UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2019

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

For the transition period from _

Commission File Number 1-16417



NUSTAR ENERGY L.P.

(Exact name of registrant as specified in its charter)

Delaware

74-2956831

(State or other jurisdiction of incorporation or organization)

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

Name of each exchange on which

19003 IH-10 West San Antonio, Texas (Address of principal executive offices) 78257 (Zip Code)

Registrant's telephone number, including area code (210) 918-2000

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

	Title of each class	Trading Symbol(s)	registered	
Common units		NS	New York Stock Exchang	ge
Series A Fixed-to-Floating Rate C	Cumulative Redeemable Perpetual Preferred Units	NSprA	New York Stock Exchang	ge
Series B Fixed-to-Floating Rate C	umulative Redeemable Perpetual Preferred Units	NSprB	New York Stock Exchang	ge
Series C Fixed-to-Floating Rate C	umulative Redeemable Perpetual Preferred Units	NSprC	New York Stock Exchang	ge
Securities registered pursuant to	12(g) of the Act: None.			
Indicate by check mark if the regis	strant is a well-known seasoned issuer, as defined in Rule 405	of the Securities Act. Yes $\ensuremath{\square}$ No o		
Indicate by check mark if the regis	strant is not required to file reports pursuant to Section 13 or S	Section 15(d) of the Act. Yes o No 🗵		
	e registrant (1) has filed all reports required to be filed by Sec iod that the registrant was required to file such reports), and (` '	0	
	e registrant has submitted electronically every Interactive Da he preceding 12 months (or for such shorter period that the re		<u> </u>	n S-T
3	e registrant is a large accelerated filer, an accelerated filer, a rarge accelerated filer," "accelerated filer," "smaller reporting	, ,	0 1 7	, 0
Large accelerated filer		Accel	erated filer	
Non-accelerated filer		Small	er reporting company	
		Emerg	ging 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. o

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

The aggregate market value of the common units held by non-affiliates was approximately \$2.7 billion based on the last sales price quoted as of June 28, 2019, the last business day of the registrant's most recently completed second quarter.

The number of common units outstanding as of January 31, 2020 was 108,527,939.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Proxy Statement for the registrant's 2020 annual meeting of unitholders, expected to be filed within 120 days after the end of the fiscal year covered by this Form 10-K, are incorporated by reference into Part III to the extent described therein.

Signatures

NUSTAR ENERGY L.P. FORM 10-K

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PART I

Unless otherwise indicated, the terms "NuStar Energy," "the Partnership," "we," "our" and "us" are used in this report to refer to NuStar Energy L.P., to one or more of our consolidated subsidiaries or to all of them taken as a whole.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

In this Form 10-K, we make certain forward-looking statements, including statements regarding our plans, strategies, objectives, expectations, estimates, predictions, projections, assumptions, intentions and resources. While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business, actual results will almost always vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance suggested in this report. These forward-looking statements can generally be identified by the words "anticipates," "believes," "expects," "plans," "intends," "estimates," "forecasts," "budgets," "projects," "will," "could," "may" and similar expressions. These statements reflect our current views with regard to future events and are subject to various risks, uncertainties and assumptions, which may cause actual results to differ materially. Please read Item 1A. "Risk Factors" for a discussion of certain of those risks, uncertainties and assumptions.

If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those described in any forward-looking statement. Other unknown or unpredictable factors could also have material adverse effects on our future results. Readers are cautioned not to place undue reliance on this forward-looking information, which is as of the date of this Form 10-K. We do not intend to update these statements unless we are required by the securities laws to do so, and we undertake no obligation to publicly release the result of any revisions to any such forward-looking statements that may be made to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

ITEMS 1., 1A. and 2. BUSINESS, RISK FACTORS AND PROPERTIES

OVERVIEW

NuStar Energy L.P. (NuStar Energy), a Delaware limited partnership, was formed in 1999 and completed its initial public offering of common units on April 16, 2001. Our common units trade on the New York Stock Exchange (NYSE) under the symbol "NS," and our fixed-to-floating rate cumulative redeemable perpetual preferred units trade on the NYSE under the symbol "NSprA" for our 8.50% Series A Preferred Units, "NSprB" for our 7.625% Series B Preferred Units and "NSprC" for our 9.00% Series C Preferred Units. Our principal executive offices are located at 19003 IH-10 West, San Antonio, Texas 78257, and our telephone number is (210) 918-2000.

We are engaged in the transportation of petroleum products and anhydrous ammonia, and the terminalling, storage and marketing of petroleum products. The term "throughput" as used in this document generally refers to barrels of crude oil or refined product or tons of ammonia, as applicable, that pass through our pipelines, terminals or storage tanks.

We divide our operations into the following three reportable business segments: pipeline, storage and fuels marketing. As of December 31, 2019, our assets included 9,960 miles of pipeline and 74 terminal and storage facilities, which provide approximately 74 million barrels of storage capacity. The following table summarizes operating income for each of our business segments:

	 Year Ended December 31, 2019
	(Thousands of Dollars)
Pipeline	\$ 332,480
Storage	\$ 154,105
Fuels marketing	\$ 20,578

We conduct our operations through our wholly owned subsidiaries, primarily NuStar Logistics, L.P. (NuStar Logistics) and NuStar Pipeline Operating Partnership L.P. (NuPOP). Our revenues include:

- · tariffs for transporting crude oil, refined products and anhydrous ammonia through our pipelines;
- fees for the use of our terminal and storage facilities and related ancillary services; and
- sales of petroleum products.

We strive to increase unitholder value by:

- · enhancing our existing assets through strategic internal growth projects that expand our business with current and new customers;
- pursuing strategic projects to expand and optimize our existing assets and to construct new assets;
- · improving our operations, including safety and environmental stewardship, cost control and asset reliability; and
- identifying strategic acquisition targets that meet our financial criteria.

Our internet website address is http://www.nustarenergy.com. Information contained on our website is not part of this report. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments thereto, filed with (or furnished to) the Securities and Exchange Commission (SEC) are available on our website, free of charge, as soon as reasonably practicable after we file or furnish such material (select the "Investors" link, then the "SEC Filings" link). We also post our corporate governance guidelines, code of business conduct and ethics, code of ethics for senior financial officers and the charters of our board's committees on our website free of charge (select the "Investors" link, then the "Corporate Governance" link).

Our governance documents are available in print to any unitholder that makes a written request to Corporate Secretary, NuStar Energy L.P., 19003 IH-10 West, San Antonio, Texas 78257 or corporatesecretary@nustarenergy.com.

RECENT DEVELOPMENTS

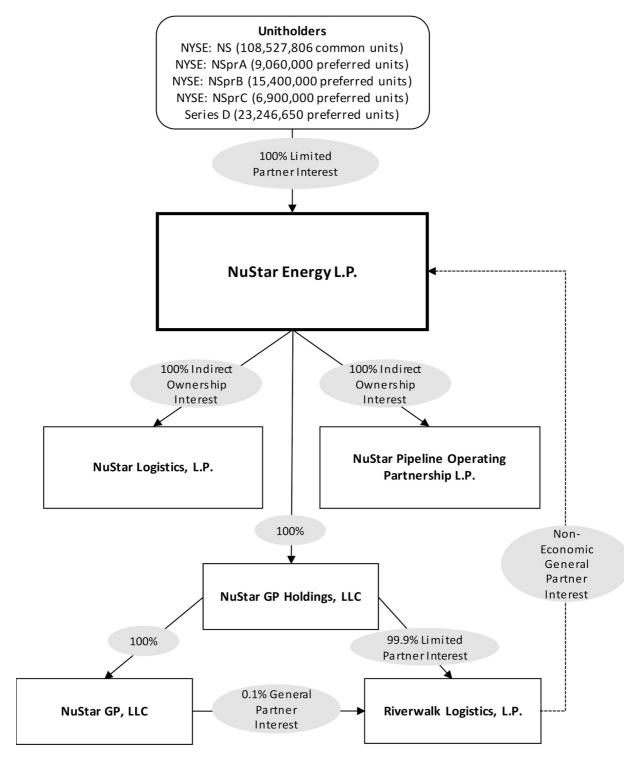
In 2019, we continued to execute on the comprehensive plan that we began in 2018, which included simplifying our corporate structure and eliminating the incentive distribution rights, reducing our leverage metrics and improving our distribution coverage ratio. Those actions, combined with our sale of the European operations in the fourth quarter of 2018 and the St. Eustatius operations in the third quarter of 2019, reduced our need to access the equity markets to finance future growth opportunities. During 2019, we continued to enhance our position by accomplishing our three core operational goals for 2019: executing our capital projects; exercising financial discipline; and maintaining safe, reliable operations. We believe we have enhanced our financial flexibility to allow for strong, stable growth. Furthermore, since we completed several major pipeline projects in 2019, we expect significantly lower capital expenditures in 2020.

Completed Projects. In the third quarter of 2019, we completed construction of a 30-inch crude oil pipeline from Taft, Texas to our Corpus Christi North Beach terminal to transport volumes from the Permian Basin to Corpus Christi, Texas for export. We also completed an expansion project on our Valley Pipeline System, which originates in Corpus Christi and runs south to the Rio Grande Valley, and reactivated our refined products pipeline in South Texas to transport diesel to our Nuevo Laredo terminal in Mexico.

Sale of St. Eustatius Operations and Impairments. On July 29, 2019, we sold our St. Eustatius terminal and bunkering operations (the St. Eustatius Operations) for net proceeds of approximately \$230.0 million (the St. Eustatius Disposition). The St. Eustatius Disposition included a 14.3 million barrel storage and terminalling facility and related assets on the island of St. Eustatius in the Caribbean Netherlands. We previously reported the terminal operations in our storage segment and the bunkering operations in our fuels marketing segment. We sold these non-core assets, which were not synergistic with our other operations, as part of our plan to significantly improve our debt metrics and partially fund capital projects to grow our core business. We also recorded long-lived asset and goodwill impairment charges totaling \$336.8 million related to the St. Eustatius Operations. The impairment charges are recorded in discontinued operations. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the sale and impairment charges.

Issuance of Debt. On May 22, 2019, NuStar Logistics issued \$500.0 million of 6.0% senior notes due June 1, 2026. We received net proceeds of \$491.6 million, which we used to repay outstanding borrowings under our revolving credit agreement. Please refer to Note 14 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further information.

ORGANIZATIONAL STRUCTURE AS OF DECEMBER 31, 2019



SEGMENTS

Detailed financial information about our segments is included in the Results of Operations section of Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 26 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data." The following map depicts our assets at December 31, 2019:



PIPELINE

Our pipeline operations consist of the transportation of refined products, crude oil and anhydrous ammonia. As of December 31, 2019, we owned and operated:

- refined product pipelines with an aggregate length of 3,205 miles and crude oil pipelines with an aggregate length of 2,155 miles in Texas, Oklahoma, Kansas, Colorado and New Mexico (collectively, the Central West System);
- a 2,150-mile refined product pipeline originating in southern Kansas and terminating at Jamestown, North Dakota, with a western extension to North Platte, Nebraska and an eastern extension into Iowa (the East Pipeline);
- a 450-mile refined product pipeline originating at Marathon Petroleum Corporation's (Marathon) Mandan, North Dakota refinery and terminating in Minneapolis, Minnesota (the North Pipeline); and
- a 2,000-mile anhydrous ammonia pipeline originating from the Louisiana delta area and then running north through the Midwestern United States to Missouri before forking east and west to terminate in Indiana and Nebraska (the Ammonia Pipeline).

The following table lists information about our pipeline assets as of December 31, 2019:

		_	For the year ended December 31,			
Region / Pipeline System	Length	Tank Capacity	2019	2018		
	(Miles)	(Barrels)	(Barrels/Da	y)		
Central West System:						
McKee Refined Product System	2,276	_	170,433	193,396		
Three Rivers System	373	_	91,765	81,174		
Valley Pipeline System	271		46,821	42,530		
Other	285	_	8,834	8,600		
Central West Refined Products Pipelines	3,205		317,853	325,700		
Corpus Christi Crude Pipeline System	538	2,157,000	414,189	215,227		
McKee Crude System	598	1,039,000	142,263	154,718		
Ardmore System	119	824,000	88,665	70,967		
Permian Crude System	900	1,178,000	553,696	435,743		
Central West Crude Oil Pipelines	2,155	5,198,000	1,198,813	876,655		
Total Central West System	5,360	5,198,000	1,516,666	1,202,355		
Central East System:						
East Pipeline	2,150	5,897,000	161,323	150,635		
North Pipeline	450	1,494,000	50,290	50,180		
Ammonia Pipeline	2,000		28,066	30,529		
Total Central East System	4,600	7,391,000	239,679	231,344		
Total	9,960	12,589,000	1,756,345	1,433,699		

Throughout

Description of Pipelines

Central West System. The Central West System covers a total of 5,360 miles, including refined product and crude oil pipelines. The refined product pipelines have an aggregate length of 3,205 miles (Central West Refined Products Pipelines) and transport gasoline, distillates (including diesel and jet fuel), natural gas liquids and other products produced at the refineries to which they are connected, including Valero Energy Corporation's (Valero Energy) McKee and Three Rivers refineries.

The crude oil pipelines have an aggregate length of 2,155 miles (Central West Crude Oil Pipelines) and transport crude oil and other feedstocks to the refineries to which they are connected, including Valero Energy's McKee, Three Rivers and Ardmore refineries, or from the Permian Basin and Eagle Ford Shale regions to our North Beach marine export terminal or to third-party refineries in Corpus Christi, Texas. In the third quarter of 2019, we completed construction of a 30-inch crude oil pipeline from Taft, Texas to our Corpus Christi North Beach terminal to transport volumes from the Permian Basin to Corpus Christi, Texas for export. We refer to our legacy pipelines that transport crude oil from the Eagle Ford and Permian Basin regions to Corpus Christi, together with our new 30-inch pipeline, as the Corpus Christi Crude Pipeline System.

Our Permian Crude System consists of crude oil transportation, pipeline connection and storage assets located in the Midland Basin of West Texas. The Permian Crude System is an interconnected system that aggregates receipts from wellhead connection lines into intra-basin trunk lines for delivery to regional hubs and to connections with third-party mainline takeaway pipelines. The system consists of 900 miles of pipelines and covers over 500,000 dedicated acres owned by producers, with approximately 275 receipt points. The Permian Crude System also includes two terminals in Texas, at Big Spring and Colorado City, as well as several truck stations and other operational storage facilities, with an aggregate storage capacity of approximately 1.2 million barrels.

Central East System. The Central East System covers a total of 4,600 miles and consists of the East Pipeline, the North Pipeline and the Ammonia Pipeline.

The East Pipeline covers 2,150 miles and transports refined products and natural gas liquids north via pipelines to our terminals and third-party terminals along the system and to receiving pipeline connections in Kansas. Shippers on the East Pipeline obtain refined products from refineries in Kansas, Oklahoma and Texas. The East Pipeline includes 18 truck-loading terminals, with storage capacity of approximately 4.5 million barrels and two tank farms with storage capacity of approximately 1.4 million barrels at McPherson and El Dorado, Kansas.

The North Pipeline originates at Marathon's Mandan, North Dakota refinery and runs from west-to-east for approximately 450 miles to its termination in the Minneapolis, Minnesota area. The North Pipeline includes four truck-loading terminals with storage capacity of approximately 1.5 million barrels.

The 2,000-mile Ammonia Pipeline originates in the Louisiana delta area, where it connects to three third-party marine terminals and three anhydrous ammonia plants located along the Mississippi River. The line then runs north through Louisiana and Arkansas into Missouri, where, at Hermann, Missouri, it splits into two branches, with one branch going east into Illinois and Indiana, while the other branch continues north into Iowa and then turns west into Nebraska. The Ammonia Pipeline is connected to multiple third-party-owned terminals, which include industrial facility delivery locations. Product is supplied to the pipeline from anhydrous ammonia plants in Louisiana and imported product delivered through the marine terminals. Anhydrous ammonia is primarily used as agricultural fertilizer. It is also used as a feedstock to produce other nitrogen derivative fertilizers and explosives.

Pipeline Operations

We charge tariffs on a per barrel basis for transporting refined products, crude oil and other feedstocks in our refined product and crude oil pipelines and on a per ton basis for transporting anhydrous ammonia in the Ammonia Pipeline. Revenues earned at storage facilities included with these pipeline systems predominately relate to the volumes transported on the pipelines through fees included in the respective pipeline tariff. As a result, these storage facilities are included in this segment instead of the storage segment.

In general, shippers on our crude oil and refined product pipelines deliver petroleum products to our pipelines for transport to/from: (i) refineries that connect to our pipelines, (ii) third-party pipelines or terminals and (iii) our terminals for further delivery to marine vessels or pipelines. We charge our shippers tariff rates based on transportation from the origination point on the pipeline to the point of delivery.

Our pipelines are subject to federal regulation by one or more of the following governmental agencies: the Federal Energy Regulatory Commission (the FERC), the Surface Transportation Board (the STB), the Department of Transportation (the DOT), the Environmental Protection Agency (the EPA) and the Department of Homeland Security. Additionally, our pipelines are subject to the respective jurisdictions of the states those lines traverse. See "Rate Regulation" and "Environmental, Health, Safety and Security Regulation" below for additional discussion.

The majority of our pipelines are deemed to be common carrier lines. Common carrier activities are those for which transportation is available to any shipper who requests such services and satisfies the conditions and specifications for transportation. Published tariffs are (i) filed with the FERC for interstate petroleum product shipments, (ii) filed with the relevant state authority for intrastate petroleum product shipments or (iii) regulated by the STB for our Ammonia Pipeline.

We operate our pipelines remotely through an operational technology system called the Supervisory Control and Data Acquisition, or SCADA, system.

Demand for and Sources of Refined Products and Crude Oil

Throughput activity on our Central West Refined Product Pipelines and the East and North Pipelines depends on the level of demand for refined products in the markets served by those pipelines, as well as the ability and willingness of the refiners and marketers with access to the pipelines to supply that demand through our pipelines.

The majority of the refined products delivered through the Central West Refined Product Pipelines and the North Pipeline are gasoline and diesel fuel that originate at refineries connected to our pipelines. Demand for motor fuels fluctuates as prices for these products fluctuate. Prices fluctuate for a variety of reasons, including the overall balance in supply and demand, which is affected by general economic conditions, among other factors. Prices for gasoline and diesel fuel usually increase in the warm weather months when people tend to drive automobiles more often and for longer distances.

Much of the refined products and natural gas liquids delivered through the East Pipeline, and a portion of volumes on the North Pipeline, are ultimately used as fuel for railroads, ethanol denaturant or in agricultural operations, including fuel for farm

equipment, irrigation systems, trucks used for transporting crops and crop-drying facilities. Demand for refined products for agricultural use, and the relative mix of products required, is affected by weather conditions in the markets served by the East and North Pipelines. The agricultural sector is also affected by government agricultural policies and crop commodity prices. Although periods of drought suppress agricultural demand for some refined products, particularly those used for fueling farm equipment, the demand for fuel to power irrigation systems often increases during such times. The mix of refined products delivered for agricultural use varies seasonally, with gasoline demand peaking in early summer, diesel fuel demand peaking in late summer and propane demand higher in the fall.

Our refined product pipelines are also dependent upon adequate levels of production of refined products by refineries connected to the pipelines, directly or through connecting pipelines. The refineries are, in turn, dependent upon adequate supplies of suitable grades of crude oil. Certain of our Central West Refined Products Pipelines are connected directly to Valero Energy refineries and are subject to long-term throughput agreements with Valero Energy. If operations at one of these refineries were discontinued or significantly reduced, it could have a material adverse effect on our operations, although we would endeavor to minimize the impact by seeking alternative customers for those pipelines.

The North Pipeline is heavily dependent on Marathon's Mandan, North Dakota refinery, which primarily runs North Dakota crude oil (although it has the ability to process other crude oils), and an interruption in operations at the Marathon refinery could have a material adverse effect on our operations. The majority of the refined products transported through the East Pipeline are produced at three refineries located at McPherson and El Dorado, Kansas and Ponca City, Oklahoma, which are operated by CHS Inc., HollyFrontier Corporation and Phillips 66, respectively. The East Pipeline also has access to Gulf Coast supplies of products through third-party connecting pipelines that receive products originating from Gulf Coast refineries.

Other than the Valero Energy refineries and the Marathon refinery described above, if operations at any one refinery were discontinued, we believe (assuming stable demand for refined products in markets served by the refined product pipelines) that the effects thereof would be short-term in nature, and our business would not be materially adversely affected over the long-term because such discontinued production could be replaced by other refineries or other sources.

Our crude oil pipelines are dependent on our customers' continued access to sufficient crude oil and sufficient demand for refined products for our customers to operate their refineries. The supply of crude oil production (domestic and foreign) could fluctuate with the price of crude oil. Changes in crude oil prices could also affect the exploration and production of shale plays, which could affect demand for crude oil pipelines serving those regions, such as our Corpus Christi Crude Pipeline System and Permian Crude System. However, certain of our crude oil pipelines, including the McKee System, are the primary source of crude oil for our customers' refineries. Therefore, these "demand-pull" pipelines are less affected by changes in crude oil prices.

Demand for and Sources of Anhydrous Ammonia

The Ammonia Pipeline currently is the only major pipeline in the United States transporting anhydrous ammonia into the nation's corn belt. The pipeline is connected to domestic production facilities and also has the capability to receive products from outside the United States directly into the system.

Throughputs on our Ammonia Pipeline depend on overall demand for nitrogen fertilizer use, the price of natural gas, which is the primary component of anhydrous ammonia, and the level of demand for direct application of anhydrous ammonia as a fertilizer for crop production (Direct Application). Demand for Direct Application is dependent on the weather, as Direct Application is not effective if the ground is too wet or too dry.

Corn producers have fertilizer alternatives to anhydrous ammonia, such as liquid or dry nitrogen fertilizers. Liquid and dry nitrogen fertilizers are both less sensitive to weather conditions during application but are generally more costly than anhydrous ammonia. In addition, anhydrous ammonia has the highest nitrogen content of any nitrogen-derivative fertilizer.

Customers

Valero Energy, the largest customer of our pipeline segment, accounted for approximately 28% of the total segment revenues for the year ended December 31, 2019. In addition to Valero Energy, our customers include integrated oil companies, refining companies and others. No other customer accounted for more than 10% of the total revenues of the pipeline segment for the year ended December 31, 2019.

Competition and Other Business Considerations

Because pipelines are generally the lowest-cost method for intermediate and long-haul movement of crude oil and refined products, our more significant competitors are common carrier and proprietary pipelines owned and operated by major integrated and large independent oil companies and other pipeline companies in our service areas. Competition between common carrier pipelines is based primarily on transportation charges, quality of customer service and proximity to end users. Trucks may deliver products competitively for short-hauls; however, trucking costs render that mode of transportation uncompetitive with pipeline options for longer hauls or larger volumes.

Most of our refined product pipelines and certain of our crude oil pipelines within the Central West System are physically integrated with, and principally serve, refineries owned by Valero Energy. As a result, we do not believe that we will face significant competition for transportation services provided to the Valero Energy refineries we serve.

Certain of our crude oil pipelines serve areas and/or refineries that are affected by domestic shale oil production in the Eagle Ford, Permian Basin and Granite Wash regions. Our pipelines also face competition from other crude oil pipelines and truck transportation in these regions. However, some of that exposure is mitigated through our long-term contracts and minimum volume commitments with creditworthy customers.

The East and North Pipelines compete with an independent common carrier pipeline system owned by Magellan Midstream Partners, L.P. (Magellan) that operates approximately 100 miles east of and parallel to the East Pipeline and in close proximity to the North Pipeline. Certain of the East Pipeline's and the North Pipeline's delivery terminals are in direct competition with Magellan's terminals. Competition with Magellan is based primarily on transportation charges, quality of customer service and proximity to end users.

Competitors of the Ammonia Pipeline include midwest production facilities, nitrogen fertilizer substitutes and barge and railroad transportation under certain market conditions.

STORAGE

Our storage segment consists of facilities that provide storage, handling and other services for petroleum products, crude oil, specialty chemicals and other liquids.

As of December 31, 2019, we owned and operated 40 terminal and storage facilities in the United States, one terminal in Nuevo Laredo, Mexico and one terminal located in Point Tupper, Canada with an aggregate storage capacity of 61.3 million barrels. The following table sets forth information about our terminal and storage facilities as of December 31, 2019:

<u>Facility</u>	Tank Capacity
Colorado Springs, CO	328,000
Denver, CO	110,000
Albuquerque, NM	251,000
Rosario, NM	166,000
Catoosa, OK	358,000
Abernathy, TX	160,000
Amarillo, TX	269,000
Corpus Christi, TX	491,000
Corpus Christi, TX (North Beach)	3,539,000
Edinburg, TX	346,000
El Paso, TX (a)	419,000
Harlingen, TX	286,000
Laredo, TX	215,000
San Antonio, TX (b)	377,000
Southlake, TX	569,000
Nuevo Laredo, Mexico	35,000
Central West Terminals	7,919,000

<u>Facility</u>	<u>Tank Capacity</u>
Jacksonville, FL	2,593,000
St. James, LA	9,917,000
Houston, TX	86,000
Texas City, TX (b)	2,964,000
Gulf Coast Terminals	15,560,000
Blue Island, IL	690,000
Andrews AFB, MD (c)	75,000
Baltimore, MD	813,000
Piney Point, MD	5,402,000
Linden, NJ (b)	5,134,000
Paulsboro, NJ	74,000
Virginia Beach, VA (c)	41,000
North East Terminals	12,229,000
Los Angeles, CA	608,000
Pittsburg, CA	398,000
Selby, CA	2,671,000
Stockton, CA	816,000
Portland, OR	1,345,000
Tacoma, WA	391,000
Vancouver, WA (b)	774,000
West Coast Terminals	7,003,000
Benicia, CA	3,683,000
Corpus Christi, TX	4,030,000
Texas City, TX	3,141,000
Refinery Storage Tanks	10,854,000
Point Tupper, Canada	7,778,000
Total	61,343,000

- (a) We own a 67% undivided interest in the El Paso refined product terminal. The tank capacity represents the proportionate share of capacity attributable to our ownership interest.
- (b) Location includes two terminal facilities.
- (c) Terminal facility also includes pipelines to U.S. government military base locations.

Description of Major Terminal Facilities

Refinery Storage Tanks. We own and operate crude oil storage tanks with an aggregate storage capacity of 10.9 million barrels that are physically integrated with and serve refineries owned by Valero Energy at Corpus Christi and Texas City, Texas and Benicia, California. We lease our refinery storage tanks to Valero Energy in exchange for a fixed fee.

St. James, Louisiana. Our St. James terminal, which is located on the Mississippi River near St. James, Louisiana, has a total storage capacity of 9.9 million barrels. The facility is located on almost 900 acres of land, some of which is undeveloped. The majority of the storage tanks and infrastructure are suited for light crude oil, with certain of the tanks capable of fuel oil or heated crude oil storage. Additionally, the facility has one barge dock and two ship docks. Our St. James terminal is connected to (i) offshore pipelines in the Gulf of Mexico, (ii) long-haul pipelines that can receive crude oil from the Eagle Ford, Permian Basin and other domestic shale plays, and (iii) pipelines to refineries in the Gulf Coast and Midwest. The St. James terminal

also has two unit train rail facilities that are served by the Union Pacific Railroad. Each facility has the capacity to simultaneously off-load 120 railcars, at a minimum, in a 24-hour period.

Point Tupper. We own and operate a 7.8 million barrel terminalling and storage facility located at Point Tupper on the Strait of Canso, near Port Hawkesbury, Nova Scotia. This facility is the deepest ice-free marine terminal on the North American Atlantic coast, with access to the East Coast, Canada and the Midwestern United States markets via the St. Lawrence Seaway and the Great Lakes system. With one of the premier jetty facilities in North America, the Point Tupper facility can accommodate heavily laden ultra large crude carriers (ULCCs) for loading and discharging crude oil, petroleum products and petrochemicals. Crude oil and petroleum product movements at the terminal are fully automated. Separate fees apply for use of the jetty facility, as well as associated services, including pilotage, tug assistance, line handling, launch service, emergency response services and other ship services (all of which are considered optional services).

Linden, New Jersey. Our Linden terminal facility includes two terminals that provide deep-water terminalling capabilities in the New York Harbor and primarily stores petroleum products, including gasoline, jet fuel and fuel oils. The two terminals have a total storage capacity of 5.1 million barrels and can receive and deliver products via ship, barge and pipeline. The terminal facility also has two docks.

Corpus Christi North Beach. We own and operate a 3.5 million barrel crude oil storage and terminalling facility located at the Port of Corpus Christi in Texas. The facility supports our pipelines that transport crude oil from the Eagle Ford and Permian Basin regions to Corpus Christi and is also connected to a third-party pipeline systems, providing our customers with the flexibility to segregate and deliver crude oil and processed condensate. This facility has access to four docks, including one dock for which we have exclusive-use that is able to accommodate Aframax-class vessels and two private docks. We can load crude oil onto ships simultaneously on all four docks. The completion of the 30-inch crude oil pipeline from Taft, Texas to our Corpus Christi North Beach terminal in 2019 provides our customers the ability to transport volumes from the Permian Basin to Corpus Christi, Texas for export.

We refer to our pipelines that transport crude oil from the Eagle Ford and Permian Basin regions to Corpus Christi, including our new 30-inch pipeline, together with our Corpus Christi North Beach terminal, as the Corpus Christi Crude System.

Storage Operations

We generate storage segment revenues through fees for tank storage agreements, under which a customer agrees to pay for a certain amount of storage in a tank over a period of time (storage terminal revenues), and throughput agreements, under which a customer pays a fee per barrel for volumes moved through our terminals (throughput terminal revenues). Our terminals also provide blending, additive injections, handling and filtering services for which we charge additional fees. We lease our Refinery Storage Tanks to Valero Energy in exchange for a fixed fee. Certain of our facilities charge fees to provide marine services, such as pilotage, tug assistance, line handling, launch service, emergency response services and other ship services.

Demand for Refined Products and Crude Oil

The operations of our refined product terminals depend in large part on the level of demand for products stored in our terminals in the markets served by those assets. Demand for our terminalling services will generally increase or decrease with demand for refined products, and demand for refined products tends to increase or decrease with the relative strength of the economy. In addition, the forward pricing curve can have an impact on demand. For example, in a contango market (when the price of a commodity is expected to exceed current prices), demand for storage services will generally increase.

Crude oil delivered to our St. James and Corpus Christi North Beach terminals will generally increase or decrease with crude oil production rates in the Bakken, Permian and Eagle Ford shale plays. In addition, the market price relationship between various grades of crude oil impacts the demand for our unit train facilities at our St. James terminal.

The dramatic increase in North American shale play production has increased exports of crude oil from U.S. ports, including our Corpus Christi North Beach facility, to destinations as close as the U.S. East Coast, to as far away as Europe and Asia.

Customers

We provide storage and terminalling services for crude oil and refined products to many of the world's largest producers of crude oil, integrated oil companies, chemical companies, oil traders and refiners. In addition, our blending capabilities in our storage assets have attracted customers who have leased capacity primarily for blending purposes. Valero Energy, the largest customer of our storage segment, accounted for approximately 25% of the total revenues of the segment for the year ended December 31, 2019. No other customer accounted for a significant portion of the total revenues of the storage segment for the year ended December 31, 2019.

Competition and Other Business Considerations

Many major energy and chemical companies own extensive terminal storage facilities. Although such terminals often have the same capabilities as terminals owned by independent operators, they generally do not provide terminalling services to third parties. In many instances, major energy and chemical companies that own storage and terminalling facilities are also significant customers of independent terminal operators. Such companies typically have strong demand for terminals owned by independent operators when independent terminals have more cost-effective locations near key transportation links, such as deep-water ports. Major energy and chemical companies also need independent terminal storage when their owned storage facilities are inadequate, either because of size constraints, the nature of the stored material or specialized handling requirements.

Independent terminal owners generally compete on the basis of the location and versatility of terminals, service and price. A favorably located terminal will have access to various cost-effective transportation modes both to and from the terminal. Transportation modes typically include waterways, railroads, roadways and pipelines.

Terminal versatility is a function of the operator's ability to offer complex handling requirements for diverse products. The services typically provided by the terminal include, among other things, the safe storage of the product at specified temperature, moisture and other conditions, as well as receipt at and delivery from the terminal, all of which must comply with applicable environmental regulations. A terminal operator's ability to obtain attractive pricing is often dependent on the quality, versatility and reputation of the facilities owned by the operator. Although many products require modest terminal modification, operators with versatile storage capabilities typically require less modification prior to usage, ultimately making the storage cost to the customer more attractive.

Our crude oil refinery storage tanks are physically integrated with and serve refineries owned by Valero Energy, and we have entered into various agreements with Valero Energy governing the use of these tanks. As a result, we believe that we will not face significant competition for our services provided to those refineries.

FUELS MARKETING

The fuels marketing segment includes our bunkering operations in the Gulf Coast, as well as certain of our blending operations associated with our Central East System. The results of operations for the fuels marketing segment depend largely on the margin between our cost and the sales prices of the products we market. Therefore, the results of operations for this segment are more sensitive to changes in commodity prices compared to the operations of the pipeline and storage segments.

Customers for our bunker fuel sales are mainly ship owners, including cruise line companies, which collectively accounted for approximately 25% of the total revenues of the segment for the year ended December 31, 2019. In the sale of bunker fuel, we compete with ports offering bunker fuels that are along the route of travel of the vessel.

EMPLOYEES

As of December 31, 2019, we had 1,441 employees.

RATE REGULATION

Several of our pipelines are interstate common carrier pipelines, which are subject to regulation by the FERC under the Interstate Commerce Act (ICA) and the Energy Policy Act of 1992 (the EP Act). The ICA and its implementing regulations give the FERC authority to regulate the rates charged for service on interstate common carrier pipelines and generally require the rates and practices of interstate liquids pipelines to be just, reasonable, not unduly discriminatory and not unduly preferential. The ICA also requires tariffs that set forth the rates a common carrier pipeline charges for providing transportation services on its interstate common carrier liquids pipelines, as well as the rules and regulations governing these services, to be maintained on file with the FERC and posted publicly. The EP Act deemed certain rates in effect prior to its passage to be just and reasonable and limited the circumstances under which a complaint can be made against such "grandfathered" rates. The EP Act and its implementing regulations also allow interstate common carrier liquids pipelines to annually index their rates up to a prescribed ceiling level and require that such pipelines index their rates down to the prescribed ceiling level if the index is negative. In addition, the FERC retains cost-of-service ratemaking, market-based rates and settlement rates as alternatives to the indexing approach.

The Ammonia Pipeline is subject to regulation by the STB pursuant to the Interstate Commerce Act applicable to such pipelines (which differs from the ICA applicable to interstate liquids pipelines). Under that regulation, the Ammonia Pipeline's rates, classifications, rules and practices related to the interstate transportation of anhydrous ammonia must be reasonable and, in

providing interstate transportation, the Ammonia Pipeline may not subject a person, place, port or type of traffic to unreasonable discrimination.

In addition to federal regulatory body oversight, various states, including Colorado, Kansas, Louisiana, North Dakota and Texas, maintain commissions focused on the rates and practices of common carrier pipelines offering services within their borders. Although the applicable state statutes and regulations vary, they generally require that intrastate pipelines publish tariffs setting forth all rates, rules and regulations applying to intrastate service, and generally require that pipeline rates and practices be just, reasonable and nondiscriminatory.

Shippers may challenge tariff rates, rules and regulations on our pipelines. In most instances, state commissions have not initiated investigations of the rates or practices of pipelines in the absence of shipper complaints. There are no pending challenges or complaints regarding our tariffs.

ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY REGULATION

Our operations are subject to extensive international, federal, state and local environmental laws and regulations, in the U.S. and in the other countries in which we operate, including those relating to the discharge of materials into the environment, waste management, remediation, the characteristics and composition of fuels, climate change and greenhouse gases. Our operations are also subject to extensive health, safety and security laws and regulations, including those relating to worker and pipeline safety, pipeline and storage tank integrity and operations security. The principal environmental, health, safety and security risks associated with our operations relate to unauthorized emissions into the air, releases into soil, surface water or groundwater, personal injury and property damage. We have adopted policies, practices, systems and procedures designed to comply with the laws and regulations, and to help mitigate these risks, limit the liability that could result from such events, prevent material environmental or other damage, ensure the safety of our employees and the public and secure our pipelines, terminals and operations. Compliance with environmental, health, safety and security laws, regulations and related permits increases our capital expenditures and operating expenses, and violation of these laws, regulations or permits could result in significant civil and criminal liabilities, injunctions or other penalties.

In 2019, our capital expenditures attributable to compliance with environmental regulations were \$11.6 million, and we currently project regulatory compliance spending of approximately \$5.6 million in 2020. However, future governmental actions could result in more restrictive laws and regulations, which could increase required capital expenditures and operating expenses. At this time, we are unable to estimate either the impact, if any, of potential future regulation and/or legislation on our financial condition or results of operations, or the amount and timing of such possible future expenditures or expenses. We believe that we are in substantial compliance with the environmental, health, safety and security laws and regulations applicable to our operations, but risk of additional compliance expenditures, expenses and liabilities are inherent to government-regulated industries, including midstream energy. As a result, there can be no assurances that significant expenditures, expenses and liabilities will not be incurred in the future. However, while compliance may affect our capital expenditures and operating expenses, we believe that the cost of such compliance will not have a material impact on our competitive position, financial condition or results of operations. Further, we do not believe that our cost of compliance is proportionately greater than the cost to other companies operating in our industry.

Discussed below are the primary U.S. environmental, health, safety and security laws applicable to our operations. Compliance with or violations of any of these laws and related regulations could result in significant expenditures, expenses and liabilities.

OCCUPATIONAL SAFETY AND HEALTH

We are subject to the Occupational Safety and Health Act, as amended, and analogous or more stringent international, state and local laws and regulations for the protection of worker safety and health. In addition, we have operations subject to the Occupational Safety and Health Administration's Process Safety Management regulations. These regulations apply to processes that involve certain chemicals at or above specified thresholds.

FUEL STANDARDS AND RENEWABLE ENERGY

International, federal, state and local laws and regulations regulate the fuels we transport and store for our customers. Changes in these laws or regulations could affect our earnings, including by reducing our throughput volumes, or require capital expenditures and expenses to segregate and separately store fuels. In addition, several federal and state programs require, subsidize or encourage the purchase and use of renewable energy, electric battery-powered motor vehicle engines and alternative fuels, such as biodiesel. These programs may over time offset projected increases or reduce the demand for refined products, particularly gasoline, in certain markets. However, the increased production and use of biofuels may also create opportunities for pipeline transportation and fuel blending. Other legislative changes in the future may similarly alter the expected demand and supply projections for refined products in ways that cannot be predicted.

HAZARDOUS SUBSTANCES & HAZARDOUS WASTE

The Federal Comprehensive Environmental Response, Compensation and Liability Act, referred to as CERCLA or "Superfund," and analogous or more stringent international, state and local laws and regulations, impose restrictions and liability related to the release, threatened release, disposal and remediation of hazardous substances. This liability can be joint and several strict liability, without regard to fault or the legality of the original release or disposal. Current operators of a facility, past owners or operators of a facility and parties who arranged for the disposal of a hazardous substance can be held liable under these laws and regulations.

We currently own, lease, and operate on, and have in the past owned, leased and operated on, properties and at facilities that handled, transported and stored hazardous substances. Our current operating and disposal practices comply with applicable laws, regulations and industry standards, and we believe our past practices complied at the time. Despite our compliance, hazardous substances may have been released on or under our facilities and properties, or on or under locations where these substances were taken for disposal. We are currently remediating subsurface contamination at several facilities, and, based on currently available information, we believe the costs related to these remedial activities should not materially affect our financial condition or results of operations. However, the aggregate total cost of remediation projects can be difficult to estimate, and there are no assurances that the cost of future remedial activities will not become material. Further, applicable laws or regulation, including those dictating the degree of remediation required, may be revised to be more restrictive in the future. As a result, we are unable to estimate the effect of future regulation on our financial condition or results of operations or the amount and timing of future expenditures required to comply with such possible regulatory changes.

The Federal Resource Conservation and Recovery Act, as amended, and analogous or more stringent international, state and local laws and regulations impose restrictions and strict controls regarding the handling and disposal of wastes, including hazardous wastes. We generate hazardous wastes and it is possible that additional wastes, which could include wastes currently generated during operations, will be designated as hazardous wastes in the future. Hazardous wastes are subject to more rigorous requirements than are non-hazardous wastes.

AIR

The Federal Clean Air Act, as amended, and various applicable international, state and local laws and regulations impose restrictions and strict controls regarding emission into the air. These laws and regulations generally require permits issued by applicable federal or state authorities for emissions, and impose monitoring and reporting requirements. Such laws and regulations can also require pre-approval for the construction or modification of certain operations or facilities expected to produce or increase air emissions.

WATER

The Federal Water Pollution Control Act, as amended, also known as the Clean Water Act, and analogous or more stringent international, state and local laws and regulations impose restrictions and strict controls regarding the discharge of pollutants into state waters or waters of the United States. The discharge of pollutants into waters is generally prohibited, except in accordance with a permit issued by applicable federal or state authorities. The Oil Pollution Act further regulates the discharge of oil, and the response to and liability for oil spills, and the Rivers and Harbors Act regulates pipelines crossing navigable waters.

PIPELINE AND OTHER ASSET INTEGRITY, SAFETY AND SECURITY

Our pipeline, storage tank and other operations are subject to extensive international, federal, state and local laws and regulations governing integrity and safety, including those in Title 49 of the U.S. Code and its implementing regulations. These laws and regulations include the Pipeline and Hazardous Materials Safety Administration's requirements for safe pipeline design, construction, operation, maintenance, inspection, testing and corrosion control, control rooms and qualification programs for operating personnel. In addition, we have marine terminal operations subject to Coast Guard safety, integrity and security regulations and standards. We also have operations subject to the Department of Homeland Security Chemical Facility Anti-Terrorism Standards and Transportation Security Administration's Pipeline Security Guidelines. We believe that we are in material compliance with all applicable laws and regulations regarding the security of our facilities.

While we are not currently required to implement specific governmental regulatory protocols for the protection of our computer-based systems and technology from cyber threats and attacks, proposals to do so are being considered by a number of U.S. governmental departments and agencies, including the Department of Homeland Security. We currently have our own cybersecurity programs and protocols in place; however, we cannot guarantee their effectiveness, and successful penetration of our critical systems could have a material effect on our operations and those of our customers and vendors.

RISK FACTORS

RISKS RELATED TO OUR BUSINESS

We may not be able to generate sufficient cash from operations to enable us to pay quarterly distributions to our unitholders.

The amount of cash that we can distribute to our unitholders each quarter principally depends upon the amount of cash we generate from our operations, based on, among other things:

- domestic and foreign governmental laws, regulations, sanctions, embargoes and taxes;
- · prevailing economic conditions;
- demand for and supply of crude oil, refined products and anhydrous ammonia;
- volumes transported in our pipelines;
- volumes stored in our terminals and storage facilities;
- tariff and/or contractually determined rates and fees we charge and the revenue we realize for our services;
- · the effect of worldwide energy conservation measures on demand for and consumption of crude oil and refined products;
- our operating costs;
- the costs to comply with environmental, health, safety and security laws and regulations;
- weather conditions; and
- the results of our marketing, trading and hedging activities, which fluctuate depending upon the relationship between refined product prices and prices of crude oil and other feedstocks.

Furthermore, the amount of cash that we will have available for distribution depends on a number of other factors, including:

- · our debt service requirements and restrictions on distributions contained in our current or future financing agreements;
- our capital expenditures;
- availability of and access to equity capital and debt markets;
- fluctuations in our working capital needs;
- adjustments in cash reserves made by our board of directors, in its discretion; and
- the sources of cash used to fund our acquisitions, if any.

Moreover, the total amount of cash that we have available for distribution to common unitholders is further reduced by the required distributions with respect to our preferred units.

It is possible that one or more of the factors listed above may reduce our available cash to such an extent that we could be rendered unable to pay distributions at the current level or at all in a given quarter. Cash distributions to our unitholders depend primarily upon our cash flows, including cash flows from reserves and working capital borrowings, and not solely on profitability, which is affected by non-cash items; in other words, we may be able to make cash distributions during periods in which we record net losses and may not be able to make cash distributions during periods in which we record net income.

An extended period of reduced demand for or supply of crude oil and refined products could have an adverse impact on our results of operations, cash flows and ability to make distributions to our unitholders.

Our business is ultimately dependent upon the long-term demand for and supply of the crude oil and refined products we transport in our pipelines and store in our terminals. Market prices for crude oil and refined products, including fuel oil, are subject to wide fluctuation in response to changes in global and regional supply that are beyond our control, and increases in the price of crude oil may result in a lower demand for refined products that we transport, store and market, including fuel oil. Any sustained decrease in demand for refined products in the markets our pipelines and terminals serve that extends beyond the expiration of our existing throughput and deficiency agreements could result in a significant reduction in throughputs in our pipelines and storage in our terminals, which would reduce our cash flows and impair our ability to make distributions to our unitholders. Factors that tend to decrease market demand include:

- a recession or other adverse economic condition that results in lower spending by consumers on gasoline, diesel and travel;
- higher fuel taxes or other governmental or regulatory actions that increase, directly or indirectly, the cost of gasoline;
- an increase in aggregate automotive engine fuel economy;
- new regulations or court decisions requiring the phase out or reduced use of gasoline-fueled vehicles;
- the increased use of alternative fuel sources;
- an increase in the market price of crude oil that increases refined product prices, which may reduce demand for refined products and drive demand for alternative products; and

a decrease in corn acres planted for ethanol, which may reduce demand for anhydrous ammonia.

Similarly, any sustained decrease in the supply of crude oil and refined products in markets we serve could result in a significant reduction in throughputs in our pipelines and storage in our terminals, which would reduce our cash flows and undermine our ability to make distributions to our unitholders. Factors that tend to decrease supply and, by extension, utilization of our pipelines and terminals include:

- prolonged periods of low prices for crude oil and refined products that result in decreased exploration and development activity and reduced production in markets served by our pipelines and storage terminals:
- a lack of drilling services or equipment available to producers to accommodate production needs;
- changes in laws, regulations, sanctions or taxation that directly or indirectly delay supply or production or increase the cost of production of refined products; and
- macroeconomic forces affecting, or actions taken by, oil and gas producing nations that impact supply of and prices for crude oil and refined products.

If we were unable to retain or replace current customers and existing contracts to maintain utilization of our pipeline and storage assets at current or more favorable rates, our revenue and cash flows could be reduced to levels that could adversely affect our ability to make quarterly distributions to our unitholders.

Our revenue and cash flows are generated primarily from our customers' payments of fees under throughput contracts and storage agreements. Failure to renew or enter into new contracts or our customers' material reduction of utilization under existing contracts could result from many factors, including:

- continued low crude oil prices;
- a material decrease in the supply or price of crude oil;
- a material decrease in demand for refined products in the markets served by our pipelines and terminals;
- political, social or economic instability in the U.S. or another country impacting customers based there and our ability to conduct our operations there:
- · competition for customers from companies with comparable assets and capabilities;
- scheduled turnarounds or unscheduled maintenance at refineries we serve;
- operational problems or catastrophic events affecting our assets or customers we serve;
- environmental or regulatory proceedings or other litigation that compel the cessation of all or a portion of the operations of our assets or customers we serve;
- increasingly stringent environmental, health, safety and security regulations;
- a decision by our current customers to redirect refined products transported in our pipelines to markets not served by our pipelines or to transport crude oil or refined products by means other than our pipelines; or
- a decision by our current customers to sell one or more of the refineries we serve to a purchaser that elects not to use our pipelines and terminals.

Depending on conditions in the credit and capital markets at a given time, we may not be able to obtain funding on acceptable terms or at all, which may hinder or prevent us from meeting our future capital needs.

From time to time, the domestic and global financial markets and economic conditions are volatile and disrupted by a variety of factors, including low consumer confidence, high unemployment, geoeconomic and geopolitical issues, weak economic conditions, uncertainty in the market and negative sentiment toward energy-related companies generally, or master limited partnerships specifically. In addition, there are fewer investors and lenders for master limited partnership debt and equity capital market issuances than there are for corporate issuances. As a result, the cost of raising capital in the debt and equity capital markets could increase substantially, possibly at a time when the availability of funds from these markets has diminished. The cost of obtaining funds from the credit markets may increase as interest rates increase and tighter lending standards are enacted, and lenders may refuse to refinance existing debt on similar terms or at all and reduce, or in some cases cease to provide, funding to borrowers.

As of December 31, 2019, we had \$3.4 billion of consolidated debt, of which \$1.5 billion (including our revolving credit facility) matures within the next five years. Due to these factors, we cannot be certain that we will be able to refinance our maturing debt or that new financing or funding will be available on acceptable terms. If funding is not available when needed, or is available only on unfavorable terms, we may be unable to execute our growth strategy, complete future acquisitions or construction projects or take advantage of other business opportunities, any of which could have a material adverse effect on our revenues and results of operations.

Our future financial and operating flexibility may be adversely affected by our significant leverage, any future downgrades of our credit ratings, restrictions in our debt agreements and conditions in the financial markets.

As of December 31, 2019, our consolidated debt was \$3.4 billion, and we have the ability to incur more debt. In addition to any potential direct financial impact of our debt, it is possible that any material increase to our debt or other adverse financial

factors may be viewed negatively by credit rating agencies, which could result in ratings downgrades, increased costs for us to access the capital markets and an increase in interest rates on amounts borrowed under our revolving credit agreement.

Our revolving credit agreement contains restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. In addition, the revolving credit agreement generally limits us to a consolidated debt coverage ratio (consolidated debt to consolidated EBITDA, each as defined in the revolving credit agreement) not to exceed 5.00-to-1.00 and requires us to maintain a minimum consolidated interest coverage ratio (as defined in the revolving credit agreement) of at least 1.75-to-1.00. Failure to comply with any of the revolving credit agreement restrictive covenants or the maximum consolidated debt coverage ratio or minimum consolidated interest coverage ratio requirements would constitute an event of default and could result in acceleration of our obligations under the revolving credit agreement and possibly other agreements. The letter of credit agreements supporting our Gulf Opportunity Zone bonds contain comparable covenants and ratios, and future financing agreements we may enter into may contain similar or more restrictive covenants and ratio requirements than those we have negotiated for our current financing agreements.

Our accounts receivable securitization program contains various customary affirmative and negative covenants and default, indemnification and termination provisions, and the related receivables financing agreement provides for acceleration of amounts owed upon the occurrence of certain specified events.

Our debt service obligations, restrictive covenants, ratio requirements and maturities may adversely affect our ability to finance future operations, pursue acquisitions, fund our capital needs and pay cash distributions to our unitholders. In addition, this leverage may make our results of operations more susceptible to adverse economic or operating conditions, limit our flexibility in planning for, or reacting to, changes in our business and industry and place us at a competitive disadvantage compared to competitors with proportionately less indebtedness. For example, during an event of default under certain of our debt agreements, we would be prohibited from making cash distributions to our unitholders.

Our ability to service our debt will depend on, among other things, our future financial and operating performance, which will be affected by prevailing economic conditions and financial, business, regulatory and other factors, some of which are beyond our control. If our operating results are not sufficient to service our indebtedness, we may be required to reduce our distributions, reduce or delay our business activities, investments or capital expenditures, sell assets or issue equity, which could materially and adversely affect our financial condition, results of operations, cash flows and ability to make distributions to unitholders, as well as the trading price of our units.

Increases in interest rates could adversely affect our business and the trading price of our units.

We have significant exposure to increases in interest rates through variable rate provisions in certain of our debt instruments and our Series A, B and C preferred units. At December 31, 2019, we had approximately \$3.4 billion of consolidated debt, of which \$2.1 billion was at fixed interest rates and \$1.3 billion was at variable interest rates. Additionally, at December 31, 2019, the aggregate notional amount of our interest rate swap arrangements was \$250.0 million, which expire in September 2020 and may expose us to risk of financial loss. In addition, the distribution rates on our Series A, B and C preferred units convert from fixed rates to floating rates, beginning in December 2021, June 2022 and December 2022, respectively. Our results of operations, cash flows and financial position could be materially adversely affected by significant changes in interest rates.

Furthermore, we have historically funded our strategic capital expenditures and acquisitions from external sources, primarily borrowings under our revolving credit agreement or funds raised through debt or equity offerings. An increase in interest rates may also have a negative impact on our ability to access the capital markets at economically attractive rates.

Moreover, the market price of master limited partnership units, like other yield-oriented securities, may be affected by, among other factors, implied distribution yield. The distribution yield is often used by investors to compare and rank yield-oriented securities for investment decision-making purposes. Therefore, increases or decreases in interest rates may affect whether or not certain investors decide to invest in master limited partnership units, including ours, and a rising interest rate environment could have an adverse impact on our unit price and impair our ability to issue additional equity or incur debt to fund growth or for other purposes, including distributions.

We may be adversely affected by changes in the method of determining the London Interbank Offering Rate (LIBOR) or the replacement of LIBOR with an alternative reference rate.

As of December 31, 2019, we had approximately \$1.3 billion of variable-rate indebtedness, \$0.9 billion of which uses LIBOR as a benchmark for establishing the interest rate. In addition, the distribution rates on our Series A, B and C preferred units convert from fixed rates to floating rates based on LIBOR, beginning in December 2021, June 2022 and December 2022, respectively. The U.K. Financial Conduct Authority announced in 2017 that it would no longer compel banks to submit rates for the calculation of LIBOR after 2021, and it is expected that a transition away from the widespread use of LIBOR to

alternative rates will occur over the next couple of years. The consequences of these developments cannot be entirely predicted but could include an increase in the cost of our variable-rate indebtedness, our Series A, B and C preferred units and other commercial arrangements tied to LIBOR. In addition, we have incurred and expect to incur further expenses during the next couple of years to renegotiate or clarify the rate provisions in certain of our variable-rate arrangements to affect the transition away from LIBOR-based rates and implement replacement indices, as necessary, but may not be able to do so on terms favorable to us. Furthermore, uncertainty regarding the continued use and reliability of LIBOR as a benchmark rate and uncertainty regarding its replacement could disrupt the financial markets or adversely affect the value of our arrangements tied to LIBOR.

Our inability to develop, fund and execute growth projects and acquire new assets could limit our ability to maintain and grow quarterly distributions to our unitholders.

Our ability to maintain and grow our distributions to unitholders depends on the growth of our existing businesses and strategic acquisitions. Decisions regarding new growth projects rely on numerous estimates, including, among other factors, the ability to secure a commitment from a customer that sufficiently exceeds our cost of capital to justify the project cost, predictions of future demand for our services, future supply shifts, crude oil production estimates, commodity price environments, economic conditions, both domestic and foreign, and potential changes in the financial condition of our customers. Our predictions of such factors could cause us to forego certain investments and to lose opportunities to competitors who make investments based on different predictions or have greater access to financial resources. If we are unable to acquire new assets, due either to high prices or a lack of attractive synergistic targets, our future growth could be limited. In addition, our future growth will be limited if we are unable to develop additional expansion projects, implement business development opportunities and finance such activities on economically acceptable terms, which could adversely impact our results of operations and cash flows and, accordingly, result in reduced distributions over time.

Failure to complete capital projects as planned could adversely affect our financial condition, results of operations and cash flows.

Delays or cost increases related to capital spending programs involving construction of new facilities (or improvements and repairs to our existing facilities) could adversely affect our ability to achieve forecasted operating results. Although we evaluate and monitor each capital spending project and try to anticipate difficulties that may arise, delays or cost increases arise as a result of factors that are beyond our control, including:

- non-performance or delay by, or disputes with, counterparties, vendors, suppliers, contractors or sub-contractors involved with a project;
- denial or delay in issuing requisite regulatory approvals and/or permits;
- delay or increased costs to obtain right-of-way or other property rights;
- delays or failures by third parties to complete related projects;
- protests and other activist interference with planned or in-process projects;
- unplanned increases in the cost of construction materials or labor;
- disruptions in transportation of modular components and/or construction materials;
- severe adverse weather conditions, natural disasters or other events (such as hurricanes, equipment malfunctions, explosions, fires or spills)
 affecting our facilities, or those of vendors and suppliers;
- · shortages of sufficiently skilled labor, or labor disagreements resulting in unplanned work stoppages; or
- market-related increases in a project's debt or equity financing costs.

While we incur financing costs during the planning and construction phases of our projects, a project does not generate expected operating cash flows until it is completed, if at all. Additionally, our forecasted operating results from capital spending projects are based on future market fundamentals that are not within our control, including changes in general economic conditions, the supply and demand of crude oil and refined products, availability to our customers of attractively priced alternative solutions for storage, transportation or supplies of crude oil and refined products and overall customer demand.

As a result of these uncertainties, the anticipated benefits associated with our capital projects may not be achieved or could be delayed. In turn, this could have a negative impact on our results of operations and cash flow and our ability to make cash distributions to our unitholders.

Any future acquisitions could increase substantially the level of our indebtedness and contingent liabilities or otherwise change our capital structure. From time to time, we evaluate and acquire assets and businesses that we believe complement or diversify our existing assets and operations. Any future acquisitions may require us to raise a substantial amount of equity or incur a substantial amount of indebtedness. If we consummate any future material acquisitions, our capitalization and results of operations may change significantly, and unitholders will not have the opportunity to evaluate the economic, financial and other relevant information that we will consider in connection with any future acquisitions.

Competing midstream service providers, including certain major energy and chemical companies, possess, or have greater financial resources to acquire, assets better suited to meet customer demand, which could undermine our ability to obtain and retain customers or reduce utilization of our assets, which could reduce our revenues and cash flows, thereby reducing our ability to make our quarterly distributions to unitholders.

We face competition in all aspects of our business and can give no assurances that we will be able to compete effectively against our competitors. Our competitors include major energy and chemical companies, some of which have greater financial resources, more pipelines or storage terminals, greater capacity pipelines or storage terminals and greater access to supply than we do. Certain of our competitors also may have advantages in competing for acquisitions or other new business opportunities because of their financial resources and synergies in operations. As a consequence of increased competition in the industry, some of our customers may be reluctant to renew or enter into long-term contracts or contracts that provide for minimum throughput amounts in the future. Our inability to renew or replace our current contracts as they expire, to enter into contracts for newly acquired, constructed or expanded assets and to respond appropriately to changing market conditions could have a negative effect on our revenue, cash flows and ability to make quarterly distributions to our unitholders.

Our operations are subject to operational hazards and interruptions, and we cannot insure against and/or predict all potential losses and liabilities that might result therefrom.

Our operations and those of our customers and suppliers are subject to operational hazards and unforeseen interruptions due to natural disasters, adverse weather conditions (such as hurricanes, tornadoes, storms, floods and earthquakes), accidents, fires, explosions, hazardous materials releases, mechanical failures, cyberattacks, acts of terrorism and other events beyond our control. In addition, findings show global climatic changes are occurring that are likely to increase the number and severity of hurricanes and other damaging weather conditions. These events might result in a loss of life or equipment, injury or extensive property or environmental damage, as well as an interruption in our operations or those of our customers or suppliers. In the event any of our facilities, or those of our customers or suppliers, suffer significant damage or are forced to shut down for a significant period of time, it may have a material adverse effect on our earnings, our other results of operations and our financial condition as a whole.

As a result of market conditions, losses experienced by us and other companies, premiums and deductibles for certain of our insurance policies have increased and could continue to increase substantially; therefore, we may not be able to maintain or obtain insurance of the type and amount we desire at reasonable rates. In addition, certain insurance coverage is subject to broad exclusions, and may become subject to further exclusions, become unavailable altogether or become available only for reduced amounts of coverage and at higher rates. We are not fully insured against all hazards and risks to our business, and the insurance we carry requires us to meet certain deductibles before we collect for any losses we sustain. If we incur a significant liability for which we are uninsured or not fully insured, or if there is a significant delay in payment of a major insurance claim, such a liability could have a material adverse effect on our financial position.

We are exposed to counterparty credit risk. Nonpayment and nonperformance by our customers, vendors or derivative counterparties could reduce our revenues, increase our expenses and otherwise have a negative impact on our ability to conduct our business, operating results, cash flows and ability to make distributions to our unitholders.

Weak economic conditions and widespread financial stress could reduce the liquidity of our customers, vendors or counterparties, making it more difficult for them to meet their obligations to us. We are therefore subject to risks of loss resulting from nonpayment or nonperformance by our customers to whom we extend credit. Financial problems encountered by our customers could limit our ability to collect amounts owed to us, or to enforce the performance of obligations owed to us under contractual arrangements. In addition, nonperformance by vendors or their subcontractors, who have committed to provide us with critical products or services, could result in significant disruptions, raise our costs or interfere with our ability to successfully conduct our business. Furthermore, nonpayment by the counterparties to any of our outstanding derivatives could expose us to additional interest rate or commodity price risk. Although we attempt to mitigate our risk through warehouseman's liens and other security protections, we may not always be able to enforce such liens and protections due to competing claims from other parties. Any substantial increase in the nonpayment and nonperformance by our customers, vendors or counterparties or our inability to enforce our warehouseman's liens and other security protections could have a material adverse effect on our results of operations, cash flows and ability to make distributions to our unitholders.

We could be subject to damages or lose customers due to failure to maintain certain quality specifications or other claims related to the operation of our assets and the services we provide to our customers.

Certain of the products we store and transport are produced to precise customer specifications. If the quality and purity of the products we receive are not maintained and/or a product fails to perform in a manner consistent with the quality specifications required by our customers, customers have sought, and could in the future seek replacement of the product or damages for costs incurred as a result of the product failing to perform as guaranteed. We also have faced, and could in the future face, other claims by our customers if our assets do not operate as expected by our customers or our services otherwise do not meet our customers' expectations. Successful claims or a series of claims against us result in unforeseen expenditures and could result in the loss of one or more customers

Cybersecurity breaches and other disruptions could compromise our information and operations, and expose us to liability, which would cause our business and reputation to suffer and increase our costs and could adversely affect our ability to make distributions to our unitholders.

We rely on our information technology systems and our operational technology systems to process, transmit and store information, such as employee, customer and vendor data, and to conduct almost all aspects of our business, including safely operating our pipelines and storage facilities, recording and reporting commercial and financial transactions and receiving and making payments. We also rely on systems hosted by third parties, with respect to which we have limited visibility and control. The security of these networks and systems is critical to our operations and business strategy.

Despite our security measures, we could suffer a serious cybersecurity incident due to attacks from a variety of external threat actors, internal employee error or malfeasance, or even cybersecurity incidents suffered by our service providers or other vendors. In addition, certain cybersecurity incidents, such as surveillance, may remain undetected for an extended period of time. A significant failure, compromise, breach or interruption in our systems could result in a disruption of our operations, damage to our assets or the environment, safety incidents, damage to our reputation, loss of customers or revenues, increased costs for remedial actions and potential litigation or regulatory fines. If any such failure, interruption or similar event results in the loss or improper disclosure of information maintained in our systems and networks or those of our vendors, including personnel, customer and vendor information, we could also be subject to liability under relevant contractual obligations and laws and regulations protecting personal data and privacy. Our financial results could also be adversely affected if our systems are breached or an employee or vendor causes our systems to fail, either as a result of inadvertent error or by deliberately tampering with or manipulating our systems.

In recent years, there has been a rise in the number of cyberattacks generally, by both state-sponsored and criminal organizations and, as a result, the risks associated with such an event continue to increase. In addition, new laws and regulations governing data privacy and protection pose increasingly complex compliance challenges. Although we believe that we have robust cybersecurity procedures and other safeguards in place, we cannot guarantee their effectiveness, and a significant failure, compromise, breach or interruption in our systems could have a material effect on our operations and those of our customers and vendors. As threats continue to evolve and cybersecurity, data protection laws and regulations continue to develop, we expect to spend additional resources to continue to enhance our cybersecurity, data protection, business continuity and incident response measures and to investigate and remediate any vulnerabilities to or consequences of cyber incidents.

Terrorist attacks and the threat of future attacks worldwide, as well as continued hostilities in the Middle East or other sustained military campaigns, may adversely impact our results of operations.

The United States Department of Homeland Security has identified pipelines and other energy infrastructure assets as ones that might be specific targets of terrorist organizations. These potential targets might include our pipeline systems, storage facilities or operating systems and may affect our ability to operate or control our pipeline and storage assets. Increased security measures we have taken as a precaution against possible terrorist attacks have resulted in increased costs to our business. Uncertainty surrounding continued hostilities in the Middle East or other sustained military campaigns may affect our operations in unpredictable ways, including disruptions of crude oil supplies and markets for refined products, instability in the financial markets that could restrict our ability to raise capital and the possibility that infrastructure facilities could be direct targets of, or indirect casualties of, an attack.

We operate assets outside of the United States, which exposes us to different legal and regulatory requirements and additional risk.

A portion of our revenues are generated from our assets located in Canada and northern Mexico. Our operations in both locations are subject to various risks unique to each country in which we operate that could have a material adverse effect on our business, results of operations and financial condition. With respect to any particular country, these risks may include political and economic instability, including: civil unrest, war and other armed conflict; inflation; and currency fluctuations, devaluation and conversion restrictions. We are also exposed to the risk of foreign and domestic governmental actions that may: impose additional costs on us; limit or disrupt markets for our operations, restrict payments or limit the movement of funds;

impose sanctions on or otherwise restrict our ability to conduct business with certain customers or persons or in certain countries; or result in the deprivation of contract rights. Our operations outside the United States may also be affected by changes in trade protection laws, policies and measures, and other regulatory requirements affecting trade and investment, including the Foreign Corrupt Practices Act, and other foreign laws prohibiting corrupt payments, as well as import and export regulations.

We also have assets in, or have customers based in, certain developing markets, such as Mexico, and the nature of these markets presents a number of risks. In addition, due to the unsettled political conditions in many oil-producing countries, our operations may be subject to the adverse consequences of war, civil unrest, strikes, currency controls and governmental actions. Deterioration of social, political, labor or economic conditions, including the increasing threat of terrorist organizations and drug cartels, in a country or region in which we do business, or affecting a customer with whom we do business, as well as difficulties in staffing and managing foreign operations, may adversely affect our operations or financial results.

We do not own all of the land on which our pipelines and facilities are located, and we are therefore subject to the possibility of increased costs or the inability to retain necessary land use.

Like other pipeline and storage logistics services providers, certain of our pipelines, storage terminals and other facilities are located on land owned by third parties and governmental agencies that we have obtained the right to utilize for these purposes through contract (rather than through outright purchase). Many of our rights-of-way or other property rights are perpetual in duration, but others are for a specific period of time. In addition, some of our facilities are located on leased premises. A potential loss of property rights through our inability to renew right-of-way contracts or leases or otherwise retain property rights on acceptable terms or the increased costs to renew such rights could adversely affect our financial condition, results of operations and cash flows available for distribution to our unitholders.

We may be unable to obtain or renew permits necessary for our current or proposed operations, which could inhibit our ability to conduct or expand our business.

Our facilities operate under a number of federal, state and local permits, licenses and approvals with terms and conditions containing a significant number of prescriptive limits and performance standards in order to operate. These limits and standards require a significant amount of monitoring, recordkeeping and reporting in order to demonstrate compliance with the underlying permit, license or approval. Noncompliance or incomplete documentation of our compliance status may result in the imposition of fines, penalties and injunctive relief. In addition, public protest and responsive government intervention have recently made it more difficult for some energy companies to acquire the permits required to complete planned infrastructure projects. A decision by a government agency to deny or delay issuing a new or renewed permit, license or approval, or to revoke or substantially modify an existing permit, license or approval, could have a material adverse effect on our ability to continue or expand our operations and on our financial condition, results of operations, cash flows and ability to make distributions to our unitholders.

Our ability to manage and grow our business effectively may be adversely affected if we lose management or operational personnel.

We depend on the continuing efforts of our executive officers. The departure of one or more key executive officers could have a significant negative effect on our business, operating results, financial condition and on our ability to compete effectively in the marketplace.

Additionally, our ability to hire, train and retain qualified personnel continues to be important and could become more challenging in competitive energy industry market conditions. In regions experiencing rapid growth, such as the Permian Basin, and at times when general industry conditions are good, the competition for experienced operational and field technicians increases as other energy and midstream companies' needs for the same personnel increases. Our ability to continue our current level of service to our customers could be adversely impacted if we are unable to successfully hire, train and retain these important personnel.

We could be subject to liabilities from our assets that predate our acquisition of those assets, but that are not covered by indemnification rights we have against the sellers of the assets.

We have acquired assets and businesses and we are not always indemnified by the responsible seller for liabilities that precede our ownership. In addition, in some cases, we have indemnified the previous owners and operators of acquired assets or businesses. Some of our assets have been used for many years to transport and store crude oil and refined products, and past releases could require costly future remediation. If a significant release or event occurred in the past, the liability for which was not retained by the seller, or for which indemnification by the seller is not available, it could adversely affect our financial position and results of operations. Conversely, if future releases or other liabilities arise from assets we have sold, we could incur costs related to those liabilities if the buyer possesses valid indemnification rights against us with respect to those assets.

Climate change and fuels legislation and other regulatory initiatives may decrease demand for the products we store, transport and sell and increase our operating costs.

In response to findings that emissions of certain "greenhouse gases" such as carbon dioxide and methane present a danger to public health and the environment, including contributing to warming of the Earth's atmosphere, the U.S. Congress, European Union and other political bodies have considered legislation or regulation to reduce emissions of greenhouse gases. To the extent the United States and other political bodies enact climate change regulations that increase costs or reduce demand, it could have an adverse direct or indirect effect on our business.

Passage of climate change or fuels legislation or other regulatory initiatives in fuel efficiency, fuel additives, renewable fuels and other areas in which we conduct business could result in changes to the demand for the products we store, transport and sell, and could increase the costs of our operations, including costs to operate and maintain our facilities, install new emission controls on our facilities, acquire allowances to authorize our greenhouse gas or other emissions, pay any taxes related to our greenhouse gas or other emissions or administer and manage emissions programs.

In addition, certain of our blending operations can result in requirements to purchase renewable energy credits. Even though we attempt to mitigate such lost revenues or increased costs through the contracts we sign with our customers, we may be unable to recover those revenues or mitigate the increased costs, and any such recovery may depend on events beyond our control, including the outcome of future rate proceedings before the FERC or other regulators and the provisions of any final legislation or regulations. Reductions in our revenues or increases in our expenses as a result of climate change legislation or other regulatory initiatives could have adverse effects on our business, financial position, results of operations and prospects.

Finally, increasing concentrations of greenhouse gases in the Earth's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, floods and other climatic events. If any such effects were to occur, they could have an adverse effect on our assets and operations, especially those located in coastal regions.

Our operations are subject to federal, state and local laws and regulations, in the U.S. and in the other countries in which we operate, relating to environmental, health, safety and security that could require us to make substantial expenditures.

Our operations are subject to increasingly stringent international, federal, state and local environmental, health, safety and security laws and regulations. Transporting, storing and distributing hazardous materials, including petroleum products, entails the risk of releasing these products into the environment, potentially causing substantial expenditures for a response action, significant government penalties, liability to government agencies including for damages to natural resources, personal injury or property damages to private parties and significant business interruption. Further, our pipeline facilities are subject to the pipeline integrity and safety regulations of various federal and state regulatory agencies. In recent years, increased regulatory focus on pipeline integrity and safety has resulted in various proposed or adopted regulations. The implementation of these regulations has required, and the adoption of future regulations could require, us to make additional capital expenditures, including to install new or modified safety measures, or to conduct new or more extensive maintenance programs.

Current and future legislative action and regulatory initiatives could also result in changes to operating permits, material changes in operations, increased capital expenditures and operating costs, increased costs of the goods we transport and decreased demand for products we handle that cannot be assessed with certainty at this time. We may be required to make expenditures to modify operations or install pollution control equipment or release prevention and containment systems that could materially and adversely affect our business, financial condition, results of operations and liquidity if these expenditures, as with all costs, are not ultimately reflected in the tariffs and other fees we receive for our services.

We own or lease a number of properties that were used to transport, store or distribute products for many years before we acquired them; therefore, such properties were operated by third parties whose handling, disposal or release of products and wastes was not under our control. Environmental laws and regulations could impose obligations to conduct assessment or remediation efforts at our facilities, third-party sites where we take wastes for disposal, or where wastes have migrated. Environmental laws and regulations also may impose joint and several liability on us for the conduct of third parties or for actions that complied with applicable requirements when taken, regardless of negligence or fault. If we were to incur a significant liability pursuant to environmental, health, safety or security laws or regulations, such a liability could have a material adverse effect on our financial position.

Our interstate common carrier pipelines are subject to regulation by the FERC, which could have an adverse impact on our ability to recover the full cost of operating our pipelines and the revenue we are able to receive from those operations.

The FERC regulates the tariff rates and terms and conditions of service for interstate oil movements on common carrier pipelines. FERC requires that these rates be just and reasonable and that the pipeline not engage in undue discrimination with respect to any shipper. The FERC or shippers may challenge required pipeline tariff filings, including rates and terms and conditions of service. Further, other than for rates set under market-based rate authority, if a new rate is challenged by protest

and investigated by the FERC, the FERC may require the pipeline owner to refund amounts collected in excess of the deemed just and reasonable rate. In addition, shippers may challenge by complaint tariff rates and terms and conditions of service even after they take effect, and the FERC may order a carrier to change its rates prospectively to a just and reasonable level. A complaining shipper also may obtain reparations for damages sustained during the two years prior to the date of the complaint.

We are able to use various FERC-authorized rate change methodologies for our interstate pipelines, including indexed rates, cost-of-service rates, market-based rates and negotiated rates. Typically, we adjust our rates annually in accordance with the FERC indexing methodology, which currently allows a pipeline to change its rates within prescribed ceiling levels that are tied to an inflation index. For the five-year period beginning July 1, 2016, which will end on June 30, 2021, the index allows for annual changes in rates equal to the change in the Bureau of Labor's producer price index for finished goods plus 1.23%. It is possible that the index may result in negative rate adjustments in some years, or that changes in the index might not be large enough to fully reflect actual increases in our costs. The FERC's indexing methodology is subject to review and revision every five years, with the next five-year review commencing in 2020.

In March 2018, the FERC issued a Revised Policy Statement on the Treatment of Income Taxes (Revised Policy) in which the FERC reversed its previous policy and found that an impermissible double recovery results from granting a master limited partnership (MLP) pipeline both an income tax allowance (ITA) and a return on equity in determining cost-of-service rates. Pursuant to the Revised Policy, the FERC now requires liquids pipelines organized as MLPs to eliminate the MLP ITA in their Form No. 6, page 700 reporting. The FERC stated that it would incorporate the effects of the Revised Policy and the Tax Cuts and Jobs Act of 2017 on industry-wide pipeline costs in its 2020 five-year review of the indexing methodology. Depending on the outcome of that five-year review, the Revised Policy and the Tax Cuts and Jobs Act of 2017 may impact revenues received from transportation services provided pursuant to cost-of-service or index based rates in the future.

FERC has granted us authority to charge market-based rates on some of our pipelines, which are not subject to cost-of-service or indexing constraints. If we were to lose market-based rate authority, however, we could be required to establish rates on some other basis, such as cost-of-service, which could reduce our revenues and cash flows. Additionally, because competition constrains our rates in various markets, we may from time to time be forced to reduce some of our rates to remain competitive.

The rates that we may charge on our interstate ammonia pipeline are subject to regulation by the STB.

The Ammonia Pipeline is subject to regulation by the STB, which is part of the DOT. The Ammonia Pipeline's rates, rules and practices related to the interstate transportation of anhydrous ammonia must be reasonable and, in providing interstate transportation, our Ammonia Pipeline may not subject a shipper to unreasonable discrimination.

Increases in natural gas and power prices could adversely affect our operating expenses and our ability to make distributions to our unitholders.

Power costs constitute a significant portion of our operating expenses. For the year ended December 31, 2019, our power costs equaled approximately \$53.0 million, or 13.0% of our operating expenses for the year. We use mainly electric power at our pipeline pump stations and terminals, and such electric power is furnished by various utility companies that primarily use natural gas to generate electricity. Accordingly, our power costs typically fluctuate with natural gas prices, and increases in natural gas prices may cause our power costs to increase further. If natural gas prices increase, our cash flows may be adversely affected, which could adversely affect our ability to make distributions to our unitholders.

An impairment of goodwill or long-lived assets could reduce our earnings.

We have recorded \$1.0 billion of goodwill and \$4.8 billion of long-lived assets, including property, plant and equipment, net and intangible assets, net, as of December 31, 2019. U.S. generally accepted accounting principles requires us to test both goodwill and long-lived assets for impairment when events or circumstances occur indicating that either goodwill or long-lived assets might be impaired and, in the case of goodwill, at least annually. Any event that causes a reduction in demand for our services could result in a reduction of our estimates of future cash flows and growth rates in our business, which could cause us to record an impairment charge to reduce the value of goodwill. Similarly, any event or change in circumstances that causes the carrying value of our long-lived assets to no longer be recoverable may require us to record an impairment charge to reduce the value of our long-lived assets. If we determine that either our goodwill or our long-lived assets are impaired, the resulting charge will reduce earnings and partners' capital. For example, during 2019, we recorded \$305.7 million of long-lived asset impairment charges and \$31.1 million of goodwill impairment charges related to our St. Eustatius operations, which we sold in July 2019.

Our purchase and sale of petroleum products may expose us to trading losses and hedging losses, and non-compliance with our risk management policies could result in significant financial losses.

Our marketing and trading of petroleum products exposes us to commodity price volatility risk for the purchase and sale of petroleum products, including distillates and fuel oil. We attempt to mitigate this volatility risk through hedging, which may

limit our potential gains or result in potential losses, but we are still exposed to basis risk and may be required to post cash collateral under our hedging arrangements. We also may be exposed to inventory and financial liquidity risk due to the inability to trade certain products or rising costs of carrying some inventories. Further, our marketing and trading activities, including any hedging activities, may cause volatility in our earnings. In addition, we will be exposed to credit risk in the event of non-performance by counterparties.

Our risk management policies may not eliminate all price risk since open trading positions will expose us to price volatility, and there is a risk that our risk management policies will not be complied with. Although we have designed procedures to anticipate and detect non-compliance, we cannot assure you that these steps will detect and prevent all violations of our trading policies and procedures, particularly if deception and other intentional misconduct are involved.

RISKS INHERENT IN AN INVESTMENT IN US

As a master limited partnership, we do not have the same flexibility as corporations and other types of organizations may have to accumulate cash and prevent illiquidity in the future, which may also limit our growth.

Unlike a corporation, our partnership agreement requires us to make quarterly distributions to our common unitholders of all available cash, after taking into account reserves for commitments and contingencies, including growth and other capital expenditures and operating costs, debt service requirements and payments with respect to our preferred units. We are therefore more likely than those organizations to require issuances of additional debt and equity securities to finance our growth plans, meet unforeseen cash requirements and service our debt and other obligations.

In addition, to the extent we issue additional units in connection with any acquisitions or growth capital expenditures, the payment of distributions on those additional units may increase the risk that we will be unable to maintain our current per unit distribution level and the value of our common units and other limited partner interests may decrease in correlation with any reduction in our cash distributions per unit. Accordingly, if we experience a liquidity shortage in the future, we may not be able to issue more equity to recapitalize.

Unitholders have limited voting rights, and our partnership agreement restricts the voting rights of certain unitholders owning 20% or more of any class of our units.

Unlike holders of common stock in a corporation, unitholders have only limited voting rights on matters affecting our business and, therefore, limited ability to influence management's decisions regarding our business. Unitholders' voting rights are further restricted by a provision in our partnership agreement providing that units held by certain persons that own 20% or more of any class of units then outstanding cannot vote on any matter without the prior approval of our general partner.

We may issue additional equity securities, including equity securities that are senior to our common units, which would dilute our unitholders' existing ownership interests.

Our partnership agreement allows us to issue an unlimited number of additional equity securities without the approval of other unitholders as long as the newly issued equity securities are not senior to, or pari passu with, our preferred units. With the consent of a majority of the Series D Preferred Units, we may issue an unlimited number of units that are senior to our common units and pari passu with our preferred units. However, in certain circumstances, we may be required to obtain the approval of a majority of each class of our preferred units before we could issue equity securities that are pari passu with our preferred units.

Our issuance of additional units or other equity interests of equal or senior rank will have the following effects:

- our unitholders' proportionate ownership interest in us will decrease;
- the amount of cash available for distribution on each unit may decrease;
- the amount of cash available for redemption of, or payment of the liquidation preference on, each preferred unit may decrease;
- the ratio of taxable income to distributions may increase;
- · the relative voting strength of each previously outstanding unit may be diminished; and
- the market price of our common units and preferred units may decline.

Holders of our Series D Preferred Units generally have the same voting rights as holders of our common units and generally vote on an as-converted basis with the holders of our common units as a single class. Although holders of our other preferred units also have voting rights, such rights are limited to certain matters and require that such holders vote as a separate class with all other series of our equally ranked securities that may be issued and possess similar voting rights. As a result, the voting rights of holders of our preferred units may be significantly diluted, and the holders of such future securities of equal rank may be able to control or significantly influence the outcome of any vote with respect to which the holders of our preferred units are entitled to vote. Our partnership agreement contains limited protections for the holders of our preferred units (other than Series

D Preferred Units) in the event of a transaction, including a merger, sale, lease or conveyance of all or substantially all of our assets or business, which might adversely affect the holders of our preferred units.

Future issuances and sales of securities that rank equally with our preferred units, or the perception that such issuances and sales could occur, may cause prevailing market prices for our preferred units and our common units to decline and may adversely affect our ability to raise additional capital in the financial markets at times and prices favorable to us. Furthermore, the payment of distributions on any additional units may increase the risk that we will not be able to make distributions at our prior per unit distribution levels. To the extent new units are senior to our common units, their issuance will increase the uncertainty of the payment of distributions on our common units.

If we do not pay distributions on our preferred units in any distribution period, we would be unable to declare or pay distributions on our common units until all unpaid preferred unit distributions have been paid, and our common unitholders are not entitled to receive distributions for such prior period. Our preferred units rank senior to our common units with respect to distribution rights and rights upon liquidation. If we do not pay the required distributions on our preferred units, we will be unable to declare or pay distributions on our common units. Additionally, because distributions to our preferred unitholders are cumulative, we will have to pay all unpaid accumulated preferred distributions before we can declare or pay any distributions to our common unitholders. Also, because distributions to our common unitholders are not cumulative, if we do not pay distributions on our common units with respect to any quarter, our common unitholders will not be entitled to receive distributions covering any prior periods. In addition, if we do not pay the required distributions on our Series D Preferred Units for three consecutive distribution periods, the holders of our Series D Preferred Units have certain additional rights until such distributions are paid, including the right to convert the Series D Preferred Units into common units, the right to appoint one director to our board of directors and the right to approve certain indebtedness, acquisitions or asset sales. The preferences and privileges of our preferred units could adversely affect the market price for our common units, or could make it more difficult for us to sell our common units in the future.

Unitholders would not have limited liability if a court were to determine that unitholder action constitutes control of our business or that we have not complied with applicable statutes, which may have an impact on the cash we have available to make distributions.

Under Delaware law, if a court were to determine that actions of a unitholder constituted participation in the "control" of our business, unitholders would be held liable for our obligations to the same extent as a general partner.

Under Delaware law, the general partner generally has unlimited liability for the obligations of the partnership, such as its debts and environmental liabilities, except for those contractual obligations of the partnership that are expressly made without recourse to the general partner. In addition, Section 17-607 of the Delaware Revised Uniform Limited Partnership Act (the Delaware Act) provides that, under some circumstances, a limited partner may be liable to us for the amount of a distribution for a period of three years from the date of the distribution.

Under certain circumstances, unitholders may have liability to repay distributions wrongfully distributed to them.

Under Section 17-607 of the Delaware Act, we may not make a distribution to our unitholders if the distribution would cause our liabilities to exceed the fair value of our assets. Liabilities to partners on account of their partnership interests and liabilities that are nonrecourse to the partnership are not counted for purposes of determining whether a distribution is permitted. Delaware law provides that, for a period of three years from the date of an impermissible distribution, limited partners who received the distribution and who knew at the time of the distribution that it violated Delaware law will be liable to us for the repayment of the distribution amount. Likewise, upon the winding up of our partnership, in the event that (a) we do not distribute assets in the following order: (1) to creditors in satisfaction of our debts; (2) to partners and former partners in satisfaction of liabilities for distributions owed under our partnership agreement; (3) to partners for the return of their contributions; and finally (4) to the partners in the proportions in which the partners share in distributions and (b) a limited partner knows at the time that the distribution violated the Delaware Act, then such limited partner will be liable to repay the distribution for a period of three years from the impermissible distribution under Section 17-804 of the Delaware Act.

A purchaser of our common or preferred units becomes a limited partner and is liable for the obligations of the transferring limited partner to make contributions to us that are known to such purchaser of common or preferred units at the time it became a limited partner and, for unknown obligations, if the liabilities could be determined from our partnership agreement.

The NYSE does not require a publicly traded limited partnership like us to comply with certain of its corporate governance requirements. We currently list our common units on the NYSE under the symbol "NS" and certain of our preferred units on the NYSE under the symbols "NSprA," "NSprB" and "NSprC," respectively. Although our general partner has maintained a majority of independent directors on its board and all members of its board's audit committee, compensation committee and nominating/

governance & conflicts committee are independent directors, because we are a publicly traded limited partnership, the NYSE does not require us to have a majority of independent directors on our general partner's board of directors or to have a compensation committee or a nominating committee consisting of independent directors. Additionally, any future issuance of additional common or preferred units or other securities, including to affiliates, will not be subject to the NYSE's shareholder approval rules that apply to a corporation. Accordingly, the NYSE does not mandate the same protections for our unitholders as are required for certain corporations that are subject to all of the NYSE corporate governance requirements.

TAX RISKS TO OUR UNITHOLDERS

If we were treated as a corporation for federal or state income tax purposes or we were otherwise subject to a material amount of entity-level taxation, then our cash available for distribution to unitholders would be substantially reduced.

The anticipated after-tax benefit of an investment in our units depends largely on our being treated as a partnership for federal income tax purposes. Despite the fact that we are a limited partnership under Delaware law, we will be treated as a corporation for federal income tax purposes unless we satisfy a "qualifying income" requirement. Based upon our current operations, we believe we satisfy the qualifying income requirement.

If we were treated as a corporation, we would pay federal income tax at the corporate tax rate and would likely pay state and local income tax at varying rates. Distributions to unitholders would generally be taxed again as corporate distributions, and no income, gains, losses, deductions or credits would flow through to unitholders. Because a tax would be imposed upon us as a corporation, our distributable cash flow would be substantially reduced. Additionally, at the state level, several states are evaluating ways to subject partnerships to entity-level taxation through the imposition of state income, franchise and other forms of taxation. If we were treated as a corporation for federal income tax purposes or otherwise subjected to a material amount of entity-level taxation, then our cash available for distribution to unitholders would be substantially reduced and there would be a material reduction in the after-tax return to our unitholders, likely causing a substantial reduction in the value of our units.

The tax treatment of publicly traded partnerships or an investment in our units could be subject to potential legislative, judicial or administrative changes or differing interpretations, possibly applied on a retroactive basis.

The present U.S. federal income tax treatment of publicly traded partnerships, including us, or an investment in our units may be modified by administrative, legislative or judicial changes or differing interpretations at any time. From time to time, members of Congress propose and consider such substantive changes to the existing federal income tax laws that affect publicly traded partnerships.

The Tax Cuts and Jobs Act enacted December 22, 2017 made significant changes to the U.S. federal income tax rules applicable to both individuals and entities, including changes to the tax rate on a unitholder's allocable share of income from the publicly traded partnership. Unitholders should consult their tax advisor regarding the impact of the Tax Cuts and Jobs Act (and any other applicable tax laws, rules and regulations) on us or an investment in our units.

Any changes to the federal income tax laws and interpretations thereof (including administrative guidance relating to the Tax Cuts and Jobs Act) may be applied retroactively and could make it more difficult or impossible for us to meet the exception for certain publicly traded partnerships to be treated as partnerships for federal income tax purposes or otherwise adversely affect our business, financial condition or results of operations. We are unable to predict whether any additional changes or other proposals will ultimately be enacted. Any such changes could negatively impact the value of an investment in our units.

A successful IRS contest of the federal income tax positions we take may adversely impact the market for our units, and the costs of any contest will reduce cash available for distribution to our unitholders.

The IRS may adopt positions that differ from the positions we take, even positions taken with the advice of counsel. Any contest with the IRS may affect adversely the taxable income reported to our unitholders and the income taxes they are required to pay. As a result, any such contest with the IRS may materially and adversely impact the market for our units and the prices at which they trade. In addition, the costs of any contest between us and the IRS will be borne indirectly by our unitholders and our general partner because such costs will reduce our cash available for distribution.

If the IRS makes audit adjustments to our income tax returns for tax years beginning after December 31, 2017, it (and some states) may assess and collect any taxes, penalties and interest directly from us. If we bear such payment, our cash available for distribution to our unitholders might be substantially reduced.

For tax years beginning after December 31, 2017, if the IRS makes audit adjustments to our income tax returns, it (and some states) may assess and collect any taxes, penalties and interest resulting from such audit adjustment directly from us. To the extent possible under applicable rules, our general partner may pay such amounts directly to the IRS or, if we are eligible, elect

to issue a revised Schedule K-1 to each unitholder with respect to an audited and adjusted return. No assurances can be made that such election will be practical, permissible or effective in all circumstances. As a result, our current unitholders may bear some or all of the tax liability resulting from such audit adjustment, even if such unitholders did not own common units in us during the tax year under audit. If, as a result of any such audit adjustment, we make payments of taxes, penalties and interest, our cash available for distribution to our unitholders could be substantially reduced.

Unitholders will be required to pay taxes on their share of our taxable income even if they do not receive cash distributions from us.

Unitholders will be required to pay federal income taxes and, in some cases, state and local income taxes on their respective share of our taxable income, whether or not the unitholders receive cash distributions from us. Unitholders may not receive cash distributions from us equal to their respective share of our taxable income or even equal to the actual tax liability that results from their share of our taxable income.

Tax gain or loss on the disposition of our units could be different than expected.

A unitholder who sells units will recognize a gain or loss equal to the difference between the amount realized and the unitholder's tax basis in those units. Prior distributions to the unitholder in excess of the total net taxable income with respect to a unit will reduce the unitholder's tax basis in that unit. As a result, the selling unitholder can recognize gain if such unit is sold at a price greater than the unitholder's tax basis in that unit, even if the price the unitholder receives is less than the unit's original cost. A substantial portion of the amount realized, even if there is a net taxable loss realized on the sale, may be ordinary income to the selling unitholder.

Unitholders may be subject to limitations on their ability to deduct interest expense incurred by us.

The deduction for "business interest" paid or accrued on indebtedness properly allocable to our trade or business is limited to the sum of our business interest income plus 30% of our "adjusted taxable income." Proposed regulations would institute a broad definition of interest, treating certain amounts, including amounts paid as guaranteed payments for the use of capital with respect to our preferred units, as business interest subject to the limitation. For the purposes of this limitation, our adjusted taxable income is computed without regard to any business interest expense or business interest income, and in the case of taxable years beginning before January 1, 2022, any deduction allowable for depreciation, amortization, or depletion. Any interest disallowed at the partnership level may be carried forward and deducted in future years by a unitholder, subject to certain restrictions.

Tax-exempt entities face unique tax issues from owning our units that may result in adverse tax consequences to them.

Investment in our units by tax-exempt entities, such as employee benefit plans and individual retirement accounts (IRAs) raises issues unique to them. For example, virtually all of our income allocated to organizations that are exempt from U.S. federal income tax, including IRAs and other retirement plans, will be unrelated business taxable income and will be taxable to them. Further, with respect to taxable years beginning after December 31, 2017, a tax-exempt entity with more than one unrelated trade or business (including by attribution from investment in a partnership such as ours) is required to compute the unrelated business taxable income of such tax-exempt entity separately with respect to each such trade or business (including for purposes of determining any net operating loss deduction). As a result, for years beginning after December 31, 2017, it may not be possible for tax-exempt entities to utilize losses from an investment in us to offset unrelated business taxable income from another unrelated trade or business and vice versa. Tax-exempt entities should consult a tax advisor before investing in our units.

Non-U.S. unitholders will be subject to U.S. taxes and withholding with respect to their income and gain from owning our units.

Non-U.S. unitholders are subject to U.S. federal income tax on income effectively connected with a U.S. trade or business (effectively connected income). A unitholder's share of our income, gain, loss and deduction, and any gain from the sale or disposition of our units will generally be considered to be "effectively connected" with a U.S. trade or business and subject to U.S. federal income tax. Additionally, distributions to a non-U.S. unitholder will be subject to withholding at the highest applicable effective tax rate.

The Tax Cuts and Jobs Act imposes a withholding obligation of 10% of the amount realized upon a non-U.S. unitholder's sale or disposition of an interest, such as our units, in a partnership that is engaged in a U.S. trade or business. The IRS has temporarily suspended the application of the withholding requirements on sales of publicly traded interests, including our units, until 60 days after proposed regulations are finalized. Non-U.S. unitholders should consult a tax advisor before investing in our units.

We will treat each purchaser of our common units as having the same tax benefits without regard to the units purchased. The IRS may challenge this treatment, which could adversely affect the value of our common units.

Because we cannot match transferors and transferees of our common units, we have adopted depreciation and amortization positions that may not conform with all aspects of existing Treasury regulations. A successful IRS challenge to those positions could adversely affect the amount of tax benefits available to unitholders. It also could affect the timing of these tax benefits or the amount of gain from a unitholder's sale of common units and could have a negative impact on the value of our common units or result in audit adjustments to the unitholder's tax returns.

Unitholders will likely be subject to state and local taxes and return filing requirements as a result of investing in our units.

In addition to federal income taxes, unitholders will likely be subject to other taxes, such as state and local income taxes, unincorporated business taxes and estate, inheritance or intangible taxes that are imposed by the various jurisdictions in which we do business or own property. Unitholders will likely be required to file state and local income tax returns and pay state and local income taxes in some or all of these various jurisdictions. Further, unitholders may be subject to penalties for failure to comply with those requirements. We may own property or conduct business in other states or foreign countries in the future. It is each unitholder's responsibility to file all federal, state and local tax returns.

We prorate our items of income, gain, loss and deduction between transferors and transferees of our common units each month based upon the ownership of our common units on the first day of each month, instead of on the basis of the date a particular common unit is transferred. The IRS may challenge this treatment, which could change the allocation of items of income, gain, loss and deduction among our common unitholders.

We prorate our items of income, gain, loss and deduction between transferors and transferees of our common units each month based upon the ownership of our common units on the first day of each month, instead of on the basis of the date a particular common unit is transferred. Treasury regulations allow a similar monthly simplifying convention, but such regulations do not specifically authorize all aspects of our proration method. If the IRS were to challenge our proration method, we may be required to change the allocation of items of income, gain, loss and deduction among our common unitholders.

We have adopted certain valuation methodologies in determining a common unitholder's allocations of income, gain, loss and deduction. The IRS may challenge these methods or the resulting allocations and such a challenge could adversely affect the value of our common units.

In determining the items of income, gain, loss and deduction allocable to our common unitholders, we must routinely determine the fair market value of our respective assets. Although we may from time to time consult with professional appraisers regarding valuation matters, we make fair market value estimates using a methodology based on the market value of our common units as a means to measure the fair market value of our respective assets. The IRS may challenge these valuation methods and the resulting allocations of income, gain, loss and deduction.

A successful IRS challenge to these methods or allocations could adversely affect the amount, character and timing of taxable income or loss being allocated to our common unitholders. It also could affect the amount of gain from our unitholders' sale of common units and could have a negative impact on the value of the common units or result in audit adjustments to our common unitholders' tax returns without the benefit of additional deductions.

A unitholder whose units are the subject of a securities loan (e.g., a loan to a "short seller") may be considered as having disposed of those units. If so, the unitholder would no longer be treated for tax purposes as a partner with respect to those units during the period of the loan and may recognize gain or loss from the disposition.

Because there are no specific rules governing the federal income tax consequences of loaning a partnership interest, a unitholder whose units are the subject of a securities loan may be considered as having disposed of the loaned units. In that case, the unitholder may no longer be treated for tax purposes as a partner with respect to those units during the period of the loan and the unitholder may recognize gain or loss from such disposition. Moreover, during the period of the loan, any of our income, gain, loss or deduction with respect to those units may not be reportable by the unitholder and any cash distributions received by the unitholder as to those units could be fully taxable as ordinary income. Unitholders desiring to assure their status as partners and avoid the risk of gain recognition from a loan to a short seller are urged to consult a tax advisor to discuss whether it is advisable to modify any applicable brokerage account agreements to prohibit their brokers from borrowing their units.

Treatment of distributions on our preferred units as guaranteed payments for the use of capital creates a different tax treatment for the holders of preferred units than the holders of our common units and such distributions are not eligible for the 20% deduction for qualified publicly traded partnership income.

The tax treatment of distributions on our preferred units is uncertain. We will treat the holders of preferred units as partners for tax purposes and will treat distributions on the preferred units as guaranteed payments for the use of capital that will generally be taxable to the holders of preferred units as ordinary income. Although a holder of preferred units could recognize taxable income from the accrual of such a guaranteed payment even in the absence of a contemporaneous distribution, we anticipate accruing and making the guaranteed payment distributions quarterly. Otherwise, the holders of preferred units are generally not

anticipated to share in our items of income, gain, loss or deduction, nor will we allocate any share of our nonrecourse liabilities to the holders of preferred units. If the preferred units were treated as indebtedness for tax purposes, rather than as guaranteed payments for the use of capital, distributions likely would be treated as payments of interest by us to the holders of preferred units.

The Tax Cuts and Jobs Act allows individuals and other non-corporate owners of interests in a publicly traded partnership to take a deduction equal to 20% of their allocable share of the partnership's income that is "qualified publicly traded partnership income." However, income attributable to a guaranteed payment for the use of capital is not eligible for the 20% deduction. As a result, distributions on the preferred units will be taxable to holders of preferred units as ordinary income that is not eligible for the 20% deduction for qualified publicly traded partnership income.

Investment in the preferred units by tax-exempt investors, such as employee benefit plans and IRAs, and non-U.S. persons raises issues unique to them. A non-U.S. holder's income from guaranteed payments and any gain from the sale or disposition of our units may be considered to be effectively connected income and subject to U.S. federal income tax. Distributions to non-U.S. holders of preferred units will be subject to withholding taxes. If the amount of withholding exceeds the amount of U.S. federal income tax actually due, non-U.S. holders of preferred units may be required to file U.S. federal income tax returns in order to seek a refund of such excess. The Tax Cuts and Jobs Act imposes a withholding obligation of 10% of the amount realized upon a non-U.S. unitholder's sale or disposition of preferred units, to the extent gain on the sale or disposition is effectively connected income. The IRS has temporarily suspended the application of the withholding requirements on sales of publicly traded interests, including our preferred units, until 60 days after proposed regulations are finalized. Additionally, the treatment of guaranteed payments for the use of capital to tax exempt investors is not certain and such payments may be treated as unrelated business taxable income for federal income tax purposes.

All holders of our preferred units are urged to consult a tax advisor with respect to the consequences of owning and selling our preferred units.

PROPERTIES

Our principal properties are described above under the caption "Segments," and that information is incorporated herein by reference. We believe that we have satisfactory title to all of our properties. Although title to these properties is subject to encumbrances in some cases, such as customary interests generally retained in connection with the acquisition of real property, liens for current taxes and other burdens and easements, and restrictions or other encumbrances, including those related to environmental liabilities associated with historical operations, to which the underlying properties were subject at the time of acquisition by us or our predecessors, we believe that none of these burdens will materially detract from the value of these properties or from our interest in these properties or will materially interfere with their use in the operation of our business. In addition, we believe that we have obtained sufficient right-of-way grants and permits from public authorities and private parties for us to operate our business in all material respects as described in this report. We perform scheduled maintenance on all of our pipelines, terminals, crude oil tanks and related equipment and make repairs and replacements when necessary or appropriate. We believe that our pipelines, terminals, crude oil tanks and related equipment have been constructed and are maintained in all material respects in accordance with applicable federal, state and local laws and the regulations and standards prescribed by the American Petroleum Institute, the DOT and accepted industry practice.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 3. LEGAL PROCEEDINGS

We are named as a defendant in litigation and are a party to other claims and legal proceedings relating to our normal business operations, including regulatory and environmental matters. Due to the inherent uncertainty of litigation, there can be no assurance that the resolution of any particular claim or proceeding would not have a material adverse effect on our results of operations, financial position or liquidity.

We are insured against various business risks to the extent we believe is prudent; however, we cannot assure you that the nature and amount of such insurance will be adequate, in every case, to protect us against liabilities arising from future legal proceedings as a result of our ordinary business activity.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON UNITS, RELATED UNITHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common Unit Distributions

Our common units are listed and traded on the New York Stock Exchange under the symbol "NS." At the close of business on February 10, 2020, we had 407 holders of record of our common units. The following table presents the amount, record date and payment date of the quarterly cash distributions on our common units with respect to 2019 and 2018:

	Cash Distributions					
	ount Per mon Unit	Record Date	Payment Date			
<u>Year 2019</u>						
4th Quarter	\$ 0.60	February 10, 2020	February 14, 2020			
3rd Quarter	\$ 0.60	November 8, 2019	November 14, 2019			
2nd Quarter	\$ 0.60	August 7, 2019	August 13, 2019			
1st Quarter	\$ 0.60	May 8, 2019	May 14, 2019			
<u>Year 2018</u>						
4th Quarter	\$ 0.60	February 8, 2019	February 13, 2019			
3rd Quarter	\$ 0.60	November 8, 2018	November 14, 2018			
2nd Quarter	\$ 0.60	August 7, 2018	August 13, 2018			
1st Quarter	\$ 0.60	May 8, 2018	May 14, 2018			

Our partnership agreement requires that we distribute all "Available Cash" to our common limited partners each quarter. This term is defined in the partnership agreement generally as cash receipts less cash disbursements, including distributions to our preferred units, and cash reserves established by the general partner, in its sole discretion. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for further information regarding our distributions.

Preferred Unit Distributions

The following table provides the terms related to distributions for our Series A, Series B and Series C Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units:

Units	Fixed Distribution Rate Per Annum (as a Percentage of the \$25.00 Liquidation Preference Per Unit)	Fixed Distribution Rate Per Unit Per Annum			ed Distribution Per Annum	Optional Redemption Date/Date at Which Distribution Rate Becomes Floating	Floating Annual Rate (as a Percentage of the \$25.00 Liquidation Preference Per Unit)
				(Thousands of Dollars)		
Series A Preferred Units	8.50%	\$	2.125	\$	19,252	December 15, 2021	Three-month LIBOR plus 6.766%
Series B Preferred Units	7.625%	\$	1.90625	\$	29,357	June 15, 2022	Three-month LIBOR plus 5.643%
Series C Preferred Units	9.00%	\$	2.25	\$	15,525	December 15, 2022	Three-month LIBOR plus 6.88%

The distribution rate on our Series D Cumulative Convertible Preferred Units (Series D Preferred Units) is (i) 9.75% per annum (\$57.6 million per annum) for the first two years (beginning with the September 17, 2018 distribution); (ii) 10.75% per annum (\$63.4 million per annum) for years three through five; and (iii) the greater of 13.75% per annum (\$81.1 million per annum) or the distribution per common unit thereafter.

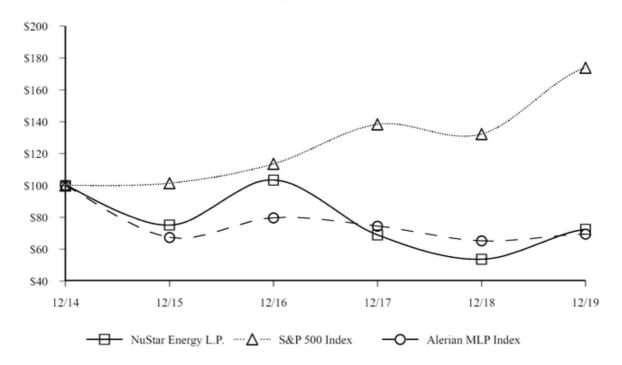
Distributions on the preferred units are payable out of any legally available funds, accrue and are cumulative from the original issuance dates, and are payable on the 15th day (or the next business day) of each of March, June, September and December of each year to holders of record on the first business day of each payment month. The preferred units rank equal to each other and senior to all of our other classes of equity securities with respect to distribution rights and rights upon liquidation. Please see Notes 19 and 20 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information on distributions to our preferred unitholders.

Performance Graph

The following Performance Graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference into any of NuStar Energy's filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, as amended, respectively. The stock or unit price performance included in this graph is not necessarily indicative of future stock or unit price performance.

The following graph compares the cumulative five-year total return provided to holders of NuStar Energy's common units relative to the cumulative total returns of the S&P 500 index and the Alerian MLP index. An investment of \$100 (with reinvestment of all dividends) is assumed to have been made in our common units and in each of the indexes on December 31, 2014, and its relative performance is tracked through December 31, 2019.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN* Among NuStar Energy L.P., the S&P 500 Index and Alerian MLP Index



*\$100 invested on 12/31/14 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

	12/14	12/15	12/16	12/17	12/18	12/19
NuStar Energy L.P.	100.00	75.13	103.4	68.99	53.72	72.54
S&P 500 Index	100.00	101.38	113.51	138.29	132.23	173.86
Alerian MLP Index	100.00	67.41	79.75	74.55	65.29	69.57

Sales of Unregistered Securities

During the fourth quarter of 2018 and the fourth quarter of 2019, NuStar Energy issued an aggregate of 18,234 common units and 14,896 common units, respectively, in reliance upon an exemption from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(a)(2) thereof, upon the vesting of outstanding awards under a long-term incentive plan.

During the fourth quarter of 2019, NuStar Energy issued 527,426 common units at a price of \$28.44 per unit to William E. Greehey, Chairman of the Board of Directors of NuStar GP, LLC, in reliance upon an exemption from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(a)(2) thereof. We used the proceeds of \$15.0 million from the sale of these units for general partnership purposes.

ITEM 6. SELECTED FINANCIAL DATA

On July 29, 2019, we sold our St. Eustatius terminal and bunkering operations and, on November 30, 2018, we sold our European operations. In the second quarter of 2019, we determined the St. Eustatius terminal and bunkering operations and the European operations met the requirements to be reported as discontinued operations and, as a result, we reclassified certain balances to assets and liabilities held for sale and certain revenues and expenses to discontinued operations for all applicable periods presented. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further information.

The following table contains selected financial data derived from our audited financial statements and should be read in conjunction with Item 8. "Financial Statements and Supplementary Data."

		Y	ear E	nded December	31,		
	 2019	2018		2017		2016	2015
		(Thousand	ls of E	Oollars, Except Pe	r Unit	Data)	
Statement of Income Data:							
Revenues	\$ 1,498,021	\$ 1,520,262	\$	1,444,772	\$	1,395,846	\$ 1,644,287
Operating income	\$ 390,916	\$ 335,728	\$	290,510	\$	319,697	\$ 348,422
Income from continuing operations (a)	\$ 206,834	\$ 146,375	\$	110,895	\$	111,213	\$ 268,951
Income (loss) from continuing operations per common unit (a)	\$ 0.60	\$ (3.34)	\$	0.23	\$	0.78	\$ 2.83
Cash distributions per unit applicable to common limited partners (b)	\$ 2.40	\$ 2.40	\$	4.38	\$	4.38	\$ 4.38
			1	December 31,			
	 2019	2018		2017 (с)		2016	2015
			(Tho	usands of Dollars	i)		
Balance Sheet Data:							
Property, plant and equipment, net	\$ 4,118,979	\$ 3,774,802	\$	3,603,095	\$	3,159,918	\$ 3,122,647
Total assets (d)	\$ 6,185,992	\$ 6,349,140	\$	6,535,233	\$	5,030,545	\$ 5,125,525
Current portion of long-term debt	\$ 452,637	\$ _	\$	349,990	\$	_	\$ _
Long-term debt and finance leases, less current portion	\$ 2,934,918	\$ 3,111,996	\$	3,263,069	\$	3,014,364	\$ 3,055,612
Series D Cumulative Convertible Preferred Units (e)	\$ 581,935	\$ 563,992	\$	_	\$	_	\$ _
Total partners' equity (d)	\$ 1,776,210	\$ 2,257,731	\$	2,480,089	\$	1,611,617	\$ 1,609,844

- (a) Includes a \$58.7 million non-cash impairment charge on the term loan to Axeon Specialty Products, LLC in 2016 and a \$56.3 million non-cash gain associated with the Linden terminal acquisition in 2015. (Loss) income from continuing operations per common unit also includes the impact of a \$377.1 million loss as a result of the July 2018 merger with our general partner. Please refer to Notes 4 and 21 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.
- (b) The board of directors of NuStar GP, LLC reset our quarterly distribution per common unit to \$0.60 (\$2.40 on an annualized basis), starting with the distribution for the first quarter of 2018.
- (c) The significant increases in balance sheet data are primarily due to our acquisition of Navigator Energy Services, LLC for approximately \$1.5 billion in May 2017.
- (d) In 2019, we incurred impairment charges totaling \$336.8 million related to the St. Eustatius operations. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.
- (e) In 2018, we issued 23,246,650 Series D Cumulative Convertible Preferred Units, which are presented in the mezzanine section of the consolidated balance sheets. Please refer to Note 19 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following review of our results of operations and financial condition should be read in conjunction with "Cautionary Statement Regarding Forward-Looking Information," Items 1., 1A. and 2. "Business, Risk Factors and Properties" and Item 8. "Financial Statements and Supplementary Data" included in this report.

NuStar Energy L.P. (NYSE: NS) is engaged in the transportation of petroleum products and anhydrous ammonia, and the terminalling, storage and marketing of petroleum products. Unless otherwise indicated, the terms "NuStar Energy," "NS," "the Partnership," "we," "our" and "us" are used in this report to refer to NuStar Energy L.P., to one or more of our consolidated subsidiaries or to all of them taken as a whole. Our Management's Discussion and Analysis of Financial Condition and Results of Operations is presented below in six sections:

- Overview
- Results of Operations
- · Trends and Outlook
- · Liquidity and Capital Resources
- Critical Accounting Policies
- · New Accounting Pronouncements

OVERVIEW

Recent Developments

Completed Projects. In the third quarter of 2019, we completed construction of a 30-inch crude oil pipeline from Taft, Texas to our Corpus Christi North Beach terminal to transport volumes from the Permian Basin to Corpus Christi, Texas for export. We also completed an expansion project on our Valley Pipeline System, which originates in Corpus Christi and runs south to the Rio Grande Valley, and reactivated our refined products pipeline in South Texas to transport diesel to our Nuevo Laredo terminal in Mexico.

Our legacy pipelines that transport crude oil from the Eagle Ford and Permian Basin regions to Corpus Christi, together with our Corpus Christi North Beach terminal and new 30-inch pipeline, comprise the Corpus Christi Crude System.

Sale of St. Eustatius Operations. On July 29, 2019, we sold our St. Eustatius terminal and bunkering operations (the St. Eustatius Operations) for net proceeds of approximately \$230.0 million (the St. Eustatius Disposition). The St. Eustatius Disposition included a 14.3 million barrel storage and terminalling facility and related assets on the island of St. Eustatius in the Caribbean Netherlands. We previously reported the terminal operations in our storage segment and the bunkering operations in our fuels marketing segment.

The consolidated statements of (loss) income reflect the St. Eustatius Operations and the European Operations, which were sold on November 30, 2018 and defined below, as discontinued operations for all applicable periods presented. In 2019, we recorded long-lived asset and goodwill impairment charges totaling \$336.8 million related to the St. Eustatius Operations. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the sale and impairment charges.

Issuance of Debt. On May 22, 2019, NuStar Logistics L.P. (NuStar Logistics) issued \$500.0 million of 6.0% senior notes due June 1, 2026. We received net proceeds of \$491.6 million, which we used to repay outstanding borrowings under our revolving credit agreement. Please refer to Note 14 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further information.

Selby Terminal Fire. On October 15, 2019, our terminal facility in Selby, California experienced a fire that destroyed two storage tanks and temporarily shut down the terminal. The property damage was isolated, and in the fourth quarter, we incurred losses of \$5.4 million, which represent the aggregate amount of our deductibles under various insurance policies. We believe we have adequate insurance to offset additional costs in excess of the insurance deductibles.

Other Events

Sale of European Operations. On November 30, 2018, we sold our European operations, which consisted of six liquids storage terminals in the United Kingdom and one facility in Amsterdam and related assets (the European Operations), for approximately \$270.0 million (the European Disposition). We previously reported the European Operations in our storage segment. We recognized a non-cash loss of \$43.4 million related to the sale in "(Loss) income from discontinued operations, net of tax" on our consolidated statement of income for the year ended December 31, 2018. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the sale.

Merger. On July 20, 2018, we completed the merger of NuStar GP Holdings, LLC (Holdings) with a subsidiary of NuStar Energy (the Merger). Pursuant to the Merger agreement and at the effective time of the Merger, our partnership agreement was amended and restated to, among other things, (i) cancel the incentive distribution rights held by our general partner, (ii) convert the 2% general partner interest in NuStar Energy held by our general partner into a non-economic management interest and (iii) provide the holders of our common units with voting rights in the election of the members of the board of directors of NuStar GP, LLC, beginning at the annual meeting in 2019. We issued approximately 13.4 million incremental NuStar Energy common units as a result of the Merger. Please refer to Note 4 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the Merger.

Issuances of Units. In June and July of 2018, we issued 23,246,650 Series D Cumulative Convertible Preferred Units (Series D Preferred Units) at a price of \$25.38 per unit in a private placement for net proceeds of \$555.8 million. Please refer to Note 19 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

Council Bluffs Acquisition. On April 16, 2018, we acquired CHS Inc.'s Council Bluffs pipeline system, comprised of a 227-mile pipeline and 18 storage tanks for approximately \$37.5 million (the Council Bluffs Acquisition). The assets acquired and the results of operations are included in our pipeline segment, within the East Pipeline, from the date of acquisition. We accounted for this acquisition as an asset purchase.

Hurricane Activity. In the third quarter of 2017, several of our facilities were affected by the hurricanes in the Caribbean and Gulf of Mexico, including the St. Eustatius terminal, which experienced the most damage and was temporarily shut down. In 2017, we received insurance proceeds of \$12.5 million for damages at the St. Eustatius terminal, of which \$3.8 million was for business interruption. In 2018, we received \$87.5 million of insurance proceeds in settlement of our property damage claim for the St. Eustatius terminal, of which \$9.1 million related to business interruption. Proceeds from business interruption insurance are included in "Cash flows from operating activities" in the consolidated statements of cash flows. We recorded a \$78.8 million gain in the consolidated statements of income in 2018 for the amount by which the insurance proceeds exceeded our expenses incurred during the period. The insurance proceeds related to business interruption, the gain in 2018 and the loss in 2017 are all included in "(Loss) income from discontinued operations, net of tax" in the consolidated statements of (loss) income.

Navigator Acquisition. On May 4, 2017, we acquired Navigator Energy Services, LLC for approximately \$1.5 billion (the Navigator Acquisition). We collectively refer to the acquired assets, together with the assets we have constructed through various expansion projects since the date of the Navigator Acquisition, as our Permian Crude System. The assets acquired are included in our pipeline segment within the Central West System, commencing on May 4, 2017. Please refer to Note 6 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

Axeon Term Loan. On February 22, 2017, we settled and terminated the \$190.0 million term loan to Axeon Specialty Products, LLC (the Axeon Term Loan), pursuant to which we also provided credit support, such as guarantees, letters of credit and cash collateral, as applicable, of up to \$125.0 million to Axeon Specialty Products, LLC (Axeon). We received \$110.0 million in settlement of the Axeon Term Loan, and our obligation to provide ongoing credit support to Axeon ceased.

Operations

We conduct our operations through our subsidiaries, primarily NuStar Logistics and NuStar Pipeline Operating Partnership L.P. (NuPOP). Our operations are divided into three reportable business segments: pipeline, storage and fuels marketing. For a more detailed description of and more detailed financial information about our segments, please refer to "Segments" under Item 1. "Business" and Note 26 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

Pipeline. We own 3,205 miles of refined product pipelines and 2,155 miles of crude oil pipelines, as well as approximately 5.2 million barrels of storage capacity, which comprise our Central West System. In addition, we own 2,600 miles of refined

product pipelines, consisting of the East and North Pipelines, and a 2,000-mile ammonia pipeline (the Ammonia Pipeline), which comprise our Central East System. The East and North Pipelines have storage capacity of approximately 7.4 million barrels.

Storage. We own terminals and storage facilities in the United States, Canada and Mexico, with approximately 61.3 million barrels of storage capacity.

Fuels Marketing. Within our fuels marketing segment, which primarily includes our bunkering operations in the Gulf Coast and blending operations associated with our Central East System, we purchase petroleum products for resale. Prior to the third quarter of 2017, our fuels marketing operations involved the purchase of crude oil, fuel oil, bunker fuel, fuel oil blending components and other refined products for resale. We ceased marketing crude oil in the second quarter of 2017 and exited our heavy fuels trading operations in the third quarter of 2017. These actions were in line with our goal of reducing our exposure to commodity margins, and instead focusing on our core, fee-based pipeline and storage segments.

The results of operations for the fuels marketing segment depend largely on the margin between our costs and the sales prices of the products we market. Therefore, the results of operations for this segment are more sensitive to changes in commodity prices compared to the operations of the pipeline and storage segments. We enter into derivative contracts to attempt to mitigate the effects of commodity price fluctuations. The financial impacts of the derivative financial instruments associated with commodity price risk were not material for any period presented.

Factors That Affect Results of Operations

The following factors affect the results of our operations:

- · company-specific factors, such as facility integrity issues, maintenance requirements and outages that impact the throughput rates of our assets;
- · seasonal factors that affect the demand for products transported by and/or stored in our assets and the demand for products we sell;
- · industry factors, such as changes in the prices of petroleum products that affect demand and the operations of our competitors;
- · economic factors, such as commodity price volatility, that impact our fuels marketing segment; and
- factors that impact the operations served by our pipeline and storage assets, such as utilization rates and maintenance turnaround schedules of our refining company customers and drilling activity by our crude oil production customers.

Increases or decreases in the price of crude oil affect sectors across the energy industry, including our customers in crude oil production, refining and trading, in different ways at different points in any given price cycle. For example, during periods of sustained low prices, producers tend to reduce their capital spending and drilling activity and narrow their focus to assets in the most cost-advantaged regions. Refiners, on the other hand, tend to benefit from lower crude oil prices, to the extent they are able to take advantage of lower feedstock prices, especially those positioned for healthy regional demand for their refined products; however, as refined product inventories increase, refiners typically reduce their production rate, which may reduce the degree to which they are able to benefit from low crude prices. Crude oil traders focus less on the current market commodity price than on whether that price is higher or lower than expected future market prices: if the future price for a product is believed to be higher than the current market price, or a "contango market," traders are more likely to purchase and store products to sell in the future at the higher price. On the other hand, when the current price of crude oil nears or exceeds the expected future market price, or "backwardation," as is currently the case for certain markets that we serve, traders are no longer incentivized to purchase and store product for future sale.

RESULTS OF OPERATIONS

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Financial Highlights

(Thousands of Dollars, Except Per Unit Data)

	<u> </u>	Year Ended	Decen	ıber 31,	
		2019	2018		Change
Statement of Income Data:					
Revenues:					
Service revenues	\$	1,148,167	\$	1,045,130	\$ 103,037
Product sales		349,854		475,132	(125,278)
Total revenues		1,498,021		1,520,262	(22,241)
Costs and expenses:					
Costs associated with service revenues		669,246		626,250	42,996
Cost of product sales		321,644		449,613	(127,969)
General and administrative expenses		107,855		100,067	7,788
Other depreciation and amortization expense		8,360		8,604	(244)
Total costs and expenses	_	1,107,105		1,184,534	(77,429)
Operating income		390,916		335,728	55,188
Interest expense, net		(183,070)		(184,398)	1,328
Other income, net		3,742		5,202	(1,460)
Income from continuing operations before income tax expense		211,588		156,532	55,056
Income tax expense		4,754		10,157	(5,403)
Income from continuing operations		206,834		146,375	60,459
(Loss) income from discontinued operations, net of tax		(312,527)		59,419	(371,946)
Net (loss) income	\$	(105,693)	\$	205,794	\$ (311,487)
Basic and diluted net income (loss) per common unit:					
Continuing operations	\$	0.60	\$	(3.34)	\$ 3.94
Discontinued operations		(2.90)		0.57	(3.47)
Total	\$	(2.30)	\$	(2.77)	\$ 0.47

Annual Overview

Income from continuing operations increased \$60.5 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, mainly due to higher operating income from the pipeline segment.

For the year ended December 31, 2019, loss from discontinued operations, net of tax, includes impairment charges totaling \$336.8 million related to the St. Eustatius Operations. For the year ended December 31, 2018, income from discontinued operations, net of tax, includes a gain of \$78.8 million resulting from insurance proceeds received for hurricane damages incurred at the St. Eustatius terminal, partially offset by a loss of \$43.4 million related to the sale of our European Operations. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

Despite positive income from continuing operations for the year ended December 31, 2018, we incurred a net loss from continuing operations per common unit because we accounted for the Merger as an equity transaction similar to a redemption or induced conversion of preferred stock, which resulted in a loss of \$377.1 million that was subtracted from net income attributable to common unitholders in the calculation of net loss per common unit for the year ended December 31, 2018. Please refer to Notes 4 and 21 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

Segment Operating Highlights (Thousands of Dollars, Except Barrel/Day Information)

Refined products and ammonia pipelines throughput (barrels/day) 557,532 557,044 7.7 Total throughput (barrels/day) 1,756,345 1,433,699 32,22 Throughput and other revenues \$701,803 6,611,065 \$90,000 Operating expenses 166,991 153,943 133,000 Segment operating income 332,408 \$27,695 \$50,000 Storage: Throughput (barrels/day) 464,571 341,995 \$33,195 \$31,195 <td< th=""><th></th><th colspan="4">Year Ended December 31,</th><th></th><th></th></td<>		Year Ended December 31,					
Crude oil pipelines throughput (barrels/day) 1,198,813 876,655 322, 322, 323, 323, 323, 323, 323, 323,			2019		2018	•	Change
Relined products and ammonia pipelines throughput (barrels/day) 557,532 557,044 2.55 Total throughput (barrels/day) 1,756,345 1,433,699 32,050 59,00 Chroughput and other revenues \$70,103 611,055 90,00 Operating expenses 202,359 184,427 17.55 Segment operating income \$332,408 \$153,943 133,95 Segment operating income \$132,403 \$31,95 \$31,95 Segment operating income \$114,243 \$41,95 \$31,95 Throughput terminal revenues \$339,783 360,431 \$20,00 Throughput terminal revenues \$339,783 360,431 \$20,00 Total revenues \$339,783 360,431 \$20,00 Total revenues \$97,573 39,345 \$7,00 Operating expenses \$97,573 39,345 \$1,0 Segment operating income \$143,00 \$15,00 \$1,0 ***Cost of goods \$138,89 \$46,671 \$1,0 Cost of goods \$2,75 \$2,90 \$1,0 <th>Pipeline:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	Pipeline:						
Total throughput (barrels/day) 1,756,345 1,433,699 322,0 Throughput and other revenues \$ 701,830 \$ 611,065 \$ 90. Operating expenses 202,359 184,427 17.5 Depreciation and amortization expense 166,991 153,943 13.0 Segment operating income \$ 332,480 \$ 272,695 \$ 59.5 Storage: Throughput (barrels/day) 464,571 341,396 123,7 Throughput (barrels/day) 443,588 104,0 104,0 Throughput (barrels/day) 443,588 104,0 104,0 Throughput (barrels/day) 444,528 104,0 104,0 Throughput (barrels/day) 444,657	Crude oil pipelines throughput (barrels/day)		1,198,813		876,655		322,158
Throughput and other revenues \$ 701,830 \$ 611,065 \$ 90. Operating expenses 202,339 184.427 17.5 Depreciation and amoritzation expense 166.991 153.943 13.0 Segment operating income \$ 332,480 \$ 272,695 \$ 595.95 Storage: Throughput (barrels/day) 464,571 341,396 123. Throughput terminal revenues 339,788 300,431 (200 Total revenues 454,001 443,588 10.0 Operating expenses 202,33 194,535 7.7 Depreciation and amoritzation expense 97,573 39,345 4.4 Segment operating income \$ 154,005 \$ 155,708 \$ 1.1 Forduct sales \$ 342,215 \$ 465,651 \$ 1.23,46 Cost of goods 318,869 446,707 (127,4 Gross margin 23,346 18,944 4,4 Operating expenses \$ 20,578 \$ 1,594 4,4 Cost of goods \$ 7 7,74 1	Refined products and ammonia pipelines throughput (barrels/day)		557,532		557,044		488
Operating expenses 202,359 184,427 17,50 Depreciation and amortization expense 166,991 153,943 13,33 Segment operating income \$ 332,400 \$ 272,965 \$ 39,30 Storage: Throughput (barrels/day) 464,571 341,395 123,32 Throughput terminal revenues \$ 114,424 \$ 83,157 \$ 31,00 Storage terminal revenues 454,001 443,588 10,00 Operating expenses 202,323 194,535 7, Operating expenses 97,573 93,345 4,4 Segment operating income \$ 154,105 \$ 155,708 \$ 1,0 Fred Marketing: Product sales \$ 342,215 \$ 465,651 \$ 1,22,4 Cost of goods 318,869 446,707 \$ 123,4 Operating expenses 2,23,45 \$ 1,594 4,4 Operating expenses 2,25,75 \$ 1,594 4,4 Cost of goods 3,7 7,74 1 Total \$ 1,59,72 \$ 1,50,72	Total throughput (barrels/day)		1,756,345		1,433,699		322,646
Depreciation and amortization expense 166,91 153,943 13,045 Segment operating income \$ 332,400 \$ 272,695 \$ 59,50 Storage: Throughput (barrels/day) 464,571 341,396 123,21 Throughput (barrels/day) \$ 114,243 \$ 83,157 \$ 31,50 Storage terminal revenues \$ 339,785 360,431 20,00 Total revenues 454,601 443,588 10,0 Operating expenses 202,323 194,355 7,7 Depreciation and amortization expense 97,573 93,345 44,50 Segment operating income \$ 154,410 \$ 165,651 \$ 123,41 Feels Marketing: Total sales 3 342,215 \$ 465,651 \$ 123,41 Gost of goods 3 18,809 446,707 \$ 123,41 Gross margin 2 3,346 18,944 44,40 Operating expenses 2,769 \$ 2,60 Segment operating income \$ 20,578 \$ 1,50 \$ 2,60 Cost of goods	Throughput and other revenues	\$	701,830	\$	611,065	\$	90,765
Segment operating income \$ 332,480 \$ 272,695 \$ 59. Storage: Throughput (barrels/day) 464,571 341,395 123,31 Throughput terminal revenues \$ 114,243 \$ 83,157 \$ 31,45 Storage terminal revenues 339,758 300,431 (20,40) Total revenues 454,001 445,588 10,40 Operating expenses 202,323 194,355 7,7 Depreciation and amortization expense 97,573 93,345 4,4 Segment operating income \$ 154,105 \$ 155,708 \$ 1,4 Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (22,4) Cost of goods 318,869 446,707 \$ (27,4) Gross margin 23,346 18,944 4,4 Operating expenses 2,768 2,990 6,4 Segment operating income \$ 26,5 \$ (42) 4,4 Cost of goods 7 7,74 - Cost of goods 7 7,74 - <td>Operating expenses</td> <td></td> <td>202,359</td> <td></td> <td>184,427</td> <td></td> <td>17,932</td>	Operating expenses		202,359		184,427		17,932
Storage: Throughput (barrels/day) 464,571 341,396 123,315 3.14,316 123,315 3.14,316 20,20 3.15 3.14,20 3.15 3.14,20 3.15 3.14,20 3.15 3.14,20 3.15 3.14 20,20 3.15 3.14 20,20 3.15 3.14,358 1.0 20,20 3.14,558 1.0 20,20 3.14,558 1.0 4.0 20,20 3.14,558 1.0 4.0 20,20 3.14,558 1.0 4.0 20,20 3.14,558 1.0 4.0 2.0 2.0 3.3,45 4.4 4.2 3.2 3.2 3.2 4.4 4.2 3.2 3.2 3.1 4.4 4.2 <	Depreciation and amortization expense		166,991		153,943		13,048
Throughput (barrels/day) 464,571 341,396 123. Throughput terminal revenues \$ 114,242 \$ 33,157 \$ 31,05 Storage terminal revenues 339,758 360,31 200,00 Total revenues 454,010 443,588 100,00 Operating expenses 202,323 194,535 7,7 Depreciation and amortization expense 97,573 93,345 44,01 Segment operating income \$ 154,015 \$ 155,008 \$ 11,00 Fredstarketing: Product sales \$ 342,215 \$ 465,651 \$ (123,40) Cost of goods 318,869 446,707 (127,40) 4,40 Operating expenses 2,768 2,930 3,6 4,40 4,40 Operating expenses 2,758 2,50,20 3,40 4,40 <td>Segment operating income</td> <td>\$</td> <td>332,480</td> <td>\$</td> <td>272,695</td> <td>\$</td> <td>59,785</td>	Segment operating income	\$	332,480	\$	272,695	\$	59,785
Throughput (barrels/day) 464,571 341,396 123. Throughput terminal revenues \$ 114,243 \$ 33,157 \$ 31,05 Storage terminal revenues 339,758 360,31 200,00 Total revenues 454,010 443,588 10,0 Operating expenses 202,323 194,535 7,7 Depreciation and amortization expense 97,573 93,345 44,01 Segment operating income \$ 154,005 \$ 155,008 \$ 11,00 Freds Marketing: Product sales \$ 342,215 \$ 465,651 \$ 123,40 Cost of goods 318,669 446,707 127,4 Gross margin 2,768 2,989 2,0 Operating expenses 2,768 2,989 2,0 Segment operating income \$ 1,59,624 \$ 4,0 Cost of goods 7 7 (7) 4 Total \$ 3,0 \$ 1,50,624 \$ 2,0 Total \$ 1,50,20 \$ 1,50,20 \$ 2,0 Cost of goods 7							
Throughput terminal revenues \$ 114,243 \$ 83,157 \$ 31,00 Storage terminal revenues 339,758 360,431 (20,00 Total revenues 454,001 443,588 10,00 Operating expenses 202,323 194,535 77,00 Depreciation and amortization expense 97,573 93,345 4,0 Segment operating income \$ 154,105 \$ 155,708 \$ (1,0) Fuels Marketing: Product sales 342,215 \$ 465,651 \$ (123,40) Gos of goods 318,869 446,707 (127,40) Gross margin 23,346 18,944 4,40 Operating expenses 2,768 2,980 4,0 Segment operating income \$ 20,578 \$ 15,964 \$ 4,0 Coss of goods 7 7(74) \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$ 1,0 \$			4C 4 E 71		241 200		122 175
Storage terminal revenues 339,758 360,431 20,00 Total revenues 454,001 443,588 10,00 Operating expenses 202,323 194,535 7,00 Depreciation and amortization expense 97,573 93,345 4,40 Segment operating income \$154,105 \$155,708 \$1,60 Fredest Marketing: Product sales \$342,215 \$465,651 \$(23,400) Cost of goods 318,869 446,707 (127,400) Gross margin 2,346 18,944 4,400 Operating expenses 2,768 2,980 16,600 Segment operating income \$ 20,578 \$ 15,964 \$ 4,400 Cost of goods 7 7(4) \$ 1,400		ф		ď		ф	
Total revenues 454,001 443,588 10,0 Operating expenses 202,323 194,535 7.7 Depreciation and amortization expense 97,573 93,345 4.4 Segment operating income \$ 154,105 \$ 155,708 \$ 11,0 Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (123,400) Cost of goods 318,869 446,707 (127,400) Gross margin 23,346 18,944 44 Operating expenses 2,768 2,980 10 Segment operating income \$ 20,578 \$ 15,964 \$ 44 Operating expenses \$ 20,578 \$ 14,98 \$ 44 Cost of goods 7 (74) \$ 1 Total \$ 32,52 \$ 32 \$ 1 Cost of goods 7 (74) \$ 1 Total \$ 1,498,02 \$ 1,520,262 \$ 22,52 Cost of goods \$ 1,498,02 \$ 1,520,262 \$ 22,52 Cost associated with service revenues \$ 1,498,02		\$		Þ		Э	31,086
Operating expenses 202,323 194,535 7,7 Depreciation and amortization expense 97,573 93,345 4,6 Segment operating income \$ 154,105 \$ 155,708 \$ 1,6 Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (123,400) Cost of goods 318,869 446,707 (127,400) Gross margin 2,768 2,980 4,0 Poerating expenses 2,768 2,980 4,0 Segment operating income \$ 20,578 \$ 15,964 \$ 4,0 Cost of goods 7 7 7,4 Total \$ 3625 \$ (25) \$ (25) \$ (25) Cost of goods 7 7,74 \$ (25) <t< td=""><td></td><td></td><td></td><td>_</td><td></td><td></td><td>(20,673)</td></t<>				_			(20,673)
Depreciation and amortization expense 97,573 93,345 4,45 Segment operating income \$ 154,105 \$ 155,708 \$ 1,40 Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (123,40) Cost of goods 318,869 446,707 (127,40) Gross margin 23,346 18,944 44,607 Operating expenses 2,768 2,980 4,607 Segment operating income \$ 20,578 \$ 15,964 \$ 4,607 Cost of goods 7 7 7 Total \$ 362 \$ 32 \$ 1,502 \$ (22,402) Cost of goods 7 9 9 22,4 22,4 22,4 22,4 22,4 22,4 22,4 22,4 22,4 22,4 23,4 24,2 28,5 23,4 24,2 28,5 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10,413</td>							10,413
Segment operating income \$ 154,105 \$ 155,708 \$ (1,0) Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (123,40) Cost of goods 318,869 446,707 (127,8) Gross margin 23,346 18,944 4,4 Operating expenses 2,768 2,980 0,7 Segment operating income \$ 20,578 \$ 15,964 \$ 4,0 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ Cost of goods 7 (74) \$ \$ Total \$ (32) \$ 32 \$ \$ Cost of goods 7 (74) \$							7,788
Fuels Marketing: Product sales \$ 342,215 \$ 465,651 \$ (123,46) Cost of goods 318,869 446,707 (127,43) Gross margin 23,346 18,944 4,46 Operating expenses 2,768 2,980 0,00 Segment operating income \$ 20,578 \$ 15,964 \$ 4,60 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ (25) Cost of goods 7 (74) \$ (25) \$ (25) \$ (25) Cost of goods 7 (74) \$ (25)				_			4,228
Product sales \$ 342,215 \$ 465,651 \$ (123,45) Cost of goods 318,869 446,707 (127,45) Gross margin 23,346 18,944 4,45 Operating expenses 2,768 2,980 0,00 Segment operating income \$ 20,578 15,964 \$ 4,0 Consolidation and Intersegment Eliminations: Revenues \$ (25) (42) \$ (25) Cost of goods 7 (74) \$ (25) \$ (25) \$ (25) Total \$ (32) \$ 32 \$ (25) \$ (25) \$ (25) Costs of goods 7 (74) \$ (25)	Segment operating income	\$	154,105	\$	155,708	\$	(1,603)
Product sales \$ 342,215 \$ 465,651 \$ (123,45) Cost of goods 318,869 446,707 (127,45) Gross margin 23,346 18,944 4,45 Operating expenses 2,768 2,980 0,00 Segment operating income \$ 20,578 15,964 \$ 4,0 Consolidation and Intersegment Eliminations: Revenues \$ (25) (42) \$ (25) Cost of goods 7 (74) \$ (25) \$ (25) \$ (25) Total \$ (32) \$ 32 \$ (25) \$ (25) \$ (25) Costs of goods 7 (74) \$ (25)	Fuels Marketing:						
Cost of goods 318,869 446,707 127,8 Gross margin 23,346 18,944 4,4 Operating expenses 2,768 2,980 0,0 Segment operating income \$ 20,578 \$ 15,964 \$ 4,6 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ (25) Cost of goods 7 (74) \$ (25) \$ (25) \$ (25) Total \$ (32) \$ 32 \$ (25) \$	-	\$	342,215	\$	465,651	\$	(123,436)
Gross margin 23,346 18,944 4,4 Operating expenses 2,768 2,980 6,2 Segment operating income \$ 20,578 \$ 15,964 \$ 4,6 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ (25) Cost of goods 7 (74) \$ (74) <td>Cost of goods</td> <td></td> <td>*</td> <td></td> <td></td> <td></td> <td>(127,838)</td>	Cost of goods		*				(127,838)
Operating expenses 2,768 2,980 Commendation Segment operating income \$ 20,578 \$ 15,964 \$ 4,60 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ (25) \$ (42) \$ (25) \$ (2	-						4,402
Segment operating income \$ 20,578 \$ 15,964 \$ 4,60 Consolidation and Intersegment Eliminations: Revenues \$ (25) \$ (42) \$ (25) Cost of goods 7 (74) * (74) * (74) Total \$ (32) \$ 32 \$ (25) Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,20) Costs associated with service revenues: * (26,4564 247,288 17,20) Depreciation and amortization expense 264,564 247,288 17,20) Total costs associated with service revenues 669,246 626,250 42,50 Cost of product sales 321,644 449,613 (127,50) Segment operating income 507,131 444,399 62,70	-						(212)
Revenues \$ (25) (42) \$ Cost of goods 7 (74) 7 Total \$ (32) \$ 32 \$ Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,30) Costs associated with service revenues: \$ 404,682 378,962 25,70 Depreciation and amortization expense 264,564 247,288 17,70 Total costs associated with service revenues 669,246 626,250 42,50 Cost of product sales 321,644 449,613 (127,50) Segment operating income 507,131 444,399 62,70		\$		\$		\$	4,614
Revenues \$ (25) (42) \$ Cost of goods 7 (74) 7 Total \$ (32) \$ 32 \$ Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,30) Costs associated with service revenues: \$ 404,682 378,962 25,70 Depreciation and amortization expense 264,564 247,288 17,70 Total costs associated with service revenues 669,246 626,250 42,50 Cost of product sales 321,644 449,613 (127,50) Segment operating income 507,131 444,399 62,70							
Cost of goods 7 (74) Total \$ (32) \$ 32 \$ Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,20) Costs associated with service revenues: 404,682 378,962 25,70 Depreciation and amortization expense 264,564 247,288 17,70 Total costs associated with service revenues 669,246 626,250 42,90 Cost of product sales 321,644 449,613 (127,90 Segment operating income 507,131 444,399 62,70		_	4	_		_	
Total \$ (32) \$ 32 \$ Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,20) Costs associated with service revenues: \$ 404,682 378,962 25,70 Depreciation and amortization expense 264,564 247,288 17,20 Total costs associated with service revenues 669,246 626,250 42,90 Cost of product sales 321,644 449,613 (127,90) Segment operating income 507,131 444,399 62,70		\$		\$		\$	17
Consolidated Information: Revenues \$ 1,498,021 \$ 1,520,262 \$ (22,20) Costs associated with service revenues: \$ 264,564 247,288 17,20 Depreciation and amortization expense 264,564 247,288 17,20 Total costs associated with service revenues 669,246 626,250 42,50 Cost of product sales 321,644 449,613 (127,50) Segment operating income 507,131 444,399 62,500	-						81
Revenues \$ 1,498,021 \$ 1,520,262 \$ 22,200 Costs associated with service revenues: \$ 247,283 \$ 25,00 Operating expenses 404,682 378,962 25,00 Depreciation and amortization expense 264,564 247,288 17,00 Total costs associated with service revenues 669,246 626,250 42,00 Cost of product sales 321,644 449,613 (127,00) Segment operating income 507,131 444,399 62,00	Total	<u>\$</u>	(32)	\$	32	\$	(64)
Costs associated with service revenues: Operating expenses 404,682 378,962 25,7 Depreciation and amortization expense 264,564 247,288 17,2 Total costs associated with service revenues 669,246 626,250 42,5 Cost of product sales 321,644 449,613 (127,5 Segment operating income 507,131 444,399 62,7	Consolidated Information:						
Costs associated with service revenues: Operating expenses 404,682 378,962 25,7 Depreciation and amortization expense 264,564 247,288 17,2 Total costs associated with service revenues 669,246 626,250 42,5 Cost of product sales 321,644 449,613 (127,5 Segment operating income 507,131 444,399 62,7	Revenues	\$	1,498,021	\$	1,520,262	\$	(22,241)
Depreciation and amortization expense 264,564 247,288 17,2 Total costs associated with service revenues 669,246 626,250 42,9 Cost of product sales 321,644 449,613 (127,9 Segment operating income 507,131 444,399 62,7	Costs associated with service revenues:						
Depreciation and amortization expense 264,564 247,288 17,2 Total costs associated with service revenues 669,246 626,250 42,9 Cost of product sales 321,644 449,613 (127,9 Segment operating income 507,131 444,399 62,7			404,682		378,962		25,720
Total costs associated with service revenues 669,246 626,250 42,50 Cost of product sales 321,644 449,613 (127,9) Segment operating income 507,131 444,399 62,70							17,276
Cost of product sales 321,644 449,613 (127,93) Segment operating income 507,131 444,399 62,73				_		_	42,996
Segment operating income 507,131 444,399 62,7							(127,969)
						_	62,732
10,000 100,007 7,							7,788
•	-						(244)
		¢		\$		\$	55,188

Pipeline

Total revenues increased \$90.8 million and total throughputs increased 322,646 barrels per day for the year ended December 31, 2019, compared to the year ended December 31, 2018, primarily due to:

- an increase in revenues of \$53.8 million and an increase in throughputs of 117,953 barrels per day resulting from increased customer production supplying our Permian Crude System and the completion of new pipeline connections with higher tariffs and expansion projects;
- an increase in revenues of \$14.5 million and an increase in throughputs of 17,698 barrels per day on our Ardmore System, due to a customer's refinery turnaround in the third quarter of 2018, an increase in long-haul deliveries resulting in higher average tariffs in 2019 and the completion of new pipeline connections that began delivering Permian crude oil in the second quarter of 2019;
- an increase in revenues of \$8.5 million on our Houston pipeline, as a customer began leasing a portion of the pipeline on January 1, 2019;
- an increase in revenues of \$7.0 million and an increase in throughputs of 4,291 barrels per day on our Valley Pipeline System, mainly due to new
 customer contracts related to the completion of an expansion project in the third quarter of 2019 and a new connection that began in the fourth
 quarter of 2018:
- an increase in revenues of \$5.2 million and an increase in throughputs of 10,688 barrels per day on our East Pipeline, mainly due to owning and operating the assets associated with the Council Bluffs Acquisition for the full year in 2019;
- an increase in revenues of \$4.2 million and an increase in throughputs of 10,591 barrels per day on our Three Rivers System, due to increased demand in markets served by the system and the reactivation of our refined products pipeline to transport diesel to our Nuevo Laredo terminal in Mexico in 2019;
- an increase in revenues of \$1.3 million and an increase in throughputs of 198,962 barrels per day on our Corpus Christi Crude Pipeline System. Throughputs increased due to the completion of the 30-inch crude oil pipeline from Taft, Texas to our Corpus Christi North Beach terminal, as well as the re-contracting of certain customer contracts. Lower rates on certain customer contracts partially offset the increase in revenues from increased throughputs.

These increases were partially offset by a decrease in revenues of \$3.1 million and a decrease in throughputs of 35,418 barrels per day due to operational issues at the refinery served by our McKee System pipelines in 2019.

Operating expenses increased \$17.9 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, mainly due to:

- an increase of \$6.9 million in power costs, mainly as the result of higher throughputs on our Permian Crude System and Corpus Christi Crude Pipeline System;
- an increase of \$6.1 million in compensation expense; and
- an increase of \$1.9 million due to owning the assets associated with the Council Bluffs Acquisition for the entire period in 2019.

Depreciation and amortization expense increased \$13.0 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, mainly due to completed projects associated with the Permian Crude System and the Valley Pipeline System and owning the assets associated with the Council Bluffs Acquisition for the entire year in 2019.

Storage

Throughput terminal revenues increased \$31.1 million, while throughputs increased 123,175 barrels per day for the year ended December 31, 2019, compared to the year ended December 31, 2018 mainly due to an increase in throughput terminal revenues of \$29.9 million and an increase in throughputs of 124,562 barrels per day at our Corpus Christi North Beach terminal, consistent with higher volumes on our Corpus Christi Crude Pipeline System.

Storage terminal revenues decreased \$20.7 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, primarily due to:

- a decrease in revenues of \$24.1 million at our North East terminals, mainly due to a decrease in customer base and the re-contracting of certain customer contracts in a backwardated market, as well as an adjustment that increased revenues in 2018 resulting from a change in the term of a contract at our Linden, New Jersey terminal. Please refer to Note 7 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the revenue adjustment; and
- a decrease in revenues of \$5.8 million at our Point Tupper terminal, mainly due to a decrease in customer base.

These decreases in storage terminal revenues were partially offset by an increase in revenues of \$9.3 million at our West Coast terminals, mainly due to completed projects and higher throughput and handling fees.

Operating expenses increased \$7.8 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, primarily due to an increase in reimbursable expenses of \$7.4 million, mostly resulting from higher reimbursable wharfage activity at our Corpus Christi North Beach terminal, and higher compensation expense of \$3.8 million. These increases were partially offset by a decrease in maintenance and regulatory expense of \$4.5 million, mainly due to tank cleanings in 2018.

Depreciation and amortization expense increased \$4.2 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, mainly due to amortization expense associated with a finance lease for a dock that was completed in September 2018 and projects completed in 2019.

Fuels Marketing

Segment operating income increased \$4.6 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, primarily due to an increase in gross margins from our bunkering operations.

General

General and administrative expenses increased \$7.8 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, mainly due to higher compensation costs in 2019 and lower legal expenses in 2018.

Income tax expense decreased \$5.4 million for the year ended December 31, 2019, compared to the year ended December 31, 2018, primarily due to lower income in our taxable entities.

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

Financial Highlights

(Thousands of Dollars, Except Per Unit Data)

		Year Ended	ıber 31,		
		2018		2017	Change
Statement of Income Data:					
Revenues:					
Service revenues	\$	1,045,130	\$	955,446	\$ 89,684
Product sales		475,132		489,326	(14,194)
Total revenues	_	1,520,262		1,444,772	75,490
Costs and expenses:					
Costs associated with service revenues		626,250		552,480	73,770
Cost of product sales		449,613		485,791	(36,178)
General and administrative expenses		100,067		107,556	(7,489)
Other depreciation and amortization expense		8,604		8,435	169
Total costs and expenses		1,184,534		1,154,262	30,272
			'		
Operating income		335,728		290,510	45,218
Interest expense, net		(184,398)		(171,774)	(12,624)
Other income (expense), net		5,202		(68)	5,270
Income from continuing operations before income tax expense	_	156,532		118,668	37,864
Income tax expense		10,157		7,773	2,384
Income from continuing operations		146,375		110,895	35,480
Income from discontinued operations, net of tax		59,419		37,069	22,350
Net income	\$	205,794	\$	147,964	\$ 57,830
Basic and diluted net (loss) income per common unit:					
Continuing operations	\$	(3.34)	\$	0.23	\$ (3.57)
Discontinued operations		0.57		0.41	0.16
Total	\$	(2.77)	\$	0.64	\$ (3.41)

Annual Overview

Income from continuing operations increased \$35.5 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to higher operating income from the pipeline and fuels marketing segments, partially offset by lower operating income from the storage segment. Income from discontinued operations, net of tax increased \$22.4 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to the \$78.8 million gain recognized in the first quarter of 2018 from insurance proceeds related to hurricane damage at the St. Eustatius terminal in the third quarter of 2017, partially offset by a \$43.4 million loss from the sale of our European Operations in the fourth quarter of 2018.

Despite income from continuing operations, we incurred a net loss from continuing operations per common unit because we accounted for the Merger as an equity transaction similar to a redemption or induced conversion of preferred stock, which resulted in a loss of \$377.1 million that was subtracted from net income attributable to common unitholders in the calculation of net loss per common unit for the year ended December 31, 2018. Please refer to Notes 4 and 21 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion.

Segment Operating Highlights (Thousands of Dollars, Except Barrel/Day Information)

		Year Ended December 31,						
		2018		2017		Change		
Pipeline:								
Crude oil pipelines throughput (barrels/day)		876,655		583,323		293,332		
Refined products and ammonia pipelines throughput (barrels/day)		557,044		516,736		40,308		
Total throughput (barrels/day)		1,433,699		1,100,059		333,640		
Throughput revenues	\$	611,065	\$	516,288	\$	94,777		
Operating expenses		184,427		156,432		27,995		
Depreciation and amortization expense		153,943		128,061		25,882		
Segment operating income	\$	272,695	\$	231,795	\$	40,900		
Storage:								
Throughput (barrels/day)		341,396		325,194		16,202		
Throughput terminal revenues	\$	83,157	\$	85,927	\$	(2,770)		
Storage terminal revenues		360,431		357,089		3,342		
Total revenues		443,588		443,016		572		
Operating expenses		194,535		178,600		15,935		
Depreciation and amortization expense		93,345		91,696		1,649		
Segment operating income	\$	155,708	\$	172,720	\$	(17,012)		
Fuels Moultating								
Fuels Marketing: Product sales and other revenue	\$	465,651	\$	489,807	\$	(24,156)		
Cost of goods	J	446,707	Ф	474,188	Ф	(27,481)		
Gross margin		18,944		15,619		3,325		
Operating expenses		2,980		13,632		(10,652)		
Segment operating income	\$	15,964	\$	1,987	\$	13,977		
Segment operating income	<u>ф</u>	15,904	J.	1,907	D	13,977		
Consolidation and Intersegment Eliminations:								
Revenues	\$	(42)	\$	(4,339)	\$	4,297		
Cost of goods		(74)		(2,029)		1,955		
Operating expenses		_		(2,309)		2,309		
Total	\$	32	\$	(1)	\$	33		
Consolidated Information:	ф	4 500 000	Φ.	4 444 550	Φ.	FF 100		
Revenues	\$	1,520,262	\$	1,444,772	\$	75,490		
Costs associated with service revenues:		250 002		222 522		46.000		
Operating expenses		378,962		332,723		46,239		
Depreciation and amortization expense		247,288		219,757		27,531		
Total costs associated with service revenues		626,250		552,480		73,770		
Cost of product sales		449,613		485,791		(36,178)		
Segment operating income		444,399		406,501		37,898		
General and administrative expenses		100,067		107,556		(7,489)		
Other depreciation and amortization expense	+	8,604	_	8,435	_	169		
Consolidated operating income	\$	335,728	\$	290,510	\$	45,218		

Pipeline

Total revenues increased \$94.8 million and total throughputs increased 333,640 barrels per day for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to:

- an increase in revenues of \$68.4 million and an increase in throughputs of 242,785 barrels per day resulting from increased customer production supplying our Permian Crude System, completion of pipeline expansion projects and owning and operating the system for the entire period in 2018;
- an increase in revenues of \$16.0 million and an increase in throughputs of 38,624 barrels per day due to a turnaround in the fourth quarter of 2017 at the refinery served by our McKee System pipelines;
- an increase in revenues of \$13.0 million and an increase in throughputs of 11,318 barrels per day on our East Pipeline due to higher diesel throughputs, an increase in long-haul deliveries resulting in higher average tariffs and the Council Bluffs Acquisition; and
- an increase in revenues of \$10.8 million and an increase in throughputs of 8,742 barrels per day, mainly due to a turnaround at the refinery served by our North Pipeline in the second quarter of 2017, as well as turnaround activity at a neighboring refinery in 2018, resulting in higher demand on the North Pipeline.

These increases were partially offset by:

- a decrease in revenues of \$10.8 million on our Corpus Christi Crude Pipeline System, mainly due to contract renewals at lower rates, which more than offset an increase in throughputs of 47,338 barrels per day; and
- a decrease in revenues of \$3.4 million and a decrease in throughputs of 13,834 barrels per day on our Ardmore System, mainly due to a customer's refinery turnaround in 2018, as well as an increase in short-haul deliveries, which result in lower average tariffs.

Operating expenses increased \$28.0 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, mainly due to:

- increased operating expenses of \$16.5 million as a result of owning the Permian Crude System for the entire period in 2018 and consistent with the increase in throughputs;
- an increase of \$3.1 million resulting from the Council Bluffs Acquisition;
- an increase of \$2.7 million in salaries and wages; and
- an increase in power expenses of \$2.6 million, mainly due to increased throughputs.

Depreciation and amortization expense increased \$25.9 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, mainly due to owning the Permian Crude System for the entire period in 2018.

Storage

Throughput terminal revenues decreased \$2.8 million, while throughputs increased 16,202 barrels per day for the year ended December 31, 2018, compared to the year ended December 31, 2017. Corpus Christi North Beach terminal revenues decreased by \$6.3 million, despite increased throughputs of 10,581 barrels per day mainly driven by higher Corpus Christi Crude System volumes, due to lower storage rates and lower dock revenues as additional volumes were delivered to our customer's refineries instead of over our docks. Revenues increased \$3.8 million and throughputs increased 7,343 barrels per day at our Central West Terminals, mainly due to increased demand in markets served by those terminals.

Storage terminal revenues increased \$3.3 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to:

- an increase of \$9.4 million at our West Coast Terminals, mainly due to project completions, rate escalations and higher throughput and associated handling fees;
- an increase of \$8.1 million at our North East Terminals, mainly due to an adjustment to revenues resulting from a change in the term of a contract and the completion of a tank expansion project at our Linden terminal, partially offset by a decrease in revenues at our Piney Point terminal due to the non-renewal at expiration of certain customer contracts. Please refer to Note 7 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the revenue adjustment; and
- an increase of \$1.9 million due to higher reimbursable revenues at our Point Tupper terminal.

These increases were partially offset by the following:

- a decrease of \$15.5 million at our Gulf Coast Terminals, mainly due to a backwardated market resulting in the non-renewal at expiration of certain customer contracts and lower throughput and associated handling fees; and
- a decrease of \$1.9 million due to lower throughput and handling fees at our Point Tupper terminal.

Operating expenses increased \$15.9 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to:

- an increase in salaries and wages of \$4.8 million, and an increase in maintenance and regulatory expenses of \$1.8 million, both spread across various regions;
- an increase in reimbursable expenses of \$4.8 million at various terminals, primarily due to tank cleanings at our Point Tupper and Corpus Christi North Beach terminals, which was offset by a corresponding increase in reimbursable revenues; and
- an increase in insurance expense of \$1.5 million across all terminals due to premium increases.

Depreciation and amortization expense increased \$1.6 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, mainly as the result of the completion of various storage projects.

Fuels Marketing

Segment operating income increased \$14.0 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to an increase of \$9.2 million in operating income from our blending operations and other product sales, and a reduction in operating losses of \$5.6 million incurred by our heavy fuels trading operations.

Consolidation and Intersegment Eliminations

Revenue and operating expense eliminations primarily relate to storage fees charged to the fuels marketing segment by the storage segment. Cost of product sales eliminations represent expenses charged to the fuels marketing segment for costs associated with inventory that are expensed once the inventory is sold.

General

General and administrative expenses decreased \$7.5 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to transaction costs related to the Navigator Acquisition in 2017, partially offset by higher compensation costs.

Interest expense, net increased \$12.6 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, mainly due to the issuance of \$550.0 million of 5.625% senior notes on April 28, 2017 to partially fund the Navigator Acquisition and higher interest rates.

Income tax expense increased \$2.4 million for the year ended December 31, 2018, compared to the year ended December 31, 2017, primarily due to an increase in taxes associated with the Permian Crude System.

TRENDS AND OUTLOOK

For 2020, we expect to continue to benefit from several significant expansion projects completed in 2019. These projects mainly relate to continued growth in Permian Basin production, which led to an expansion of our Permian Crude System and other assets experiencing a "spillover" effect from Permian Basin growth. Additionally, during 2019, we completed projects to handle bio-fuels demand on the West Coast and to expand pipelines to facilitate the export of refined products to Northern Mexico. Although we expect a significant reduction in our capital spending in 2020, our focus will continue to be on projects to accommodate production growth in the Permian Basin (on our Permian and Corpus Christi crude systems), to handle bio-fuels demand on the West Coast and to increase flexibility at our St. James terminal.

Our outlook for the partnership, both overall and for any of our segments, may change, as we base our expectations on our continuing evaluation of a number of factors, many of which are outside our control. These factors include, but are not limited to, the state of the economy and the capital markets, changes to our customers' refinery maintenance schedules and unplanned refinery downtime, crude oil prices, the supply of and demand for crude oil, refined products and anhydrous ammonia, demand for our transportation and storage services and changes in laws or regulations affecting our assets.

LIQUIDITY AND CAPITAL RESOURCES

Overview

Our primary cash requirements are for distributions to our partners, debt service, capital expenditures, acquisitions and operating expenses.

Our partnership agreement requires that we distribute all "Available Cash" to our common limited partners and, prior to the Merger, to our general partner each quarter. "Available Cash" is defined in the partnership agreement generally as cash on hand at the end of the quarter, plus certain permitted borrowings made subsequent to the end of the quarter, less cash reserves determined by our board of directors, subject to requirements for distributions for our preferred units. The board of directors of NuStar GP, LLC reset our quarterly distribution per common unit to \$0.60 (\$2.40 on an annualized basis), starting with the 2018 first-quarter distribution, which was paid on May 14, 2018. As a result of the Merger, our general partner no longer receives incentive distributions or quarterly cash distributions from us, and we issued approximately 13.4 million incremental NuStar Energy common units in exchange for previously outstanding Holdings units. Please refer to Note 4 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion regarding the Merger.

Each year, our objective is to fund our reliability capital expenditures and distribution requirements with our net cash provided by operating activities during that year. If we do not generate sufficient cash from operations to meet that objective, we utilize cash on hand or other sources of cash flow, which in the past have primarily included borrowings under our revolving credit agreement, sales of non-strategic assets and, to the extent necessary, funds raised through equity or debt offerings. We have typically funded our strategic capital expenditures and acquisitions from external sources, primarily borrowings under our revolving credit agreement or funds raised through equity or debt offerings. However, our ability to raise funds by issuing debt or equity depends on many factors beyond our control. Our risk factors in Item 1A. "Risk Factors" describe the risks inherent to these sources of funding and the availability thereof.

During periods when our cash flow from operations is less than our distribution and reliability capital requirements, we may maintain our distribution level because we can use other sources of Available Cash, as provided in our partnership agreement, including borrowings under our revolving credit agreement and proceeds from the sales of assets. Our risk factors in Item 1A. "Risk Factors" describe the risks inherent in our ability to maintain or grow our distribution.

For 2020, we expect to generate sufficient cash from operations to fund our distribution requirements, reliability capital expenditures, and a portion of our strategic capital expenditures.

Cash Flows for the Years Ended December 31, 2019, 2018 and 2017

The following table summarizes our cash flows from operating, investing and financing activities (please refer to our Consolidated Statements of Cash Flows in Item 8. "Financial Statements and Supplementary Data"). The consolidated statements of cash flows have not been adjusted to separately disclose cash flows related to discontinued operations.

Year Ended December 31,									
	2019		2018		2017				
(Thousands of Dollars)									
\$	508,757	\$	544,207	\$	406,799				
	(319,247)		(153,778)		(1,696,441)				
	(177,650)		(399,867)		1,276,272				
	(524)		(1,210)		1,720				
\$	11,336	\$	(10,648)	\$	(11,650)				
	\$	\$ 508,757 (319,247) (177,650) (524)	\$ 508,757 \$ (319,247) (177,650) (524)	\$ 508,757 \$ 544,207 (319,247) (153,778) (177,650) (399,867) (524) (1,210)	\$ 508,757 \$ 544,207 \$ (319,247) (153,778) (177,650) (399,867) (524) (1,210)				

Net cash provided by operating activities for the year ended December 31, 2019 was \$508.8 million, compared to \$544.2 million for the year ended December 31, 2018, primarily due to changes in working capital. Our working capital increased by \$44.8 million for the year ended December 31, 2019, compared to a decrease of \$78.3 million for the year ended December 31, 2018. Please refer to the "Working Capital Requirements" section below for a discussion of the changes in working capital.

For the year ended December 31, 2019, the net cash provided by operating activities was used to fund our distributions to unitholders of \$380.0 million, reliability capital expenditures of \$66.6 million and a portion of our strategic capital expenditures. Proceeds from the sale of the St. Eustatius Operations along with net proceeds from debt borrowings were used to fund the remainder of our strategic capital expenditures, which are described in the Capital Requirements section below.

For the year ended December 31, 2018, net cash provided by operating activities was used to fund our distributions to unitholders and our general partner in the aggregate amount of \$391.4 million and the cash consideration for the Merger of \$67.8 million. Net cash provided by operating activities and a portion of the insurance proceeds we received in the first quarter of 2018 in settlement of our property damage claim for our St. Eustatius terminal were used to fund reliability capital expenditures of \$77.2 million. The remainder of cash provided by operating activities and proceeds from debt borrowings were used to fund our strategic capital expenditures, including acquisitions, of \$417.8 million. The proceeds from the issuance of units and the sale of our European operations along with a portion of the insurance proceeds were used to repay outstanding borrowings under our revolving credit agreement.

For the year ended December 31, 2017, net cash provided by operating activities, the proceeds from the termination of the Axeon Term Loan of \$110.0 million and cash on hand were used to fund our distributions to unitholders and our general partner in the aggregate amount of \$485.1 million and reliability capital expenditures of \$57.5 million. Proceeds from our debt and equity issuances of approximately \$1.5 billion were used to fund the purchase price of the Navigator Acquisition. The proceeds from debt borrowings, net of repayments, remaining proceeds from our equity issuances and cash on hand were used to fund our other strategic capital expenditures.

Asset Sales

Proceeds from the St. Eustatius Disposition in 2019 and the European Disposition in 2018 were initially used to repay outstanding borrowings under our revolving credit agreement, increasing the amount available for borrowing. These sales were part of our plan to improve our debt metrics and partially fund capital projects to grow our core business in North America.

Debt Sources of Liquidity

Revolving Credit Agreement. On September 12, 2019, NuStar Logistics amended its revolving credit agreement (the Revolving Credit Agreement) primarily to extend the maturity date to October 29, 2021 and reduce the total amount available for borrowing from \$1.4 billion to \$1.2 billion.

On June 29, 2018, NuStar Logistics amended the Revolving Credit Agreement to exclude the Series D Preferred Units from the definition of "Indebtedness." Additionally, the amendment reduced the total amount available for borrowing from \$1.75 billion to \$1.575 billion, effective June 29, 2018, with a further reduction to \$1.4 billion, effective December 28, 2018. The Revolving Credit Agreement was also amended to, among other things, add a minimum consolidated interest coverage ratio (as defined in the Revolving Credit Agreement), which must not be less than 1.75-to-1.00 for each rolling period of four quarters, beginning with the rolling period ending June 30, 2018. As of December 31, 2019, our consolidated interest coverage ratio was 2.49x.

The maximum consolidated debt coverage ratio and minimum consolidated interest coverage ratio requirements may limit the amount we can borrow under the Revolving Credit Agreement to an amount less than the total amount available for borrowing. The Revolving Credit Agreement also contains customary restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. As of December 31, 2019, our consolidated debt coverage ratio was 3.88x and we had \$721.0 million available for borrowing. Obligations under the Revolving Credit Agreement are guaranteed by NuStar Energy and NuPOP.

Letters of credit issued under the Revolving Credit Agreement totaled \$4.0 million as of December 31, 2019. Letters of credit are limited to \$400.0 million and also may restrict the amount we can borrow under the Revolving Credit Agreement.

Receivables Financing Agreement. NuStar Energy and NuStar Finance LLC (NuStar Finance), a special purpose entity and wholly owned subsidiary of NuStar Energy, are parties to a \$125.0 million receivables financing agreement with third-party lenders (the Receivables Financing Agreement) and agreements with certain of NuStar Energy's wholly owned subsidiaries (together with the Receivables Financing Agreement, the Securitization Program). On April 29, 2019, we amended the Receivables Financing Agreement to extend the scheduled termination date from September 20, 2020 to September 20, 2021, with the option to renew for additional 364-day periods thereafter, and to amend certain provisions with respect to receivables related to certain customers. The amount available for borrowing under the Receivables Financing Agreement is limited to \$125.0 million and is based on the availability of eligible receivables and other customary factors and conditions. The Securitization Program contains various customary affirmative and negative covenants and default, indemnification and termination provisions, and the Receivables Financing Agreement provides for acceleration of amounts owed upon the occurrence of certain specified events.

Note Issuances. On May 22, 2019, NuStar Logistics issued \$500.0 million of 6.0% senior notes due June 1, 2026. We received net proceeds of \$491.6 million, which we initially used to repay outstanding borrowings under our Revolving Credit Agreement. The interest on the 6.0% senior notes is payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2019. On April 28, 2017, NuStar Logistics issued \$550.0 million of 5.625% senior notes due

April 28, 2027. We used the net proceeds of \$543.3 million from the offering to fund a portion of the purchase price for the Navigator Acquisition and to pay related fees and expenses. Interest on the 5.625% senior notes is payable semi-annually in arrears on April 28 and October 28 of each year, beginning on October 28, 2017. The 6.0% and 5.625% senior notes do not have sinking fund requirements. These senior notes rank equally with existing senior unsecured indebtedness and senior to existing subordinated indebtedness of NuStar Logistics. These senior notes contain restrictions on NuStar Logistics' ability to incur secured indebtedness unless the same security is also provided for the benefit of holders of the senior notes. In addition, these senior notes limit NuStar Logistics' ability to incur indebtedness secured by certain liens, engage in certain sale-leaseback transactions and engage in certain consolidations, mergers or asset sales.

Short-Term Line of Credit Agreement. As of December 31, 2019, we were a party to a line of credit agreement with an uncommitted borrowing capacity of up to \$35.0 million, with \$5.5 million of borrowings outstanding.

Please refer to Note 14 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of our debt agreements.

LOC Agreement

NuStar Logistics is a party to a \$100.0 million uncommitted letter of credit agreement, which provides for standby letters of credit or guarantees with a term of up to one year (LOC Agreement). Any letters of credit issued under the LOC Agreement do not reduce availability under the Revolving Credit Agreement. As of December 31, 2019, we had no letters of credit issued under the LOC Agreement.

Repatriation

We may repatriate a portion of undistributed foreign earnings in order to provide greater flexibility to meet cash flow needs. During the year ended December 31, 2017, we repatriated \$9.5 million of cash from our foreign subsidiaries. We will continue to evaluate our cash flow needs and may repatriate funds from our foreign subsidiaries as a source of liquidity.

Issuances of Units

Common Units. In the fourth quarter of 2019, we issued 527,426 common units to William E. Greehey, Chairman of the Board of Directors of NuStar GP, LLC, at a price of \$28.44 per unit for total proceeds of \$15.0 million. In the second quarter of 2018, we issued 413,736 common units to William E. Greehey at a price of \$24.17 per unit for total proceeds of \$10.2 million, including a contribution of \$0.2 million from our general partner to maintain the 2% general partner economic interest it owned at that time. Proceeds were used for general partnership purposes.

As a result of the Merger, in the third quarter of 2018, we issued approximately 13.4 million incremental NuStar Energy common units in exchange for the previously outstanding Holdings units.

In the second quarter of 2017, we issued 14,375,000 common units at a price of \$46.35 per unit. We used the net proceeds from this offering of \$657.5 million, including a contribution of \$13.6 million from our general partner to maintain the 2% general partner economic interest it owned at that time, to fund a portion of the purchase price for the Navigator Acquisition. Beginning with the distribution earned for the second quarter of 2017, our general partner did not receive incentive distributions with respect to these common units.

Preferred Units. In June and July of 2018, we issued a total of 23,246,650 Series D Preferred Units at a price of \$25.38 per unit in private placements for net proceeds of \$555.8 million. The Series D Preferred Units contain various conversion and redemption features. We used the net proceeds from the issuance of the Series D Preferred Units for general partnership purposes, including repayment of outstanding borrowings under our Revolving Credit Agreement.

In the fourth quarter of 2017, we issued 6,900,000 of our 9.00% Series C Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (Series C Preferred Units) representing limited partner interests at a price of \$25.00 per unit. We used the net proceeds of \$166.7 million from the issuance of the Series C Preferred Units for general partnership purposes, including the funding of capital expenditures and repayments of outstanding borrowings under the Revolving Credit Agreement.

In the second quarter of 2017, we issued 15,400,000 of our 7.625% Series B Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (Series B Preferred Units) representing limited partner interests at a price of \$25.00 per unit. We used the net proceeds of \$371.8 million from the issuance of the Series B Preferred Units to fund a portion of the purchase price for the Navigator Acquisition and to pay related fees and expenses.

Please see Notes 19 and 20 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information on these issuances.

Capital Requirements

Our operations require significant investments to maintain, upgrade or enhance the operating capacity of our existing assets. Our capital expenditures consist of:

- strategic capital expenditures, such as those to expand or upgrade the operating capacity, increase efficiency or increase the earnings potential of existing assets, whether through construction or acquisition, as well as certain capital expenditures related to support functions; and
- reliability capital expenditures, such as those required to maintain the current operating capacity of existing assets or extend their useful lives, as well as those required to maintain equipment reliability and safety.

The following table summarizes our capital expenditures for the past three years, and the amount we expect to spend in 2020:

	Str	ategi	c			
	Acquisitions	Capital Expenditures		Reliability Capital Expenditures	Total	
			(Thousan	ds of D	ollars)	
For the year ended December 31:						
2019	\$ _	\$	466,996	\$	66,572	\$ 533,568
2018	\$ 37,502	\$	380,298	\$	77,154	\$ 494,954
2017	\$ 1,461,719	\$	327,141	\$	57,497	\$ 1,846,357
Expected for the year ended December 31, 2020			\$ 300,000 - 350,000		\$ 40,000 - 50,000	

Strategic capital expenditures for the year ended December 31, 2019 mainly consisted of pipeline expansions on our Permian Crude System, Northern Mexico refined products supply projects and an export project to connect our Corpus Christi North Beach terminal to long-haul pipelines transporting crude oil from the Permian Basin. Strategic capital expenditures for the year ended December 31, 2018 consisted of pipeline expansions on our Permian Crude System and projects at the St. Eustatius and Linden terminals. Reliability capital expenditures primarily related to maintenance upgrade projects at our terminals, including costs to repair the property damage at the St. Eustatius terminal.

For the year ended December 31, 2020, we expect a significant portion of our strategic capital spending to relate to our expansion projects to accommodate production growth in the Permian Basin (on our Permian Crude System and Corpus Christi Crude System), projects to handle bio-fuels demand on the West Coast and projects to increase flexibility at our St. James terminal. We continue to evaluate our capital budget and make changes as economic conditions warrant, and our actual capital expenditures for 2020 may increase or decrease from the expected amounts noted above. In addition, we are currently evaluating reconstruction efforts related to a fire at our terminal facility in Selby, California, which could cause capital expenditures to be higher than the expected amounts noted above; however, we expect to receive insurance proceeds that will cover these capital expenditures. We believe cash on hand, combined with the sources of liquidity previously described, will be sufficient to fund our capital expenditures in 2020, and our internal growth projects can be accelerated or scaled back depending on market conditions or customer demand.

Working Capital Requirements

Working capital requirements are mainly affected by our accounts receivable and accounts payable balances, which vary depending on the timing of payments.

During the year ended December 31, 2019, accounts receivable increased \$23.5 million, mainly due to an insurance receivable of \$20.5 million associated with estimated insurance recoveries related to a fire at our terminal facility in Selby, California. Please refer to Note 1 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information. Additionally, accrued liabilities decreased \$19.6 million, mainly due to revenue recognized during the period that was included in a contract liability at the beginning of the year, as discussed in Note 7 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

During the year ended December 31, 2018, accrued liabilities increased \$39.6 million, mainly due to the recognition of a contract liability associated with a non-refundable one-time payment of storage fees from a customer. Please refer to Note 7 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information. Additionally, accounts receivable decreased \$22.5 million, mainly due to the sale of our European Operations in the fourth quarter of 2018.

During the year ended December 31, 2017, accounts payable decreased \$30.4 million and inventories decreased \$11.9 million, primarily due to our exit from our heavy fuels trading and crude oil marketing operations in 2017.

Axeon Term Loan and Credit Support

On February 22, 2017, we settled and terminated the \$190.0 million Axeon Term Loan, pursuant to which we also provided credit support, such as guarantees, letters of credit and cash collateral, as applicable, of up to \$125.0 million to Axeon. We received \$110.0 million in settlement of the Axeon Term Loan, and our obligation to provide ongoing credit support to Axeon ceased.

Defined Benefit Plans Funding

During 2019, we contributed \$11.3 million to our pension and postretirement benefit plans. We expect to contribute approximately \$11.7 million to our pension and postretirement benefit plans in 2020, which principally represents contributions either required by regulations or laws or, with respect to unfunded plans, necessary to fund current benefits. Pension and postretirement benefit plans funding beyond 2020 is uncertain as the funding varies from year to year based upon changes in the fair value of the plan assets and actuarial assumptions.

Distributions

General Partner and Common Limited Partners. Distribution payments are made to our common limited partners within 45 days after the end of each quarter as of a record date that is set after the end of each quarter. The following table summarizes information about quarterly cash distributions to our common limited partners.

Quarter Ended	Distributions er Unit	 Total Cash Distributions	Record Date	Payment Date
December 31, 2019	\$ 0.60	\$ 65,128	February 10, 2020	February 14, 2020
September 30, 2019	\$ 0.60	\$ 64,660	November 8, 2019	November 14, 2019
June 30, 2019	\$ 0.60	\$ 64,658	August 7, 2019	August 13, 2019
March 31, 2019	\$ 0.60	\$ 64,690	May 8, 2019	May 14, 2019

Pursuant to the terms of our partnership agreement, prior to the Merger, the general partner received a 2% distribution with respect to its general partner economic interest it owned at that time. The general partner was also entitled to incentive distributions if the amount we distributed with respect to any quarter exceeded \$0.60 per unit. For the first quarter of 2018, the general partner did not receive incentive distributions because the distribution declared was \$0.60 per common unit, which was below the amount necessary to receive incentive distributions. Because the Merger was effective prior to the record date for the distribution for the second quarter of 2018, the general partner received no distributions after the first quarter of 2018 distribution. Beginning with the second quarter of 2018, the common limited partners' distribution includes the additional common units issued in exchange for previously outstanding Holdings units because the Merger closed prior to the common unit distribution record date for the second quarter of 2018. Please refer to Note 4 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of the Merger. For a discussion of the incentive distribution targets prior to the Merger, please read Note 20 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

The following table reflects the allocation of total cash distributions to the general partner and common limited partners applicable to the period in which the distributions were earned:

	Year Ended December 31,									
		2019		2018		2017				
		(Thousa	nds of D	ollars, Except Per I	Jnit Dat	a)				
General partner interest	\$	_	\$	1,141	\$	9,252				
General partner incentive distribution		_				45,669				
Total general partner distribution		_		1,141		54,921				
Common limited partners' distribution		259,136		248,705		407,681				
Total cash distributions	\$	259,136	\$	249,846	\$	462,602				
Cash distributions per unit applicable to common limited partners	\$	2.40	\$	2.40	\$	4.38				

Preferred Units. The following table provides the terms related to distributions for our Series A, Series B and Series C Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units:

Units	Fixed Distribution Rate Per Annum (as a Percentage of the \$25.00 Liquidation Preference Per Unit)	 Fixed Distribution Rate Per Unit Per Annum		xed Distribution Per Annum	Optional Redemption Date/Date at Which Distribution Rate Becomes Floating	Floating Annual Rate (as a Percentage of the \$25.00 Liquidation Preference Per Unit)
			((Thousands of Dollars)		
Series A Preferred Units	8.50%	\$ 2.125	\$	19,252	December 15, 2021	Three-month LIBOR plus 6.766%
Series B Preferred Units	7.625%	\$ 1.90625	\$	29,357	June 15, 2022	Three-month LIBOR plus 5.643%
Series C Preferred Units	9.00%	\$ 2.25	\$	15,525	December 15, 2022	Three-month LIBOR plus 6.88%

As discussed above, in June and July of 2018, we issued an aggregate of 23,246,650 Series D Preferred Units. The distribution rate on the Series D Preferred Units is: (i) 9.75% per annum (\$57.6 million per annum) for the first two years (beginning with the September 17, 2018 distribution); (ii) 10.75% per annum (\$63.4 million per annum) for years three through five; and (iii) the greater of 13.75% per annum (\$81.1 million per annum) or the distribution per common unit thereafter. While the Series D Preferred Units are outstanding, the Partnership will be prohibited from paying distributions on any junior securities, including the common units, unless full cumulative distributions on the Series D Preferred Units (and any parity securities) have been, or contemporaneously are being, paid or set aside for payment through the most recent Series D Preferred Unit distribution payment date. Any Series D Preferred Unit distributions in excess of \$0.635 may be paid, in the Partnership's sole discretion, in additional Series D Preferred Units, with the remainder paid in cash. If we fail to pay in full any Series D Preferred Unit distribution amount, then, until we pay such distributions in full, the applicable distribution rate for those distribution periods shall be increased by \$0.048 per Series D Preferred Unit. We would also be subject to other requirements.

Distributions on our preferred units are payable out of any legally available funds, accrue and are cumulative from the original issuance dates, and are payable on the 15th day (or next business day) of each of March, June, September and December of each year to holders of record on the first business day of each payment month. Please see Notes 19 and 20 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information.

In January 2020, our board of directors declared quarterly distributions with respect to the Series A, B and C Preferred Units and the Series D Preferred Units to be paid on March 16, 2020.

Debt Obligations

As of December 31, 2019, we were a party to the following debt agreements:

- Revolving Credit Agreement due October 29, 2021, with \$475.0 million of borrowings outstanding as of December 31, 2019;
- 4.80% senior notes due September 1, 2020 with a face value of \$450.0 million; 6.75% senior notes due February 1, 2021 with a face value of \$300.0 million; 4.75% senior notes due February 1, 2022 with a face value of \$250.0 million; 6.0% senior notes due June 1, 2026 with a face value of \$500.0 million; 5.625% senior notes due April 28, 2027 with a face value of \$550.0 million; and subordinated notes due January 15, 2043 with a face value of \$402.5 million and a floating interest rate;
- \$365.4 million in GoZone Bonds due from 2038 to 2041;
- Line of credit agreement with \$5.5 million of borrowings outstanding as of December 31, 2019; and
- · Receivables Financing Agreement due September 20, 2021, with \$62.2 million of borrowings outstanding as of December 31, 2019.

We expect to refinance senior note maturities in 2020 and 2021 by utilizing the capital markets, pursuing other sources of debt financing or with funds available under our revolving credit agreement.

Effective January 15, 2018, the interest rate on NuStar Logistics' \$402.5 million of fixed-to-floating rate subordinated notes due January 15, 2043 switched from a fixed annual rate of 7.625%, payable quarterly in arrears, to an annual rate equal to the sum of the three-month LIBOR for the related quarterly interest period, plus 6.734% payable quarterly, commencing with the interest payment due April 15, 2018. As of December 31, 2019, the interest rate was 8.7%.

Management believes that, as of December 31, 2019, we are in compliance with the ratios and covenants contained in our debt instruments. A default under certain of our debt agreements would be considered an event of default under other of our debt instruments. Please refer to Note 14 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of our debt agreements.

Credit Ratings

In the second quarter of 2019, our credit rating was downgraded by S&P Global Ratings from BB to BB-, and our outlook was changed from negative to stable by the three credit rating agencies identified in the table below. Per the terms of the Revolving Credit Agreement, these changes did not impact the interest rate on our Revolving Credit Agreement, which is the only debt arrangement with an interest rate that is subject to adjustment if our debt rating is downgraded (or upgraded) by certain credit rating agencies. The following table reflects the current outlook and ratings that have been assigned to our debt:

	Fitch, Inc.	Moody's Investor Service Inc.	S&P Global Ratings
Ratings	BB	Ba2	BB-
Outlook	Stable	Stable	Stable

Interest Rate Swaps

As of December 31, 2019 and 2018, we were a party to forward-starting interest rate swap agreements that terminate in September 2020, for the purpose of hedging interest rate risk. As of December 31, 2019 and 2018, the aggregate notional amount of these forward-starting interest rate swaps was \$250.0 million. In connection with the April 2018 maturity of the 7.65% senior notes, we terminated forward-starting interest rate swap agreements with an aggregate notional amount of \$350.0 million and received \$8.0 million. Please refer to Notes 2 and 18 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" and Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" for a more detailed discussion of our interest rate swaps.

The following table presents the aggregate notional amounts and fair values of the forward-starting interest rate swaps:

	<u></u>	December 31,				
		2019	2018			
		(Thousands of Dol	llars)			
Notional amount	\$	250,000 \$	250,000			
Fair value	\$	(19,169) \$	(124)			

Long-Term Contractual Obligations

The following table presents our long-term contractual obligations and commitments and the related payments due, in total and by period, as of December 31, 2019:

Payments Due by Period												
		2020		2021 2022			2023 2024		Thereafter	Total		
							(Tho	usands of Dolla	ars)			
Long-term debt maturities	\$	450,000	\$	837,200	\$	250,000	\$	_	\$	_	\$ 1,817,940	\$ 3,355,140
Interest payments (a)		183,704		145,517		111,559		106,395		107,040	979,970	1,634,185
Operating leases (b)		12,647		9,419		8,717		7,605		6,739	60,354	105,481
Finance leases (b)		6,702		5,252		4,582		4,480		4,067	59,681	84,764
Purchase obligations (c)		8,935		7,643		6,202		1,485		812	5,157	30,234
Total	\$	661,988	\$	1,005,031	\$	381,060	\$	119,965	\$	118,658	\$ 2,923,102	\$ 5,209,804

- (a) The interest payments calculated for our variable-rate, long-term debt are based on interest rates and the outstanding borrowings as of December 31, 2019. The interest payments on our fixed-rate debt are based on the stated interest rates and the outstanding borrowings as of December 31, 2019.
- (b) Our operating leases consist primarily of land and dock leases at various terminal facilities. Our finance leases consist primarily of a dock lease at a terminal facility with an initial term of five years and four additional five-year renewal periods that also includes a commitment for minimum dockage and wharfage throughput volumes. Please see Note 17 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for additional information.
- (c) A purchase obligation is an enforceable and legally binding agreement to purchase goods or services that specifies significant terms, including (i) fixed or minimum quantities to be purchased, (ii) fixed, minimum or variable price provisions and (iii) the approximate timing of the transaction.

We also have pension and other postretirement benefit obligations recorded in "Other long-term liabilities" on our consolidated balance sheets which have been excluded from the contractual obligations table above due to the uncertainty in timing as to the future cash flows related to these obligations. For additional information on our pension and other postretirement benefit obligations see Note 23 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

Environmental, Health and Safety

Our operations are subject to extensive international, federal, state and local environmental laws and regulations, in the U.S. and in the other countries in which we operate, including those relating to the discharge of materials into the environment, waste management, remediation, the characteristics and composition of fuels, climate change and greenhouse gases. Our operations are also subject to extensive health, safety and security laws and regulations, including those relating to worker and pipeline safety, pipeline and storage tank integrity and operations security. Because more stringent environmental and safety laws and regulations are continuously being enacted or proposed, the level of expenditures required for environmental, health and safety matters is expected to increase in the future.

The balance of and changes in our accruals for environmental matters as of and for the years ended December 31, 2019 and 2018 are included in Note 15 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data." We believe that we have adequately accrued for our environmental exposures.

Contingencies

We are subject to certain loss contingencies, and we believe that the resolution of any particular claim or proceeding, or all matters in the aggregate, would not have a material adverse effect on our results of operations, financial position or liquidity, as further disclosed in Note 16 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data."

CRITICAL ACCOUNTING POLICIES

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to select accounting policies and to make estimates and assumptions related thereto that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. The accounting policies below are considered critical due to judgments made by management and the sensitivity of these estimates to deviations of actual results from management's assumptions. The critical accounting policies should be read in conjunction with Note 2 of the Notes to the Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data," which summarizes our significant accounting policies.

Impairment of Long-Lived Assets

We test long-lived assets for recoverability whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. We evaluate recoverability using undiscounted estimated net cash flows generated by the related asset or asset group. If the results of that evaluation indicate that the undiscounted cash flows are less than the carrying amount of the asset (i.e., the asset is not recoverable) we perform an impairment analysis. If our intent is to hold the asset for continued use, we determine the amount of impairment as the amount by which the net carrying value exceeds its fair value. If our intent is to sell the asset, and the criteria required to classify an asset as held for sale are met, we determine the amount of impairment as the amount by which the net carrying amount exceeds its fair value less costs to sell.

In determining the existence of an impairment of the carrying value of an asset, we make a number of subjective assumptions as to:

- whether there is an event or circumstance that may indicate that the carrying amount of an asset may not be recoverable;
- the grouping of assets;
- the intention of holding, abandoning or selling an asset;
- · the forecast of undiscounted expected future cash flows with respect to an asset or asset group; and
- if an impairment exists, the fair value of the asset or asset group.

Our estimates of undiscounted future cash flows include: (i) discrete financial forecasts, which rely on management's estimates of revenue and operating expenses; (ii) long-term growth rates; and (iii) estimates of useful lives of the assets. The identification of impairment indicators and the estimates of future undiscounted cash flows are highly subjective and are based on numerous assumptions about future operations and market conditions, which we believe to be reasonable but are inherently uncertain. The uncertainties underlying our assumptions and estimates could differ significantly from actual results and could cause a different conclusion about the recoverability of our assets. If that were to occur, and we determined an asset was impaired, the amount of impairment could be material to our results of operations.

We recorded long-lived asset impairment charges of \$305.7 million in 2019. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data," for discussion of the impairment charges.

Impairment of Goodwill

We perform an assessment of goodwill annually or more frequently if events or changes in circumstances warrant. We have the option to first perform a qualitative annual assessment to determine whether it is necessary to perform a quantitative goodwill impairment test. A qualitative assessment includes, among other things, industry and market considerations, overall financial performance, other entity-specific events and events affecting individual reporting units. If after assessing the totality of events or circumstances for each reporting unit, we determine that it is more likely than not that the carrying value exceeds its fair value, then we would perform an impairment test for that reporting unit. We performed a qualitative assessment as of October 1, 2019, and determined it was not more likely than not that the estimated fair value of each reporting unit exceeded its carrying value; thus, goodwill was not impaired.

We recognize an impairment of goodwill if the carrying value of goodwill exceeds its estimated fair value. In order to estimate the fair value of goodwill, management must make certain estimates and assumptions that affect the total fair value of the reporting unit including, among other things, an assessment of market conditions, projected cash flows, discount rates and growth rates. Management's estimates of projected cash flows related to the reporting unit include, but are not limited to, future earnings of the reporting unit, assumptions about the use or disposition of the asset, estimated remaining life of the asset, and future expenditures necessary to maintain the asset's existing service potential.

We calculate the estimated fair value of each of our reporting units using a weighted-average of values calculated using an income approach and a market approach. The income approach involves estimating the fair value of each reporting unit by discounting its estimated future cash flows using a discount rate, consistent with a market participant's assumption. The market

approach bases the fair value measurement on information obtained from observed stock prices of public companies and recent merger and acquisition transaction data of comparable entities.

Our reporting units to which goodwill has been allocated consist of the following as of October 1, 2019:

- · crude oil pipelines;
- · refined product pipelines; and
- terminals, excluding our Point Tupper facility and our refinery crude storage tanks.

We recognized a goodwill impairment charge of \$31.1 million in the first quarter of 2019. Please refer to Note 5 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data," for discussion of the impairment charges.

Derivative Financial Instruments

We utilize various derivative instruments to manage our exposure to interest rate risk and commodity price risk. We record derivative instruments in the consolidated balance sheets at fair value, and apply hedge accounting when appropriate. We record changes to the fair values of derivative instruments in earnings for fair value hedges or as part of accumulated other comprehensive income (AOCI) for the effective portion of cash flow hedges. We reclassify the effective portion of cash flow hedges from AOCI to earnings when the underlying forecasted transaction occurs or becomes probable not to occur. We recognize ineffectiveness resulting from our derivatives immediately in earnings. With respect to cash flow hedges, we must exercise judgment to assess the probability of the forecasted transaction, which, among other things, depends upon market factors and our ability to reliably operate our assets.

Defined Benefit Plans

We estimate pension and other postretirement benefit obligations and costs based on actuarial valuations. The annual measurement date for our pension and other postretirement benefit plans is December 31. The actuarial valuations require the use of certain assumptions including discount rates, expected long-term rates of return on plan assets and expected rates of compensation increase. Changes in these assumptions are primarily influenced by factors outside our control. The discount rate is based on a hypothetical yield curve represented by a series of annualized individual discount rates. Each bond issue underlying the hypothetical yield curve required an average rating of double-A, when averaging all available ratings by Moody's Investor Service Inc., S&P Global Ratings and Fitch, Inc. The expected long-term rate of return on plan assets is based on the weighted averages of the expected long-term rates of return for each asset class of investments held in our plans as determined using historical data and the assumption that capital markets are informationally efficient. The expected rate of compensation increase represents average long-term salary increases.

These assumptions can have an effect on the amounts reported in our consolidated financial statements. A 0.25% change in the specified assumptions would have the following effects (thousands of dollars):

	Pension Benefits	Other Postretirement Benefits
Increase in benefit obligation as of December 31, 2019 from:		
Discount rate decrease	\$ 5,800	\$ 500
Compensation rate increase	\$ 1,500	n/a
Increase in net periodic benefit cost for the year ending December 31, 2020 resulting from:		
Discount rate decrease	\$ 300	\$ 100
Expected long-term rate of returns on plan assets decrease	\$ 400	n/a
Compensation rate increase	\$ 400	n/a

Please refer to Note 23 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for further discussion of our pension and other postretirement benefit obligations.

Environmental Liabilities

Environmental remediation costs are expensed and an associated accrual is established when site restoration and environmental remediation and cleanup obligations are either known or considered probable and can be reasonably estimated. These environmental obligations are based on estimates of probable undiscounted future costs using currently available technology and applying current regulations, as well as our own internal environmental policies. The environmental liabilities have not been reduced by possible recoveries from third parties. Environmental costs include initial site surveys, costs for remediation and restoration and ongoing monitoring costs, as well as fines, damages and other costs, when estimable. Adjustments to initial estimates are recorded, from time to time, to reflect changing circumstances and estimates based upon additional information developed in subsequent periods. Environmental liabilities are difficult to assess and estimate due to unknown factors, such as the timing and extent of remediation, the determination of our liability in proportion to other parties, improvements in cleanup technologies and the extent to which environmental laws and regulations may change in the future. We believe that we have adequately accrued for our environmental exposures.

Contingencies

We accrue for costs relating to litigation, claims and other contingent matters when such liabilities become probable and reasonably estimable. Such estimates may be based on advice from third parties or on management's judgment, as appropriate. Due to the inherent uncertainty of litigation, actual amounts paid may differ from amounts estimated, and such differences will be charged to income in the period when final determination is made.

NEW ACCOUNTING PRONOUNCEMENTS

Please refer to Note 3 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a discussion of new accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We manage our exposure to changing interest rates principally through the use of a combination of fixed-rate debt and variable-rate debt. In addition, we utilize forward-starting interest rate swap agreements to lock in the rate on the interest payments related to forecasted debt issuances. Borrowings under our variable-rate debt expose us to increases in interest rates. Since the operations of our fuels marketing segment expose us to commodity price risk, we use derivative instruments to attempt to mitigate the effects of commodity price fluctuations. Derivative financial instruments associated with commodity price risk were not material for any period presented.

Please refer to Notes 2 and 18 of the Notes to Consolidated Financial Statements in Item 8. "Financial Statements and Supplementary Data" for a more detailed discussion of our interest rate swaps. The following tables present principal cash flows and related weighted-average interest rates by expected maturity dates for our long-term debt, excluding finance leases:

	 December 31, 2019													
					Expected M	latur	ity Dates							
	2020		2021		2022		2023		2024		There- after		Total	Fair Value
						(Tho	ousands of Dol	llars, I	Except Interes	t Rate	es)			
Long-term Debt:														
Fixed-rate	\$ 450,000	\$	300,000	\$	250,000	\$	_	\$	_	\$	1,050,000	\$	2,050,000	\$ 2,123,964
Weighted-average														
rate	4.8%		6.8%		4.8%		_		_		5.8%		5.6%	_
Variable-rate	\$ _	\$	537,200	\$	_	\$	_	\$	_	\$	767,940	\$	1,305,140	\$ 1,318,037
Weighted-average rate	_		3.7%		_		_		_		5.3%		4.7%	_

		December 31, 2018														
						Expected I	/Iatu	rity Dates								
	2019 2020			2021	2021 2022			2023		There- after		Total	Fair Value			
	· ·	(Thousands of Dollars, Except Interest Rates)														
Long-term Debt:																
Fixed-rate	\$	_	\$	450,000	\$	300,000	\$	250,000	\$	_	\$	550,000	\$	1,550,000	\$	1,499,920
Weighted-average rate		_		4.8%		6.8%		4.8%		_		5.6%		5.5%		_
Variable-rate	\$	_	\$	806,800	\$	_	\$	_	\$	_	\$	767,940	\$	1,574,740	\$	1,556,784
Weighted-average rate		_		4.4%		_		_		_		5.6%		5.0%		_

The following table presents information regarding our forward-starting interest rate swap agreements:

	Notional Amour	nt as of Dec	cember 31,			 Fair Value as	of Decemb	er 31,	
-	2019		2018	Period of Hedge	Weighted-Average Fixed Rate	 2019		2018	
	(Thousar	nds of Dolla	urs)			(Thousand	s of Dollar	:s)	
\$	250,000	\$	250,000	09/2020 - 09/2030	2.8%	\$ (19,169)	\$		(124)

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our management assessed the effectiveness of NuStar Energy L.P.'s internal control over financial reporting as of December 31, 2019. In its evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013*). Based on this assessment, management believes that, as of December 31, 2019, our internal control over financial reporting was effective based on those criteria.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The effectiveness of internal control over financial reporting as of December 31, 2019 has been audited by KPMG LLP, the independent registered public accounting firm who audited our consolidated financial statements included in this Form 10-K. KPMG LLP's attestation on the effectiveness of our internal control over financial reporting appears on page 62.

Report of Independent Registered Public Accounting Firm

The Board of Directors of NuStar GP, LLC and Unitholders of NuStar Energy L.P.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of NuStar Energy L.P. and subsidiaries (the Partnership) as of December 31, 2019 and 2018, the related consolidated statements of (loss) income, comprehensive (loss) income, partners' equity and mezzanine equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Partnership as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Partnership's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 27, 2020 expressed an unqualified opinion on the effectiveness of the Partnership's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Partnership's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of the Identification of Triggering Events Related to the Recoverability of Certain Long-Lived Assets or Asset Groups
As discussed in Note 2, the Partnership tests long-lived assets, including property, plant and equipment, for impairment whenever triggering events indicate that the carrying amount may not be recoverable. The Partnership evaluates recoverability using undiscounted estimated net cash flows generated by the related asset or asset group considering the intended use of the asset. The carrying value of the Partnership's long-lived assets or asset groups are generally supported by revenue generating contracts or historically consistent revenue generating activities, making the triggering event assessment not complex. The balance of property, plant and equipment, net as of December 31, 2019 was \$4,119 million, or 66.6% of total assets.

We identified the assessment of the identification of triggering events related to the recoverability of certain long-lived assets or asset groups as a critical audit matter. There were certain long-lived assets or asset groups that were not supported by existing revenue-generating contracts or activities resulting in negative cash flows. Assessment of the identification of triggering events for these assets or asset groups required challenging auditor judgment as the assessment included subjective qualitative considerations, such as evaluating alternative customers, alternative uses for the asset or asset group or the Partnership's intent for the asset or asset group.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Partnership's triggering event assessment, including controls over the identification of long-lived asset groups that would be at greater risk for a triggering event and evaluation of the qualitative considerations in assessing the identification of a triggering event. We examined the Partnership's analysis of the long-lived assets and asset groups identified to be evaluated for a potential triggering event and assessed the factors considered in determining the identification of a triggering event. We evaluated the Partnership's responses to the factors considered, including alternate customers, alternative uses for the assets or asset group, and the Partnership's intent for the assets or asset group by evaluating internal and external documentation. Documentation evaluated included internal presentations, draft customer contracts, publicly available market data, and communications between the Partnership and potential customers.

/s/ KPMG LLP

We have served as the Partnership's auditor since 2004.

San Antonio, Texas February 27, 2020

Report of Independent Registered Public Accounting Firm

The Board of Directors of NuStar GP, LLC and Unitholders of NuStar Energy L.P.:

Opinion on Internal Control Over Financial Reporting

We have audited NuStar Energy L.P. and subsidiaries' (the Partnership) internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Partnership maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Partnership as of December 31, 2019 and 2018, the related consolidated statements of (loss) income, comprehensive (loss) income, partners' equity and mezzanine equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), and our report dated February 27, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Partnership's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Partnership's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

San Antonio, Texas February 27, 2020

NUSTAR ENERGY L.P. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS (Thousands of Dollars, Except Unit Data)

		December 31,				
		2019		2018		
Assets						
Current assets:						
Cash and cash equivalents	\$	16,192	\$	11,529		
Accounts receivable, net of allowance for doubtful accounts of \$72 and \$9,412 as of December 31, 2019 and 2018, respectively		152,530		110,417		
Inventories		12,393		8,434		
Prepaid and other current assets		21,933		17,374		
Assets held for sale		_		599,347		
Total current assets		203,048		747,101		
Property, plant and equipment, at cost		6,187,144		5,627,805		
Accumulated depreciation and amortization		(2,068,165)		(1,853,003)		
Property, plant and equipment, net		4,118,979		3,774,802		
Intangible assets, net		681,632		733,056		
Goodwill		1,005,853		1,005,853		
Other long-term assets, net		176,480		88,328		
Total assets	\$	6,185,992	\$	6,349,140		
Liabilities, Mezzanine Equity and Partners' Equity						
Current liabilities:						
Accounts payable	\$	109,834	\$	103,122		
Short-term debt and current portion of finance leases	<u> </u>	10,046	Ψ	18,500		
Current portion of long-term debt		452,367				
Accrued interest payable		37,925		36,293		
Accrued liabilities		104,285		74,418		
Taxes other than income tax		12,781		16,823		
Income tax payable		4,325		4,445		
Liabilities held for sale		_		69,834		
Total current liabilities		731,563		323,435		
Long-term debt, less current portion		2,934,918		3,111,996		
Deferred income tax liability		12,427		12,428		
Other long-term liabilities		148,939		79,558		
Total liabilities		3,827,847		3,527,417		
Total Intellities		3,027,047		3,327,417		
Commitments and contingencies (Note 16)						
Series D preferred limited partners (23,246,650 preferred units outstanding as of		-04.00-		- 62 000		
December 31, 2019 and 2018) (Note 19)		581,935		563,992		
Partners' equity (Note 20):						
Series A (9,060,000 units outstanding as of December 31, 2019 and 2018)		218,307		218,307		
Series B (15,400,000 units outstanding as of December 31, 2019 and 2018)		371,476		371,476		
Series C (6,900,000 units outstanding as of December 31, 2019 and 2018)		166,518		166,518		
Common limited partners (108,527,806 and 107,225,156 common units outstanding as of December 31, 2019 and 2018, respectively)		1,087,805				
Accumulated other comprehensive loss				1,556,308		
Total partners' equity		(67,896)		(54,878)		
	φ.	1,776,210	¢	2,257,731		
Total liabilities, mezzanine equity and partners' equity	\$	6,185,992	\$	6,349,140		

NUSTAR ENERGY L.P. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF (LOSS) INCOME (Thousands of Dollars, Except Unit and Per Unit Data)

	Year Ended December 31,						
		2019		2018		2017	
Revenues:							
Service revenues	\$	1,148,167	\$	1,045,130	\$	955,446	
Product sales		349,854		475,132	_	489,326	
Total revenues		1,498,021		1,520,262		1,444,772	
Costs and expenses:	' <u></u>						
Costs associated with service revenues:							
Operating expenses (excluding depreciation and amortization expense)		404,682		378,962		332,723	
Depreciation and amortization expense		264,564		247,288		219,757	
Total costs associated with service revenues		669,246		626,250		552,480	
Cost of product sales		321,644		449,613		485,791	
General and administrative expenses (excluding depreciation and amortization expense)		107,855		100,067		107,556	
Other depreciation and amortization expense		8,360		8,604		8,435	
Total costs and expenses		1,107,105		1,184,534		1,154,262	
Operating income		390,916		335,728		290,510	
Interest expense, net		(183,070)		(184,398)		(171,774)	
Other income (expense), net		3,742		5,202		(68)	
Income from continuing operations before income tax expense		211,588		156,532		118,668	
Income tax expense		4,754		10,157		7,773	
Income from continuing operations		206,834		146,375		110,895	
(Loss) income from discontinued operations, net of tax		(312,527)		59,419		37,069	
Net (loss) income	\$	(105,693)	\$	205,794	\$	147,964	
Basic and diluted net income (loss) per common unit:							
Continuing operations	\$	0.60	\$	(3.34)	\$	0.23	
Discontinued operations		(2.90)		0.57		0.41	
Total (Note 21)	\$	(2.30)	\$	(2.77)	\$	0.64	
Basic weighted-average common units outstanding		107,789,030		99,490,495		88,825,964	
Diluted weighted-average common units outstanding		107,854,699		99,531,172		88,825,964	

NUSTAR ENERGY L.P. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME (Thousands of Dollars)

	Year Ended December 31,							
		2019		2018		2017		
Net (loss) income	\$	(105,693)	\$	205,794	\$	147,964		
Other comprehensive income (loss):								
Foreign currency translation adjustment		3,527		4,304		17,466		
Net (loss) gain on pension and other postretirement benefit adjustments, net of income tax benefit (expense) of \$14, (\$94) and \$184		(1,314)		2,334		(6,170)		
Net (loss) gain on cash flow hedges		(15,231)		23,411		(2,046)		
Total other comprehensive (loss) income		(13,018)		30,049		9,250		
Comprehensive (loss) income	\$	(118,711)	\$	235,843	\$	157,214		

NUSTAR ENERGY L.P. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS (Thousands of Dollars)

		1,			
		2019	2018		2017
Cash Flows from Operating Activities:					
Net (loss) income	\$	(105,693)	\$ 205,794	\$	147,964
Adjustments to reconcile net (loss) income to net cash provided by operating activities:					
Depreciation and amortization expense		281,460	297,874		264,232
Amortization of unit-based compensation		14,386	12,004		8,132
Amortization of debt related items		5,209	7,388		6,147
Loss from sale or disposition of assets		3,499	41,272		4,984
Gain from insurance recoveries		_	(78,756)		_
Asset and goodwill impairment losses		336,838	_		_
Deferred income tax (benefit) expense		(476)	2,043		6
Changes in current assets and current liabilities (Note 22)		(44,765)	78,262		(26,493)
Decrease (increase) in other long-term assets		22,020	(3,029)		943
(Decrease) increase in other long-term liabilities		(1,407)	(17,832)		2,414
Other, net		(2,314)	(813)		(1,530)
Net cash provided by operating activities		508,757	544,207		406,799
Cash Flows from Investing Activities:		·	 ·		<u> </u>
Capital expenditures		(533,568)	(457,452)		(384,638)
Change in accounts payable related to capital expenditures		(12,731)	(7,683)		36,903
Acquisitions		_	(37,502)		(1,461,719)
Proceeds from Axeon term loan		_	_		110,000
Proceeds from insurance recoveries		_	78,419		977
Proceeds from sale or disposition of assets		228,152	270,440		2,036
Other, net		(1,100)			
Net cash used in investing activities		(319,247)	 (153,778)		(1,696,441)
Cash Flows from Financing Activities:		(515,247)	 (155,770)		(1,030,441)
Proceeds from long-term debt borrowings		659,300	1,254,153		1,465,767
Proceeds from short-term debt borrowings		307,500	618,500		1,051,000
Proceeds from note offering, net of issuance costs		491,580	010,500		543,333
Long-term debt repayments		(928,900)	(1,746,776)		(1,417,539)
Short-term debt repayments		(320,500)	(635,000)		(1,070,000)
		(320,300)	` ' /		(1,070,000)
Proceeds from issuance of Series D preferred units Payment of issuance costs for Series D preferred units		_	590,000		_
		_	(34,203)		E20 F60
Proceeds from issuance of other preferred units, net of issuance costs Proceeds from issuance of common units, net of issuance costs		15 000	10,000		538,560
		15,000	•		643,878
Contributions from general partner		(121 (02)	204		13,737
Distributions to preferred unitholders		(121,693)	(90,670)		(38,833)
Distributions to common unitholders and general partner		(258,354)	(300,777)		(446,306)
Cash consideration for Merger (Note 4)		_	(67,795)		_
Proceeds from termination of interest rate swaps		(0.554)	8,048		(2.020)
Payment of tax withholding for unit-based compensation		(8,771)	(2,083)		(2,838)
(Decrease) increase in cash book overdrafts		(3,752)	2,935		1,736
Other, net		(9,060)	 (6,403)		(6,223)
Net cash (used in) provided by financing activities		(177,650)	 (399,867)		1,276,272
Effect of foreign exchange rate changes on cash		(524)	 (1,210)		1,720
Net increase (decrease) in cash, cash equivalents and restricted cash		11,336	(10,648)		(11,650)
Cash, cash equivalents and restricted cash as of the beginning of the period		13,644	 24,292		35,942
Cash, cash equivalents and restricted cash as of the end of the period	\$	24,980	\$ 13,644	\$	24,292

NUSTAR ENERGY L.P. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF PARTNERS' EQUITY AND MEZZANINE EQUITY (Thousands of Dollars, Except Per Unit Data)

	Li	mited I	Partners							Mezzanine Equity	
	Preferred		Common	General Partner		Accumulated Other Comprehensive Loss		tal Partners' Equity (Note 20)	Lin	Series D Preferred nited Partners (Note 19)	Total
Balance as of January 1, 2017	\$ 218,40	0 :	\$ 1,455,642	\$ 31,752	\$	(94,177)	\$	1,611,617	\$	_	\$ 1,611,617
Net income	40,44	8	60,610	46,906		_		147,964		_	147,964
Other comprehensive income	-	-	_	_		9,250		9,250		_	9,250
Distributions to partners:											
Series A, B and C preferred	(40,44	8)	_	_		_		(40,448)		_	(40,448)
Common (\$4.38 per unit) and general partner	_	_	(391,737)	(54,569)		_		(446,306)		_	(446,306)
Issuance of common units, including contribution			6.42.050	40.505				a== .==			a== .==
from general partner		_	643,878	13,597		_		657,475		_	657,475
Issuance of preferred units	538,56	U	_	_		_		538,560		_	538,560
Unit-based compensation	_	_	2,516	140		_		2,656		_	2,656
Other	(35	<u> </u>	(322)	 				(679)			 (679)
Balance as of December 31, 2017	756,60		1,770,587	 37,826		(84,927)	_	2,480,089	_		 2,480,089
Net income	64,09	1	110,788	2,466		_		177,345		28,449	205,794
Other comprehensive income	_	_	_	_		30,049		30,049		_	30,049
Distributions to partners:											
Series A, B and C preferred	(64,09	1)	_	_		_		(64,091)		_	(64,091)
Common (\$2.895 per unit) and general partner	_	_	(286,398)	(14,379)		_		(300,777)		_	(300,777)
Series D preferred	_	_	_	_		_		_		(28,449)	(28,449)
Issuance of common units, including contribution from general partner	_	_	10,000	204		_		10,204		_	10,204
Issuance of Series D preferred units	_	_	_	_		_				555,797	555,797
Unit-based compensation	_	_	7,925	_		_		7,925			7,925
Adjustments related to the Merger (refer to Note 4 for discussion)	_		(41,973)	(25,999)		_		(67,972)		_	(67,972)
Series D Preferred Unit accretion	_	_	(8,195)	_		_		(8,195)		8,195	_
Other	(30	2)	(6,426)	(118)		_		(6,846)		_	(6,846)
Balance as of December 31, 2018	756,30	1	1,556,308	 	_	(54,878)		2,257,731		563,992	2,821,723
Net income (loss)	64,13	4	(227,386)	 	_			(163,252)		57,559	(105,693)
Other comprehensive loss	-	_	_	_		(13,018)		(13,018)		_	(13,018)
Distributions to partners:											
Series A, B and C preferred	(64,13	4)	_	_		_		(64,134)		_	(64,134)
Common (\$2.40 per unit)	_	_	(258,354)	_		_		(258,354)		_	(258,354)
Series D preferred	_	_	_	_		_		_		(57,559)	(57,559)
Issuance of common units	_	_	15,000	_		_		15,000		_	15,000
Unit-based compensation	_		20,766	_		_		20,766		_	20,766
Series D Preferred Unit accretion	_	_	(18,085)	_		_		(18,085)		18,085	_
Other	_		(444)	_		_		(444)		(142)	(586)
Balance as of December 31, 2019	\$ 756,30	1	\$ 1,087,805	\$ _	\$	(67,896)	\$	1,776,210	\$	581,935	\$ 2,358,145

NUSTAR ENERGY L.P. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS Years Ended December 31, 2019, 2018 and 2017

1. ORGANIZATION AND OPERATIONS

Organization

NuStar Energy L.P. (NYSE: NS) is engaged in the transportation of petroleum products and anhydrous ammonia, and the terminalling, storage and marketing of petroleum products. Unless otherwise indicated, the terms "NuStar Energy," "NS," "the Partnership," "we," "our" and "us" are used in this report to refer to NuStar Energy L.P., to one or more of our consolidated subsidiaries or to all of them taken as a whole. Our business is managed under the direction of the board of directors of NuStar GP, LLC, the general partner of our general partner, Riverwalk Logistics, L.P., both of which are wholly owned subsidiaries of NuStar GP Holdings, LLC (Holdings), which became a wholly owned subsidiary of ours on July 20, 2018.

Recent Developments

Sale of St. Eustatius Operations. On July 29, 2019, we sold our St. Eustatius terminal and bunkering operations (the St. Eustatius Operations) for net proceeds of approximately \$230.0 million (the St. Eustatius Disposition). In 2019, we recorded long-lived asset and goodwill impairment charges totaling \$336.8 million related to the St. Eustatius Operations in "(Loss) income from discontinued operations, net of tax" on our consolidated statement of loss. In the second quarter of 2019, we determined the St. Eustatius Operations and the European operations, as discussed below, met the requirements to be reported as discontinued operations, and as a result, we reclassified certain balances to assets and liabilities held for sale and certain revenues and expenses to discontinued operations for all applicable periods presented. Please refer to Note 5 for additional discussion.

Selby Terminal Fire. On October 15, 2019, our terminal facility in Selby, California experienced a fire that destroyed two storage tanks and temporarily shut down the terminal. The property damage was isolated, and in the fourth quarter, we incurred losses of \$5.4 million, which represent the aggregate amount of our deductibles under various insurance policies. We believe we have adequate insurance to offset additional costs in excess of the insurance deductibles.

Other Events

Sale of European Operations. On November 30, 2018, we sold our European operations for approximately \$270.0 million (the European Disposition). The operations sold included six liquids storage terminals in the United Kingdom and one facility in Amsterdam with total storage capacity of approximately 9.5 million barrels (the European Operations). We recognized a non-cash loss of \$43.4 million related to the sale in "(Loss) income from discontinued operations, net of tax" on our consolidated statement of income for the year ended December 31, 2018. Please refer to Note 5 for further discussion.

Merger. On July 20, 2018, we completed the merger of Holdings with a subsidiary of NS. Under the terms of the merger agreement, Holdings unitholders received 0.55 of a common unit representing a limited partner interest in NS in exchange for each Holdings unit owned at the effective time of the merger. Please refer to Note 4 for further discussion of the merger.

Hurricane Activity. In the third quarter of 2017, several of our facilities were affected by the hurricanes in the Caribbean and Gulf of Mexico, including the St. Eustatius terminal, which experienced the most damage and was temporarily shut down. In 2017, we recorded a \$5.0 million loss for property damage at the terminal, which represents the amount of our property deductible under our insurance policy, and we received insurance proceeds of \$12.5 million, of which \$3.8 million was for business interruption. In 2018, we received \$87.5 million of insurance proceeds in settlement of our property damage claim for the St. Eustatius terminal, of which \$9.1 million related to business interruption. Proceeds from business interruption insurance are included in "Cash flows from operating activities" in the consolidated statements of cash flows. We recorded a \$78.8 million gain in the consolidated statement of income in 2018 for the amount by which the insurance proceeds exceeded our expenses incurred during the period. The insurance proceeds related to business interruption and the gain are included in "(Loss) income from discontinued operations, net of tax" in the consolidated statements of (loss) income.

Navigator Acquisition and Financing Transactions. On May 4, 2017, we acquired Navigator Energy Services, LLC for approximately \$1.5 billion (the Navigator Acquisition). In order to fund the purchase price, we issued 14,375,000 common units for net proceeds of \$657.5 million, issued \$550.0 million of 5.625% senior notes for net proceeds of \$543.3 million and issued 15,400,000 of our 7.625% Series B Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (Series B Preferred Units) for net proceeds of \$371.8 million. Please refer to Notes 6, 14 and 20 for further discussion.

Axeon Term Loan. On February 22, 2017, we settled and terminated the \$190.0 million term loan to Axeon Specialty Products, LLC (the Axeon Term Loan), pursuant to which we also provided credit support, such as guarantees, letters of credit and cash

collateral, as applicable, of up to \$125.0 million to Axeon Specialty Products, LLC (Axeon). We received \$110.0 million in settlement of the Axeon Term Loan, and our obligation to provide ongoing credit support to Axeon ceased.

Operations

We conduct our operations through our subsidiaries, primarily NuStar Logistics, L.P. (NuStar Logistics) and NuStar Pipeline Operating Partnership L.P. (NuPOP). We have three business segments: pipeline, storage and fuels marketing.

Pipeline. We own 3,205 miles of refined product pipelines and 2,155 miles of crude oil pipelines, as well as approximately 5.2 million barrels of storage capacity, which comprise our Central West System. In addition, we own 2,600 miles of refined product pipelines, consisting of the East and North Pipelines, and a 2,000-mile ammonia pipeline, which comprise our Central East System. The East and North Pipelines have storage capacity of approximately 7.4 million barrels. We charge tariffs on a per barrel basis for transporting refined products, crude oil and other feedstocks in our refined product and crude oil pipelines and on a per ton basis for transporting anhydrous ammonia in the Ammonia Pipeline.

Storage. We own terminal and storage facilities in the United States, Canada and Mexico, with approximately 61.3 million barrels of storage capacity. Our terminal and storage facilities provide storage, handling and other services on a fee basis for petroleum products, crude oil, specialty chemicals and other liquids.

Fuels Marketing. Prior to the third quarter of 2017, our fuels marketing operations involved the purchase of crude oil, fuel oil, bunker fuel, fuel oil blending components and other refined products for resale. We ceased marketing crude oil in the second quarter of 2017 and exited our heavy fuels trading operations in the third quarter of 2017. These actions were in line with our goal of reducing our exposure to commodity margins, and instead focusing on our core, feebased pipeline and storage segments. The remaining operations in our fuels marketing segment include our bunkering operations in the Gulf Coast, as well as certain of our blending operations associated with our Central East System.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Consolidation

The accompanying consolidated financial statements represent the consolidated operations of the Partnership and our subsidiaries. Inter-partnership balances and transactions have been eliminated in consolidation. The operations of certain pipelines and terminals in which we own an undivided interest are proportionately consolidated in the accompanying consolidated financial statements.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. On an ongoing basis, management reviews its estimates based on currently available information. Management may revise estimates due to changes in facts and circumstances.

Cash and Cash Equivalents

Cash equivalents are all highly liquid investments with an original maturity of three months or less when acquired.

Accounts Receivable

Trade receivables are carried at original invoice amount. We extend credit terms to certain customers after review of various credit indicators, including the customer's credit rating. Outstanding customer receivable balances are regularly reviewed for possible non-payment indicators and allowances for doubtful accounts are recorded based upon management's estimate of collectability at the time of its review.

Inventories

Inventories consist of petroleum products, materials and supplies. Inventories, except those associated with a qualifying fair value hedge, are valued at the lower of cost or net realizable value. Cost is determined using the weighted-average cost method. Our inventory, other than materials and supplies, consists of one end-product category, petroleum products, which we include in the fuels marketing segment. Accordingly, we determine lower of cost or net realizable value adjustments on an aggregate basis. Inventories associated with qualifying fair value hedges are valued at current market prices. Materials and supplies are valued at the lower of average cost or net realizable value.

Restricted Cash

As of December 31, 2019, we have restricted cash representing legally restricted funds that are unavailable for general use totaling \$8.8 million, which is included in "Other long-term assets, net" on the consolidated balance sheet.

Property, Plant and Equipment

We record additions to property, plant and equipment, including reliability and strategic capital expenditures, at cost. Repair and maintenance costs associated with existing assets that are minor in nature and do not extend the useful life of existing assets are charged to operating expenses as incurred. Depreciation of property, plant and equipment is recorded on a straight-line basis over the estimated useful lives of the related assets. When property or equipment is retired, sold or otherwise disposed of, the difference between the carrying value and the net proceeds is recognized in "Other income (expense), net" or "(Loss) income from discontinued operations, net of tax" in the consolidated statements of (loss) income in the year of disposition.

We capitalize overhead costs and interest costs incurred on funds used to construct property, plant and equipment while the asset is under construction. The overhead costs and capitalized interest are recorded as part of the asset to which they relate and are amortized over the asset's estimated useful life as a component of depreciation expense.

Goodwill

We assess goodwill for impairment annually on October 1, or more frequently if events or changes in circumstances indicate it might be impaired. We have the option to first assess qualitative factors to determine whether it is necessary to perform a quantitative goodwill impairment test. We performed a qualitative assessment as of October 1, 2019. Our qualitative assessment included, among other things, industry and market considerations, overall financial performance, other entity-specific events and events affecting individual reporting units. After assessing the totality of events or circumstances for each reporting unit, we determined that the carrying value did not exceed its fair value and that goodwill was not impaired.

Our reporting units to which goodwill has been allocated consist of the following as of October 1, 2019:

- · crude oil pipelines;
- refined product pipelines; and
- terminals, excluding our Point Tupper facility and our refinery crude storage tanks.

As discussed in Note 5, we recognized a goodwill impairment charge in the first quarter of 2019 for the goodwill associated with the Statia Bunkering reporting unit, which consisted of our bunkering operations at the St. Eustatius terminal facility. We adopted amended accounting guidance in the first quarter of 2019 to measure goodwill impairment as the excess of each reporting unit's carrying value over its fair value, not to exceed the carrying amount of goodwill for that reporting unit. See Note 3 for a discussion of new accounting pronouncements. The carrying value of each reporting unit equals the total identified assets (including goodwill) less the sum of each reporting unit's identified liabilities. We used reasonable and supportable methods to assign the assets and liabilities to the appropriate reporting units in a consistent manner.

We recognize an impairment of goodwill if the carrying value of goodwill exceeds its estimated fair value. In order to estimate the fair value of goodwill, management must make certain estimates and assumptions that affect the total fair value of the reporting unit including, among other things, an assessment of market conditions, projected cash flows, discount rates and growth rates. Management's estimates of projected cash flows related to the reporting unit include, but are not limited to, future earnings of the reporting unit, assumptions about the use or disposition of the asset, estimated remaining life of the asset, and future expenditures necessary to maintain the asset's existing service potential. We calculate the estimated fair value of each of our reporting units using a weighted-average of values calculated using an income approach and a market approach. The income approach involves estimating the fair value of each reporting unit by discounting its estimated future cash flows using a discount rate that would be consistent with a market participant's assumption. The market approach bases the fair value measurement on information obtained from observed stock prices of public companies and recent merger and acquisition transaction data of comparable entities. We performed a quantitative goodwill impairment test as of October 1, 2018 and determined that no impairment charges existed on that date.

Impairment of Long-Lived Assets

We review long-lived assets, including property, plant and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We evaluate recoverability using undiscounted estimated net cash flows generated by the related asset or asset group. If the results of that evaluation indicate that the undiscounted cash flows are less than the carrying amount of the asset (i.e., the asset is not recoverable) we perform an

impairment analysis. If our intent is to hold the asset for continued use, we determine the amount of impairment as the amount by which the net carrying value exceeds its fair value. If our intent is to sell the asset, and the criteria required to classify an asset as held for sale are met, we determine the amount of impairment as the amount by which the net carrying amount exceeds its fair value less costs to sell. As discussed in Note 5, we recognized long-lived asset impairment charges of \$305.7 million in 2019 related to the St. Eustatius terminal facility. We believe that the carrying amounts of our long-lived assets as of December 31, 2019 are recoverable.

Income Taxes

We are a limited partnership and generally are not subject to federal or state income taxes. Accordingly, our taxable income or loss, which may vary substantially from income or loss reported for financial reporting purposes, is generally included in the federal and state income tax returns of our partners. For transfers of publicly held common units subsequent to our initial public offering, we have made an election permitted by Section 754 of the Internal Revenue Code (the Code) to adjust the common unit purchaser's tax basis in our underlying assets to reflect the purchase price of the units. This results in an allocation of taxable income and expenses to the purchaser of the common units, including depreciation deductions and gains and losses on sales of assets, based upon the new unitholder's purchase price for the common units.

We conduct certain of our operations through taxable wholly owned corporate subsidiaries. We account for income taxes related to our taxable subsidiaries using the asset and liability method. Under this method, we recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. We measure deferred taxes using enacted tax rates expected to apply to taxable income in the year those temporary differences are expected to be recovered or settled.

We recognize a tax position if it is more likely than not that the tax position will be sustained, based on the technical merits of the position, upon examination. We record uncertain tax positions in the financial statements at the largest amount of benefit that is more likely than not to be realized. We had no unrecognized tax benefits as of December 31, 2019 and 2018.

NuStar Energy and certain of its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. For U.S. federal and state purposes, as well as for our major non-U.S. jurisdictions, tax years subject to examination are 2016 through 2018, according to standard statute of limitations.

Asset Retirement Obligations

We record a liability for asset retirement obligations at the fair value of the estimated costs to retire a tangible long-lived asset at the time we incur that liability, which is generally when the asset is purchased, constructed or leased, when we have a legal obligation to incur costs to retire the asset and when a reasonable estimate of the fair value of the obligation can be made. If a reasonable estimate cannot be made at the time the liability is incurred, we record the liability when sufficient information is available to estimate the fair value.

We have asset retirement obligations with respect to certain of our assets due to various legal obligations to clean and/or dispose of those assets at the time they are retired. However, these assets can be used for an extended and indeterminate period of time as long as they are properly maintained and/or upgraded. It is our practice and current intent to maintain our assets and continue making improvements to those assets based on technological advances. As a result, we believe that our assets have indeterminate lives for purposes of estimating asset retirement obligations because dates or ranges of dates upon which we would retire these assets cannot reasonably be estimated at this time. When a date or range of dates can reasonably be estimated for the retirement of any asset, we estimate the costs of performing the retirement activities and record a liability for the fair value of these costs.

We also have legal obligations in the form of leases and right-of-way agreements, which require us to remove certain of our assets upon termination of the agreement. However, these lease or right-of-way agreements generally contain automatic renewal provisions that extend our rights indefinitely or we have other legal means available to extend our rights. We have recorded liabilities of \$0.2 million as of December 31, 2019 and 2018, which are included in "Other long-term liabilities" in the consolidated balance sheets, for conditional asset retirement obligations related to the retirement of terminal assets with lease and right-of-way agreements.

Environmental Remediation Costs

Environmental remediation costs are expensed and an associated accrual established when site restoration and environmental remediation and cleanup obligations are either known or considered probable and can be reasonably estimated. These environmental obligations are based on estimates of probable undiscounted future costs using currently available technology and applying current regulations, as well as our own internal environmental policies. The environmental liabilities have not been reduced by possible recoveries from third parties. Environmental costs include initial site surveys, costs for remediation and restoration and ongoing monitoring costs, as well as fines, damages and other costs, when estimable. Adjustments to initial estimates are recorded, from time to time, to reflect changing circumstances and estimates based upon additional information developed in subsequent periods.

Revenue Recognition

Revenue-Generating Activities. Revenues for the pipeline segment are derived from interstate and intrastate pipeline transportation of refined products, crude oil and anhydrous ammonia and the applicable pipeline tariff.

Revenues for the storage segment include fees for tank storage agreements, whereby a customer agrees to pay for a certain amount of storage in a tank over a period of time (storage terminal revenues), and throughput agreements, whereby a customer pays a fee per barrel for volumes moving through our terminals (throughput terminal revenues). Our terminals also provide blending, additive injections, handling and filtering services for which we charge additional fees, and certain of our facilities charge fees to provide marine services such as pilotage, tug assistance, line handling, launch service, emergency response services and other ship services (all of which are considered optional services).

Revenues for the fuels marketing segment are derived from the sale of petroleum products.

Within our pipeline and storage segments, we provide services on uninterruptible and interruptible bases. Uninterruptible services within our pipeline segment typically result from contracts that contain take-or-pay minimum volume commitments (MVCs) from the customer. Contracts with MVCs obligate the customer to pay for that minimum amount. If a customer fails to meet its MVC for the applicable service period, the customer is obligated to pay a deficiency fee based upon the shortfall between the actual volumes transported or stored and the MVC for that service period (deficiency payments). In exchange, those contracts with MVCs obligate us to stand ready to transport volumes up to the customer's MVC.

Within our storage segment, uninterruptible services arise from contracts containing a fixed monthly fee for the portion of storage capacity reserved by the customer. These contracts require that the customer pay the fixed monthly fee, regardless of whether or not it uses our storage facility (i.e., take-or-pay obligation), and that we stand ready to store that volume. Interruptible services within our pipeline and storage segments are generally provided when and to the extent we determine the requested capacity is available. The customer typically pays a per-unit rate for the actual quantities of services it receives.

Adoption of ASC Topic 606. On January 1, 2018, we adopted Accounting Standards Codification Topic 606, "Revenue from Contracts with Customers" (ASC Topic 606) using the modified retrospective method and applied ASC Topic 606 to all revenue contracts with customers. After identifying a contract with a customer, ASC Topic 606 requires us to (i) identify the performance obligations in the contract; (ii) determine the transaction price; (iii) allocate the transaction price to the performance obligations; and (iv) recognize revenue when or as we satisfy a performance obligation. For the majority of our contracts, we recognize revenue in the amount to which we have a right to invoice. Generally, payment terms do not exceed 30 days.

Performance Obligations. The majority of our contracts contain a single performance obligation. For our pipeline segment, the single performance obligation encompasses multiple activities necessary to deliver our customers' products to their destinations. Typically, we satisfy this performance obligation over time as the product volume is delivered in or out of the pipelines. Similarly, the performance obligation for our storage segment consists of multiple activities necessary to receive, store and deliver our customers' products. We typically satisfy this performance obligation over time as the product volume is delivered in or out of the tanks (for throughput terminal revenues) or with the passage of time (for storage terminal revenues). Certain of our pipeline segment customer contracts include an incentive pricing structure, which provides a discounted rate for the remainder of the contract once the customer exceeds a cumulative volume. The ability to receive discounted future services represents a material right to the customer, which results in a second performance obligation in those contracts.

Product sales contracts associated with our fuels marketing segment generally include a single performance obligation to deliver specified volumes of a commodity, which we satisfy at a point in time, when the product is delivered and the customer obtains control of the commodity.

Optional services do not provide a material right to the customer, and are not considered a separate performance obligation in the contract. If and when a customer elects an optional service, it becomes part of the existing performance obligation.

Transaction Price. For uninterruptible services, we determine the transaction price at contract inception based on the guaranteed minimum amount of revenue over the term of the contract. For interruptible services and optional services, we determine the transaction price based on our right to invoice the customer for the value of services provided to the customer for the applicable period.

In certain instances, our customers reimburse us for capital projects, in arrangements referred to as contributions in aid of construction, or CIAC. Typically, in these instances, we receive upfront payments for future services, which are included in the transaction price of the underlying service contract.

We collect taxes on certain revenue transactions to be remitted to governmental authorities, which may include sales, use, value-added and some excise taxes. These taxes are not included in the transaction price and are, therefore, excluded from revenues.

Allocation of Transaction Price. We allocate the transaction price to the single performance obligation that exists in the vast majority of our contracts with customers. For the few contracts that have a second performance obligation, such as those that include an incentive pricing structure, we calculate an average rate based on the estimated total volumes to be delivered over the term of the contract and the resulting estimated total revenue to be billed using the applicable rates in the contract. We allocate the transaction price to the two performance obligations by applying the average rate to product volumes as they are delivered to the customer over the term of the contract. Determining the timing and amount of volumes subject to these incentive pricing contracts requires judgment that can impact the amount of revenue allocated to the two separate performance obligations. We base our estimates on our analysis of expected future production information available from our customers or other sources, which we update at least quarterly.

Some of our MVC contracts include provisions that allow the customer to apply deficiency payments to future service periods (the carryforward period). In those instances, we have not satisfied our performance obligation as we still have the obligation to perform those services, subject to contractual and/or capacity constraints, at the customer's request. At least quarterly, we assess the customer's ability to utilize any deficiency payments during the carryforward period. If we receive a deficiency payment from a customer that we expect the customer to utilize during the carryforward period, we defer that amount as a contract liability. We will consider the performance obligation satisfied and allocate any deferred deficiency payments to our performance obligation when the customer utilizes the deficiency payment, the carryforward period ends or we determine the customer cannot or will not utilize the deficiency payment (i.e. breakage). If our contract does not allow the customer to apply deficiency payments to future service periods, we allocate the deficiency payment to the already satisfied portion of the performance obligation.

Income Allocation

Our partnership agreement contains provisions for the allocation of net income to the unitholders and, prior to the merger with our general partner, to the general partner. Our net income for each quarterly reporting period is first allocated to the preferred limited partner unitholders in an amount equal to the earned distributions for the respective reporting period and, prior to the merger, then to the general partner in an amount equal to the general partner's incentive distribution calculated based upon the declared distribution for the respective reporting period. We allocate the remaining net income or loss among the common unitholders. Prior to the merger, we allocated the remaining net income or loss among the common unitholders (98%) and general partner (2%). See Note 4 for further discussion of the merger and Note 20 for the calculation of net income applicable to the general partner prior to the merger.

Basic and Diluted Net (Loss) Income Per Common Unit

Basic and diluted net (loss) income per common unit are determined pursuant to the two-class method. Under this method, all earnings are allocated to our limited partners and participating securities based on their respective rights to receive distributions earned during the period. Participating securities include restricted units awarded under our long-term incentive plans and, prior to the merger with our general partner, included our general partner's interest.

We compute basic net (loss) income per common unit by dividing net (loss) income attributable to our common limited partners by the weighted-average number of common units outstanding during the period. We compute diluted net (loss) income per common unit by dividing net (loss) income attributable to our common limited partners by the sum of (i) the weighted-average number of common units outstanding during the period and (ii) the effect of dilutive potential common units

outstanding during the period. Dilutive potential common units include contingently issuable performance units awarded and the Series D Preferred Units. See Note 24 for additional information on our performance units, Note 19 for additional information on our Series D Preferred Units and Note 21 for the calculation of basic and diluted net (loss) income per common unit.

Derivative Financial Instruments

When we apply hedge accounting, we formally document all relationships between hedging instruments and hedged items. This process includes identification of the hedging instrument and the hedged transaction, the nature of the risk being hedged and how the hedging instrument's effectiveness will be assessed. To qualify for hedge accounting, at inception of the hedge we assess whether the derivative instruments that are used in our hedging transactions are expected to be highly effective in offsetting changes in cash flows. Throughout the designated hedge period and at least quarterly, we assess whether the derivative instruments are highly effective and continue to qualify for hedge accounting.

Under the terms of our forward-starting interest rate swap agreements, we pay a fixed rate and receive a variable rate. We entered into the forward-starting swaps in order to hedge the risk of changes in the interest payments attributable to changes in the benchmark interest rate during the period from the effective date of the swap to the issuance of the forecasted debt. For forward-starting interest rate swaps designated and qualifying as cash flow hedges, we recognize the fair value of each interest rate swap in the consolidated balance sheets. We record the effective portion of mark-to-market adjustments as a component of accumulated other comprehensive income (loss) (AOCI), and any hedge ineffectiveness is recognized immediately in "Interest expense, net." The amount accumulated in AOCI is amortized into "Interest expense, net" as the forecasted interest payments occur or if the interest payments are probable not to occur.

We classify cash flows associated with our derivative instruments as operating cash flows in the consolidated statements of cash flows, except for receipts or payments associated with terminated forward-starting interest rate swap agreements, which are included in cash flows from financing activities. See Note 18 for additional information regarding our derivative financial instruments.

Unit-based Compensation

Unit-based compensation for our long-term incentive plans is recorded in our consolidated balance sheets based on the fair value of the awards granted and recognized as compensation expense primarily on a straight-line basis over the requisite service period. Forfeitures of our unit-based compensation awards are recognized as an adjustment to compensation expense when they occur. Unit-based compensation expense is included in "General and administrative expenses" on our consolidated statements of (loss) income. Most of our currently outstanding awards are classified as equity awards as we intend to settle these awards through the issuance of our common units. See Note 24 for additional information regarding our unit-based compensation.

Foreign Currency Translation

The functional currencies of our foreign subsidiaries are the local currencies of the countries in which the subsidiaries are located. The assets and liabilities of our foreign subsidiaries with local functional currencies are translated to U.S. dollars at period-end exchange rates, and income and expense items are translated to U.S. dollars at weighted-average exchange rates in effect during the period. These translation adjustments are included in "Accumulated other comprehensive loss" in the equity section of the consolidated balance sheets. Gains and losses on foreign currency transactions are included in "Other income (expense), net" or "(Loss) income from discontinued operations, net of tax" in the consolidated statements of (loss) income.

Reclassifications

We have reclassified certain previously reported amounts in the consolidated financial statements and notes to conform to current-period presentation. As further discussed in Note 5, we reclassified certain balances to assets and liabilities held for sale and certain revenues and expenses to discontinued operations.

3. NEW ACCOUNTING PRONOUNCEMENTS

Simplifying the Accounting for Income Taxes

In December 2019, the Financial Accounting Standards Board (FASB) issued amended guidance that simplifies the accounting for income taxes, including enacted changes in tax laws in interim periods. The guidance is effective for annual and interim periods beginning after December 15, 2020, with early adoption permitted. These provisions should be applied retrospectively, prospectively, or on a modified retrospective basis depending on the area affected by the amended guidance. We are currently evaluating the impact of this amended guidance on our financial position, results of operations or disclosures and whether we will adopt these provisions early.

Securities and Exchange Commission Disclosure Update and Simplification

In August 2018, the Securities and Exchange Commission (SEC) issued final rules regarding disclosure requirements that were redundant, duplicative, overlapping or superseded by other SEC requirements or GAAP. The final rules primarily eliminated or reduced certain disclosure requirements, although they also required some additional disclosures. The rules became effective on November 5, 2018, with an exception for the new disclosure requirement to present changes in partners' equity in interim periods, which permits entities to begin disclosing this information in the quarter that begins after the effective date of the final rules. We elected to utilize this exception, and began presenting statements of partners' equity on an interim basis beginning with the quarter ending March 31, 2019. These final rules did not have an impact on our financial position or results of operations.

Cloud Computing Arrangements

In August 2018, the FASB issued guidance addressing a customer's accounting for implementation costs incurred in a cloud computing arrangement (CCA) that is considered a service contract. Under the new guidance, implementation costs for a CCA should be evaluated for capitalization using the same approach as implementation costs associated with internal-use software and expensed over the term of the hosting arrangement. The guidance is effective for annual and interim periods beginning after December 15, 2019, with early adoption permitted. Prospective adoption for eligible costs incurred on or after the date of adoption or retrospective adoption is permitted. We adopted the guidance on January 1, 2020 on a prospective basis and it did not have a material impact on our financial position or results of operations, and we do not expect it to have a material impact on our disclosures.

Disclosures for Defined Benefit Plans

In August 2018, the FASB issued amended guidance that makes minor changes to the disclosure requirements for employers that sponsor defined benefit pension and/or other postretirement benefit plans. The guidance is effective for annual periods beginning after December 15, 2020, with early adoption permitted, using a retrospective approach. We are currently evaluating whether we will adopt these provisions early, but we do not expect the guidance to have a material impact on our financial position, results of operations or disclosures.

Unit-Based Payments to Nonemployees

In June 2018, the FASB issued amended guidance which aligns the measurement and classification guidance for unit-based payments to nonemployees with the guidance for unit-based payments to employees, with certain exceptions. Under the amended guidance, unit-based payment awards to nonemployees will be measured at their grant date fair value. The guidance is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted. The amended guidance should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. We adopted these provisions on January 1, 2019, and the guidance did not have a material impact on our financial position, results of operations or disclosures.

Goodwill

In January 2017, the FASB issued amended guidance that simplifies the accounting for goodwill impairment. Under the amended guidance, goodwill impairment is measured as the excess of the reporting unit's carrying value over its fair value, not to exceed the carrying amount of goodwill for that reporting unit. The changes are effective for annual and interim periods beginning after December 15, 2019, and amendments should be applied prospectively. Early adoption is permitted for any impairment tests performed after January 1, 2017. We adopted the amended guidance during the first quarter of 2019 and applied the guidance to the goodwill impairment discussed in Note 5.

Credit Losses

In June 2016, the FASB issued amended guidance that requires the use of a "current expected loss" model for financial assets measured at amortized cost and certain off-balance sheet credit exposures. Under this model, entities will be required to estimate the lifetime expected credit losses on such instruments based on historical experience, current conditions, and reasonable and supportable forecasts. This amended guidance also expands the disclosure requirements to enable users of financial statements to understand an entity's assumptions, models and methods for estimating expected credit losses. The changes are effective for annual and interim periods beginning after December 15, 2019, and amendments should be applied using a modified retrospective approach. We adopted the amended guidance on January 1, 2020 and it did not have a material impact on our financial position or results of operations, and we do not expect it to have a material impact on our disclosures.

Leases

In February 2016, the FASB issued amended guidance that requires lessees to recognize the assets and liabilities that arise from most leases on the balance sheet. For lessors, this amended guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. The changes are effective for annual and interim periods beginning after December 15,

2018, and amendments should be applied using one of two modified retrospective transition methods. We adopted these provisions on January 1, 2019 through a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The transition adjustment related to the adoption was immaterial, and the adoption of this guidance did not materially impact the results of our operations. Please refer to Note 17 for further discussion.

4. MERGER AND RELATED PARTY AGREEMENTS

On July 20, 2018, we completed the merger of Holdings with a subsidiary of NuStar Energy (the Merger). Pursuant to the Merger agreement and at the effective time of the Merger, NuStar Energy's partnership agreement was amended and restated to, among other things, (i) cancel the incentive distribution rights held by our general partner, (ii) convert the 2% general partner interest in NuStar Energy held by our general partner into a non-economic management interest and (iii) provide the holders of our common units with voting rights in the election of the members of the board of directors of NuStar GP, LLC, beginning at the annual meeting in 2019.

At the effective time of the Merger, each outstanding Holdings common unit was converted into the right to receive 0.55 of a NuStar Energy common unit and all Holdings common units ceased to be outstanding. As a result of the Merger, we issued approximately 23.6 million NuStar Energy common units and cancelled the 10.2 million NuStar Energy common units owned by subsidiaries of Holdings, resulting in approximately 13.4 million incremental NuStar Energy common units outstanding after the Merger. In addition, we repaid Holdings' debt with borrowings under our revolving credit agreement and incurred transaction costs for aggregate cash consideration of approximately \$68.0 million.

Also at the effective time of the Merger, each outstanding award of Holdings restricted units was converted, on the same terms and conditions as were applicable to the awards immediately prior to the Merger, into an award of NuStar Energy restricted units. The number of NuStar Energy restricted units subject to the converted awards was determined pursuant to the 0.55 exchange ratio provided in the Merger Agreement.

Following the completion of the Merger, the NuStar GP, LLC board of directors consists of nine members, currently composed of the six members of the NuStar GP, LLC board of directors prior to the Merger and the three independent directors who served prior to the Merger on Holdings' board of directors.

We accounted for the Merger as an equity transaction similar to a redemption or induced conversion of preferred stock. The excess of (x) the fair value of the consideration transferred in exchange for the outstanding Holdings units over (y) the carrying value of the general partner interest in the Partnership was subtracted from net income available to common unitholders in the calculation of net loss per common unit attributable to the Merger as follows (in thousands of dollars, except unit and per unit data):

Consideration transferred:	
Fair value of incremental NS common units issued	\$ 335,106
Holdings debt and assumed net current liabilities	52,075
Transaction costs	15,897
Total consideration	403,078
Carrying value of general partner interest	 25,999
Loss to common unitholders attributable to the Merger	\$ (377,079)
For the year ended December 31, 2018:	
Basic weighted-average common units outstanding	99,490,495
Loss per common unit attributable to the Merger	\$ (3.79)

Related Party Agreements with Holdings

GP Services Agreement. Prior to the Merger, we were a party to an Amended and Restated Services Agreement with NuStar GP, LLC, effective March 1, 2016 (the Amended GP Services Agreement), which provided that we furnish administrative services necessary to conduct the business of Holdings, and Holdings compensated us for these services for an annual fee of \$1.0 million, subject to adjustment based on the annual merit increase percentage applicable to our employees for the most recently completed fiscal year and for changes in level of service. We terminated the Amended GP Services Agreement in conjunction with the Merger.

Non-Compete Agreement. On July 19, 2006, we entered into a non-compete agreement with Holdings, Riverwalk Logistics, L.P. and NuStar GP, LLC (the Non-Compete Agreement). The Non-Compete Agreement became effective on December 22, 2006. Under the Non-Compete Agreement, we had the right of first refusal with respect to the potential acquisition of assets related to the transportation, storage or terminalling of crude oil, feedstocks or refined products (including petrochemicals) in the United States and internationally. Holdings had a right of first refusal with respect to the potential acquisition of general partner and other equity interests in publicly traded partnerships under common ownership with the general partner interest. As a result of the Merger, the Non-Compete Agreement was terminated, effective July 20, 2018.

5. DISCONTINUED OPERATIONS AND IMPAIRMENTS

On November 30, 2018, we sold our European Operations for approximately \$270.0 million. The European Operations were previously reported in our storage segment. In association with the European Disposition, we recognized a non-cash loss of \$43.4 million related to the sale in "(Loss) income from discontinued operations, net of tax" on the consolidated statement of income for the year ended December 31, 2018.

On January 28, 2019, the U.S. Department of the Treasury's Office of Foreign Assets Control added Petroleos de Venezuela, S.A. (PDVSA), at the time a customer at the St. Eustatius facility, to its List of Specially Designated Nationals and Blocked Persons (the SDN List). The inclusion of PDVSA on the SDN List required us to wind down our contracts with PDVSA. Prior to winding down such contracts, PDVSA was the St. Eustatius terminal's largest customer.

The effect of the sanctions issued against PDVSA, combined with the progression in the sale negotiations that occurred during March 2019, resulted in triggering events that caused us to evaluate the long-lived assets and goodwill associated with the St. Eustatius terminal and bunkering operations for potential impairment.

With respect to the terminal operations long-lived assets, our estimates of future expected cash flows included the possibility of a near-term sale, as well as continuing to operate the terminal. The carrying value of the terminal's long-lived assets exceeded our estimate of the total expected cash flows, indicating the long-lived assets were potentially impaired. To determine an impairment amount, we estimated the fair value of the long-lived assets for comparison to the carrying amount of those assets. Our estimate of the fair value considered the expected sales price as well as estimates generated from income and market approaches using a market participant's assumptions. The estimated fair values resulting from the market and income approaches were consistent with the expected sales price. Therefore, we concluded that the estimated sales price, which was less than the carrying amount of the long-lived assets, represented the best estimate of fair value at March 31, 2019, and we recorded a long-lived asset impairment charge of \$297.3 million in the first quarter of 2019 to reduce the carrying value of the assets to their estimated fair value. We recorded an additional impairment charge of \$8.4 million in the second quarter of 2019, mainly due to additional capital expenditures incurred in the second quarter.

With respect to the goodwill in the Statia Bunkering reporting unit, which consisted of our bunkering operations at the St. Eustatius terminal facility, we estimated the fair value based on the expected sales price discussed above, which is inclusive of the bunkering operations. As a result, we concluded the goodwill was impaired. Consistent with FASB's amended goodwill impairment guidance discussed in Note 3, which we adopted in the first quarter of 2019, we measured the goodwill impairment as the difference between the reporting unit's carrying value and its fair value. Therefore, we recognized a goodwill impairment charge of \$31.1 million in the first quarter of 2019 to reduce the goodwill to \$0 for the Statia Bunkering reporting unit.

The impairment charges are included in "(Loss) income from discontinued operations, net of tax" on the consolidated statement of loss.

During the second quarter of 2019, we determined the assets and liabilities associated with the St. Eustatius Operations met the criteria to be classified as held for sale. We determined the St. Eustatius Operations and the European Operations met the requirements to be reported as discontinued operations since the St. Eustatius Disposition and the European Disposition together represented a strategic shift that will have a major impact on our operations and financial results. These sales were part

of our plan to improve our debt metrics and partially fund capital projects to grow our core business in North America. Accordingly, the consolidated balance sheet reflects the assets and liabilities associated with the St. Eustatius Operations as held for sale as of December 31, 2018, and the consolidated statements of (loss) income reflect the St. Eustatius Operations and the European Operations as discontinued operations for all applicable periods presented.

On July 29, 2019, we sold the St. Eustatius Operations for net proceeds of approximately \$230.0 million. The St. Eustatius Disposition included a 14.3 million barrel storage and terminalling facility and related assets on the island of St. Eustatius in the Caribbean Netherlands. We previously reported the terminal operations in our storage segment and the bunkering operations in our fuels marketing segment. We recognized a non-cash loss on the sale of \$3.9 million in "(Loss) income from discontinued operations, net of tax" on the consolidated statement of loss in 2019.

Discontinued Operations

The following is a reconciliation of the major classes of line items included in "(Loss) income from discontinued operations, net of tax" on the consolidated statements of (loss) income:

	Year Ended December 31,					
		2019	2018		2017	
		(Thousands of Dollars)				
Revenues	\$	248,981	\$ 441,495	\$	369,247	
Costs and expenses:						
Cost of revenues		220,595	407,256		318,532	
Impairment losses		336,838	_		_	
General and administrative expenses (excluding depreciation and amortization expense)		1,231	6,133		4,684	
Other depreciation and amortization expense		_	271		263	
Total costs and expenses	-	558,664	413,660		323,479	
Operating (loss) income		(309,683)	27,835		45,768	
Interest income (expense), net		32	(1,839)		(1,309)	
Other (expense) income, net		(2,775)	34,674		(5,226)	
(Loss) income from discontinued operations before income						
tax expense		(312,426)	60,670		39,233	
Income tax expense		101	1,251		2,164	
(Loss) income from discontinued operations, net of tax	\$	(312,527)	\$ 59,419	\$	37,069	

The consolidated statements of cash flows have not been adjusted to separately disclose cash flows related to discontinued operations. The following table presents selected cash flow information associated with our discontinued operations:

	<u> </u>	Year Ended December 31,								
		2019		2018	2017					
Capital expenditures	\$	(27,954)	\$	(114,811)	\$	(153,785)				
Significant noncash operating activities and other adjustments:										
Depreciation and amortization expense	\$	8,536	\$	41,982	\$	36,040				
Asset impairment losses	\$	305,715	\$	_	\$	_				
Goodwill impairment loss	\$	31,123	\$	_	\$	_				
Loss from sale of the St. Eustatius Operations	\$	3,942	\$	_	\$	_				
Loss from sale of the European Operations	\$	_	\$	43,366	\$	_				
Gain from insurance recoveries	\$	_	\$	(78,756)	\$	_				

Assets and Liabilities Held for Sale

The following is a reconciliation of the carrying amounts of the major classes of assets and liabilities included in "Assets held for sale" and "Liabilities held for sale" on the consolidated balance sheet:

	Dece	ember 31, 2018
	(Thou:	sands of Dollars)
Total current assets	\$	54,404
Property, plant and equipment, net		513,820
Goodwill		31,123
Assets held for sale	\$	599,347
Current liabilities	\$	69,834

6. ACQUISITIONS

Council Bluffs Acquisition. On April 16, 2018, we acquired CHS Inc.'s Council Bluffs pipeline system, comprised of a 227-mile pipeline and 18 storage tanks, for approximately \$37.5 million. The assets acquired and the results of operations are included in our pipeline segment from the date of acquisition. We accounted for this acquisition as an asset purchase.

Navigator Acquisition. On May 4, 2017, we acquired Navigator Energy Services, LLC (Navigator) for approximately \$1.5 billion (the Navigator Acquisition). We acquired crude oil transportation, pipeline connection and storage assets located in the Midland Basin in West Texas that, together with the assets we have constructed through various expansion projects since the date of the Navigator Acquisition, we collectively refer to as our Permian Crude System. The assets acquired are included in our pipeline segment. The consolidated statements of (loss) income include the results of operations for Navigator commencing on May 4, 2017.

We accounted for the Navigator Acquisition using the acquisition method. The following table reflects the final purchase price allocation:

	Purchas	se Price Allocation
	(Thou	sands of Dollars)
Accounts receivable	\$	4,747
Other current assets		2,359
Property, plant and equipment, net		376,690
Intangible assets (a)		700,000
Goodwill (b)		398,024
Other long-term assets, net		2,199
Current liabilities		(22,300)
Purchase price allocation, net of cash acquired	\$	1,461,719

- (a) Intangible assets, which consist of customer contracts and relationships, are amortized on a straight-line basis over a period of 20 years.
- (b) The goodwill acquired represents the expected benefit from entering new geographic areas and the anticipated opportunities to generate future cash flows from the assets acquired and potential future projects.

The unaudited pro forma information for the year ended December 31, 2017 below presents the combined historical financial information for Navigator and the Partnership for those periods. This information assumes:

- we completed the Navigator Acquisition on January 1, 2017;
- we issued approximately 14.4 million common units;
- we received a contribution from our general partner of \$13.6 million to maintain the 2% general partner economic interest it owned at that time;
- we issued 15.4 million Series B Preferred Units;
- we issued \$550.0 million of 5.625% senior notes;
- additional depreciation and amortization that would have been incurred assuming the fair value adjustments to property, plant and equipment and intangible assets reflected in the purchase price allocation above; and
- we satisfied Navigator's outstanding obligations under its revolving credit agreement.

		Year Ended December 31, 2017		
	(Thousands of Dollars, Except Per Un			
Revenues	\$	1,828,418		
Net income	\$	127,433		
Basic and diluted net income per common unit	\$	0.31		

The pro forma information for the year ended December 31, 2017 includes transaction costs of \$14.1 million, which were directly attributable to the Navigator Acquisition. The pro forma information is unaudited and is not necessarily indicative of the results of operations that would have resulted had the Navigator Acquisition occurred on January 1, 2017 or that may result in the future.

7. REVENUE FROM CONTRACTS WITH CUSTOMERS

Transition

On January 1, 2018, we adopted ASC Topic 606 using the modified retrospective method and applied ASC Topic 606 to all revenue contracts with customers. Results for reporting periods beginning January 1, 2018 are presented under ASC Topic 606. In accordance with the modified retrospective approach, prior period amounts were not adjusted and are reported under ASC Topic 605, "Revenue Recognition."

The adoption of ASC Topic 606 affected our consolidated statements of (loss) income as follows:

	<u> </u>	As Reported	Without Adoption of ASC Topic 606			Effect of Change Higher/(Lower)		
		(Thousands of Dollars, Except Per Unit Data)						
For the year ended December 31, 2018:								
Revenues	\$	1,520,262	\$	1,526,447	\$	(6,185)		
Operating income	\$	335,728	\$	341,913	\$	(6,185)		
Income from continuing operations	\$	146,375	\$	152,560	\$	(6,185)		
Basic net loss per common unit from continuing operations	\$	(3.34)	\$	(3.27)	\$	(0.07)		

Contract Assets and Contract Liabilities

The following table provides information about contract assets and contract liabilities from contracts with customers:

	2019					2018					
		Contract Assets		Contract Liabilities		Contract Assets	Contract Assets Cor				
		(Thousands	of D	Oollars)		(Thousands	(Thousands of Dollars)				
Balances as of January 1:											
Current portion	\$	2,066	\$	(21,579)	\$	1,956	\$	(13,801)			
Noncurrent portion		539		(38,945)		171		(46,361)			
Held for sale		_		(25,357)		_		(302)			
Total		2,605		(85,881)		2,127		(60,464)			
Activity:											
•		4.000		(52.057)		2.201		(02.242)			
Additions		4,890		(52,957)		3,281		(83,243)			
Transfer to accounts receivable		(4,352)		_		(2,803)		_			
Transfer to revenues, including amounts reported in discontinued operations	l	_		77,466		_		57,826			
Total		538		24,509		478		(25,417)			
Balances as of December 31:											
Current portion		2,140		(21,083)		2,066		(21,579)			
Noncurrent portion		1,003		(40,289)		539		(38,945)			
Held for sale	_	_		_		_		(25,357)			
Total	\$	3,143	\$	(61,372)	\$	2,605	\$	(85,881)			

Contract assets relate to performance obligations satisfied in advance of scheduled billings. Current contract assets are included in "Other current assets" and noncurrent contract assets are included in "Other long-term assets, net" on the consolidated balance sheets. Contract liabilities relate to payments received in advance of satisfying performance obligations under a contract, which mainly result from contracts with an incentive pricing structure, CIAC payments and contracts with MVCs. Current contract liabilities are included in "Accrued liabilities" or "Liabilities held for sale" and noncurrent contract liabilities are included in "Other long-term liabilities" on the consolidated balance sheets.

In the third quarter of 2018, we entered into an agreement whereby our customer transferred ownership of crude oil to us, and we agreed to sell the crude oil and apply the proceeds as a non-refundable, one-time payment of storage fees. At the time of the agreement, we recognized a contract liability of \$37.5 million. We recognized all the revenue associated with this contract liability by the end of 2019.

In the second quarter of 2018, one customer for whom we had recorded a contract liability to perform future services elected not to extend the term of its terminal storage contract, thus reducing our future performance obligation. As a result, we adjusted the related contract liability and recognized \$9.0 million in revenue.

Remaining Performance Obligations

The following table presents our estimated revenue from contracts with customers for remaining performance obligations that has not yet been recognized, representing our contractually committed revenue as of December 31, 2019 (in thousands of dollars):

2020	\$ 529,830
2021	376,500
2022	310,632
2023	236,853
2024	175,358
Thereafter	255,808
Total	\$ 1,884,981

Our contractually committed revenue, for purposes of the tabular presentation above, is generally limited to customer contracts that have fixed pricing and fixed volume terms and conditions, generally including contracts with MVC payment obligations.

Disaggregation of Revenues

The following table disaggregates our revenues:

	Year Ended December 31,						
		2019	2018			2017	
	(Thousands of Dollars)						
Pipeline segment:							
Crude oil pipelines	\$	316,417	\$	248,261	\$	187,874	
Refined products and ammonia pipelines (excluding lessor revenues)		376,588		362,750		328,414	
Total pipeline segment revenues from contracts with customers		693,005		611,011		516,288	
Lessor revenues		8,825		54		_	
Total pipeline segment revenues		701,830		611,065		516,288	
Storage segment:							
Throughput terminals		114,243		83,157		85,927	
Storage terminals (excluding lessor revenues)		298,984		320,582		317,963	
Total storage segment revenues from contracts with customers		413,227		403,739		403,890	
Lessor revenues		40,774		39,849		39,126	
Total storage segment revenues		454,001		443,588		443,016	
				_			
Fuels marketing segment:							
Revenues from contracts with customers		342,215		465,651		489,807	
Consolidation and intersegment eliminations		(25)		(42)		(4,339)	
Total revenues	\$	1,498,021	\$	1,520,262	\$	1,444,772	

8. ALLOWANCE FOR DOUBTFUL ACCOUNTS

The changes in the allowance for doubtful accounts consisted of the following:

	Year Ended December 31,						
	2019		2019 2018			2017	
	(Thousands of Dollars)						
Balance as of beginning of year	\$	9,412	\$	9,380	\$	7,700	
Increase in allowance, net		2,322		233		1,705	
Accounts charged against the allowance		(11,662)		(201)		(25)	
Balance as of end of year	\$	72	\$	9,412	\$	9,380	

9. INVENTORIES

Inventories consisted of the following:

		December 31,				
		2019		2018		
	(Thousands of Dollars))		
Petroleum products	\$	8,646	\$	4,853		
Materials and supplies		3,747		3,581		
Total	\$	12,393	\$	8,434		

We purchase petroleum products for resale. Our petroleum products consist of intermediates, gasoline, distillates and other petroleum products. Materials and supplies mainly consist of blending and additive chemicals and maintenance materials used in our pipeline and storage segments.

10. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following:

				 Decem	ber 31,	
	Estimated Useful Lives			 2019		2018
		(Years)		(Thousand	s of Doll	ars)
Land		-		\$ 144,409	\$	138,487
Land and leasehold improvements	5	-	40	223,220		181,578
Buildings	15	-	40	166,878		146,517
Pipelines, storage and terminals	15	-	40	5,038,468		4,702,421
Rights-of-way	20	-	40	350,026		301,738
Construction in progress		-		264,143		157,064
Total				6,187,144		5,627,805
Less accumulated depreciation and amortization				(2,068,165)		(1,853,003)
Property, plant and equipment, net				\$ 4,118,979	\$	3,774,802

Capitalized interest costs added to property, plant and equipment, including amounts related to discontinued operations, totaled \$8.9 million, \$7.8 million and \$5.5 million for the years ended December 31, 2019, 2018 and 2017, respectively. Depreciation and amortization expense for property, plant and equipment totaled \$226.0 million, \$243.5 million and \$222.5 million for the years ended December 31, 2019, 2018 and 2017, respectively, including depreciation and amortization expense reported in "(Loss) income from discontinued operations, net of tax" on the consolidated statements of (loss) income.

11. INTANGIBLE ASSETS

Intangible assets consisted of the following:

		Decembe	2019		December 31, 2018					
	Weighted-Average Amortization Period	Cost		Accumulated Amortization		Cost	Accumulated Amortization			
	(Years)		(Thousands	of D	ollars)					
Customer contracts and relationships	18	\$ 863,900	\$	(183,832)	\$	863,950	\$	(132,509)		
Other	47	2,359		(795)		2,359		(744)		
Total		\$ 866,259	\$	(184,627)	\$	866,309	\$	(133,253)		

Intangible assets are recorded at fair value as of the date acquired. All of our intangible assets are amortized on a straight-line basis. Amortization expense for intangible assets was \$51.4 million, \$51.4 million and \$39.6 million for the years ended December 31, 2019, 2018 and 2017, respectively. The estimated aggregate amortization expense is approximately \$51.0 million for each of the years 2020 through 2022, and approximately \$45.0 million for 2023 and 2024.

12. GOODWILL

Changes in the carrying amount of goodwill by segment were as follows:

	Pipeline		Storage	Total	
		(Tho	usands of Dollars	s)	
Balances as of January 1, 2018	\$ 707,045	\$	301,622	\$	1,008,667
Activity for the year ended December 31, 2018:					
Navigator Acquisition purchase price allocation adjustments (Note 6)	(2,814)		_		(2,814)
Balances as of December 31, 2018 and 2019	\$ 704,231	\$	301,622	\$	1,005,853

As discussed in Note 5, the assets and liabilities associated with the European Operations and the St. Eustatius Operations, including goodwill, were reclassified to assets and liabilities held for sale for all periods presented and are not included in the table above. In connection with the European Disposition in 2018, we allocated goodwill of \$57.7 million to the European Operations. In 2019, goodwill of \$31.1 million associated with the bunkering operations at the St. Eustatius terminal facility, which represented all goodwill in the fuels marketing segment, was reduced to \$0. Please see Note 5 for additional information. As a result of the St. Eustatius Disposition, there are no accumulated impairment losses associated with continuing operations as of December 31, 2019.

13. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	 December 31,			
	2019		2018	
	 (Thousand	s of Dollar	s)	
Employee wages and benefit costs	\$ 36,704	\$	29,518	
Revenue contract liabilities	21,083		21,579	
Interest rate swaps	19,169		_	
Operating lease liabilities	10,416		_	
Other	16,913		23,321	
Accrued liabilities	\$ 104,285	\$	74,418	

14. DEBT

Short-term debt consisted of the following:

	December 31,				
		2019		2018	
		ars)			
Short-term line of credit	\$	5,500	\$	18,500	
Current portion of finance leases (refer to Note 17)		4,546		_	
Short-term debt and current portion of finance leases	\$	10,046	\$	18,500	

NuStar Logistics is party to a short-term line of credit agreement with an uncommitted borrowing capacity of up to \$35.0 million, which allows us to better manage fluctuations in our daily cash requirements and minimize our excess cash balances. The interest rates and maturities vary and are determined at the time of borrowing. Obligations under this short-term line of credit agreement are guaranteed by NuStar Energy. As of December 31, 2019 and 2018, the weighted-average interest rates related to outstanding borrowings under our short-term line of credit were 3.6% and 4.4%, respectively.

Long-term debt consisted of the following:

	1	Maturit	y		2019		2018
					(Thousand	s of Doll	ars)
Revolving Credit Agreement		2021		\$	475,000	\$	745,000
4.80% senior notes		2020			450,000		450,000
6.75% senior notes		2021			300,000		300,000
4.75% senior notes		2022			250,000		250,000
6.00% senior notes		2026			500,000		_
5.625% senior notes		2027			550,000		550,000
Subordinated Notes		2043			402,500		402,500
GoZone Bonds	2038	thru	2041		365,440		365,440
Receivables Financing Agreement		2021			62,200		61,800
Net fair value adjustments, unamortized discounts and unamortized debt issuance costs		N/A			(23,301)		(12,744)
Total long-term debt (excluding finance leases)					3,331,839		3,111,996
Finance leases (refer to Note 17)					55,446		_
Less current portion					452,367		_
Long-term debt, less current portion				\$	2,934,918	\$	3,111,996
The long-term debt repayments (excluding finance leases) are due as follows (in thou	sands of d	ollars):					
2020					\$		450,000
2021							837,200
2022							250,000
2023							_
2024							_
Thereafter							1,817,940
Total repayments							3,355,140
Net fair value adjustments, unamortized discounts and unamortized debt issuance cos	ts						(23,301)
Total long-term debt (excluding finance leases)					\$		3,331,839

We expect to refinance senior note maturities in 2020 and 2021 by utilizing the capital markets, pursuing other sources of debt financing or with funds available under our revolving credit agreement.

Interest payments totaled \$183.8 million, \$190.9 million and \$163.6 million for the years ended December 31, 2019, 2018 and 2017, respectively, related to debt obligations. We amortized an aggregate of \$6.5 million, \$7.1 million and \$5.0 million of debt issuance costs and debt discount combined for the years ended December 31, 2019, 2018 and 2017, respectively.

Revolving Credit Agreement

On September 12, 2019, NuStar Logistics amended its revolving credit agreement (the Revolving Credit Agreement) primarily to extend the maturity date to October 29, 2021 and reduce the total amount available for borrowing from \$1.4 billion to \$1.2 billion.

For the rolling period ending December 31, 2019, the maximum allowed consolidated debt coverage ratio (as defined in the Revolving Credit Agreement) may not exceed 5.00-to-1.00 and the minimum consolidated interest coverage ratio (as defined in the Revolving Credit Agreement), must not be less than 1.75-to-1.00. If we complete one or more acquisitions for aggregate net consideration of at least \$50.0 million, our maximum consolidated debt coverage ratio will increase to 5.50-to-1.00 for two rolling periods. The maximum consolidated debt coverage ratio and minimum consolidated interest coverage ratio requirements may limit the amount we can borrow under the Revolving Credit Agreement to an amount less than the total amount available for borrowing. The Revolving Credit Agreement also contains customary restrictive covenants, such as limitations on indebtedness, liens, mergers, asset transfers and certain investing activities. As of December 31, 2019, we believe that we are in compliance with the covenants in the Revolving Credit Agreement.

As of December 31, 2019, we had \$721.0 million available for borrowing. Obligations under the Revolving Credit Agreement are guaranteed by NuStar Energy and NuPOP. Letters of credit issued under the Revolving Credit Agreement totaled \$4.0 million as of December 31, 2019. Letters of credit are limited to \$400.0 million and also may restrict the amount we can borrow under the Revolving Credit Agreement.

The Revolving Credit Agreement bears interest, at our option, based on an alternative base rate, a LIBOR-based rate or a EURIBOR-based rate. The interest rate on the Revolving Credit Agreement is subject to adjustment if our debt rating is downgraded (or upgraded) by certain credit rating agencies. As of December 31, 2019, our weighted-average interest rate was 3.9%, and we had \$475.0 million outstanding. During the year ended December 31, 2019, the weighted-average interest rate related to borrowings under the Revolving Credit Agreement was 4.4%.

Notes

NuStar Logistics Senior Notes. On May 22, 2019, NuStar Logistics issued \$500.0 million of 6.0% senior notes due June 1, 2026. We received net proceeds of \$491.6 million, which we used to repay outstanding borrowings under our Revolving Credit Agreement. The interest on the 6.0% senior notes is payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2019.

On April 28, 2017, NuStar Logistics issued \$550.0 million of 5.625% senior notes due April 28, 2027. We used the net proceeds of \$543.3 million from the offering to fund a portion of the purchase price for the Navigator Acquisition and to pay related fees and expenses. The interest on the 5.625% senior notes is payable semi-annually in arrears on April 28 and October 28 of each year, beginning on October 28, 2017.

Interest is payable semi-annually in arrears for the \$450.0 million of 4.80% senior notes, \$300.0 million of 6.75% senior notes, \$250.0 million of 4.75% senior notes, \$500.0 million of 6.0% senior notes and \$550.0 million of 5.625% senior notes (collectively, the NuStar Logistics Senior Notes). We repaid the \$350.0 million of 7.65% senior notes on April 15, 2018 with borrowings under our Revolving Credit Agreement.

The NuStar Logistics Senior Notes do not have sinking fund requirements. These notes rank equally with existing senior unsecured indebtedness and senior to existing subordinated indebtedness of NuStar Logistics and contain restrictions on NuStar Logistics' ability to incur additional secured indebtedness unless the same security is also provided for the benefit of holders of the NuStar Logistics Senior Notes. In addition, the NuStar Logistics Senior Notes limit NuStar Logistics' ability to incur indebtedness secured by certain liens and to engage in certain sale-leaseback transactions and engage in certain consolidations, mergers or asset sales. At the option of NuStar Logistics, the NuStar Logistics Senior Notes may be redeemed in whole or in part at any time at a redemption price, plus accrued and unpaid interest to the redemption date. If we undergo a change of control, as defined in the supplemental indentures for the 6.75% senior notes, the 6.0% senior notes or the 5.625% senior notes, each holder of the 6.75% senior notes, the 6.0% senior notes or the 5.625% senior notes may require us to repurchase all or a portion of its notes at a price equal to 101% of the principal amount of the notes repurchased, plus any accrued and unpaid interest to the date of repurchase. The NuStar Logistics Senior Notes are fully and unconditionally guaranteed by NuStar Energy and NuPOP.

NuStar Logistics Subordinated Notes. NuStar Logistics' \$402.5 million of fixed-to-floating rate subordinated notes are due January 15, 2043 (the Subordinated Notes). The Subordinated Notes are fully and unconditionally guaranteed on an unsecured and subordinated basis by NuStar Energy and NuPOP. Effective January 15, 2018, the interest rate on the Subordinated Notes switched from a fixed annual rate of 7.625%, payable quarterly in arrears, to an annual rate equal to the sum of the three-month LIBOR for the related quarterly interest period, plus 6.734% payable quarterly, commencing April 15, 2018, unless payment is deferred in accordance with the terms of the notes. NuStar Logistics may elect to defer interest payments on the Subordinated Notes on one or more occasions for up to five consecutive years. Deferred interest will accumulate additional interest at a rate equal to the interest rate then applicable to the Subordinated Notes until paid. If NuStar Logistics elects to defer interest payments, NuStar Energy cannot declare or make cash distributions to its unitholders during the period that interest payments are deferred. As of December 31, 2019, the interest rate was 8.7%.

The Subordinated Notes do not have sinking fund requirements and are subordinated to existing senior unsecured indebtedness of NuStar Logistics and NuPOP. The Subordinated Notes do not contain restrictions on NuStar Logistics' ability to incur additional indebtedness, including debt that ranks senior in priority of payment to the notes. In addition, the Subordinated Notes do not limit NuStar Logistics' ability to incur indebtedness secured by liens or to engage in certain sale-leaseback transactions. Effective January 15, 2018, we may redeem the Subordinated Notes in whole or in part at a redemption price equal to 100% of the principal amount plus accrued and unpaid interest to the redemption date.

Gulf Opportunity Zone Revenue Bonds

In 2008, 2010 and 2011, the Parish of St. James, Louisiana issued Revenue Bonds Series 2008, Series 2010, Series 2010A, Series 2010B and Series 2011 associated with our St. James terminal expansions pursuant to the Gulf Opportunity Zone Act of 2005 for an aggregate \$365.4 million (collectively, the GoZone Bonds). The interest rates on these bonds are based on a weekly tax-exempt bond market interest rate, and interest is paid monthly. Following the issuances, the proceeds were deposited with a trustee and were disbursed to us upon our request for reimbursement of expenditures related to our St. James terminal expansions. We include the amount remaining in the trust in "Other long-term assets, net," and we include the amount of bonds issued in "Long-term debt" in our consolidated balance sheets. We did not receive any proceeds from the trustee for the years ended December 31, 2019 and 2018.

NuStar Logistics is solely obligated to service the principal and interest payments associated with the GoZone Bonds. Letters of credit were issued by various individual banks on our behalf to guarantee the payment of interest and principal on the bonds. All letters of credit rank equally with existing senior unsecured indebtedness of NuStar Logistics and generally contain the same restrictive covenants, maximum consolidated debt coverage ratio and minimum consolidated interest coverage ratio requirements as the Revolving Credit Agreement. Obligations under the letters of credit issued are guaranteed by NuStar Energy and NuPOP. The letters of credit issued by individual banks do not restrict the amount we can borrow under the Revolving Credit Agreement. At the option of NuStar Logistics, during any period when the bonds bear interest at a daily or weekly rate, the GoZone Bonds may be redeemed in whole or in part on any interest payment date for 100% of the outstanding principal amount plus accrued interest to the redemption date. On January 27, 2020, NuStar Logistics provided the trustee with notice to call the \$43.3 million principal amount of the GoZone Bonds remaining in trust for redemption on March 4,

The following table summarizes the GoZone Bonds outstanding as of December 31, 2019:

_	Date Issued	Maturity Date	Amount Outstanding			Amount of Letter of Credit		Amount Received from Trustee	Amount Remaining in Trust (a)	Interest Rate (b)
						(Thousan	ds of	Dollars)		
	June 26, 2008	June 1, 2038	\$	55,440	\$	56,169	\$	55,440	\$ _	1.6%
	July 15, 2010	July 1, 2040		100,000		101,315		100,000	_	1.5%
	October 7, 2010	October 1, 2040		50,000		50,658		43,741	6,652	1.5%
	December 29, 2010	December 1, 2040		85,000		86,118		49,782	36,580	1.5%
	August 9, 2011	August 1, 2041		75,000		75,986		75,000	_	1.6%
		Total	\$	365,440	\$	370,246	\$	323,963	\$ 43,232	

- (a) Amount remaining in trust includes accrued interest.
- (b) For the year ended December 31, 2019, our weighted-average interest rate on borrowings was 1.5%.

Receivables Financing Agreement

NuStar Energy and NuStar Finance LLC (NuStar Finance), a special purpose entity and wholly owned subsidiary of NuStar Energy, are parties to a \$125.0 million receivables financing agreement with third-party lenders (the Receivables Financing Agreement) and agreements with certain of NuStar Energy's wholly owned subsidiaries (together with the Receivables Financing Agreement, the Securitization Program). Under the Securitization Program, certain of NuStar Energy's wholly owned subsidiaries (collectively, the Originators), sell their accounts receivable to NuStar Finance on an ongoing basis, and NuStar Finance provides the newly acquired accounts receivable as collateral for its revolving borrowings under the Receivables Financing Agreement. NuStar Energy provides a performance guarantee in connection with the Securitization Program. The amount available for borrowing is limited to \$125.0 million and is based on the availability of eligible receivables and other customary factors and conditions. The Securitization Program contains various customary affirmative and negative covenants and default, indemnification and termination provisions, and the Receivables Financing Agreement provides for acceleration of amounts owed upon the occurrence of certain specified events. NuStar Finance's sole activity consists of purchasing such receivables and providing them as collateral under the Securitization Program. NuStar Finance is a separate legal entity and the assets of NuStar Finance, including these accounts receivable, are not available to satisfy the claims of creditors of NuStar Energy, the Originators or their affiliates.

On April 29, 2019, we amended the Receivables Financing Agreement to extend the scheduled termination date from September 20, 2020 to September 20, 2021, with the option to renew for additional 364-day periods thereafter, and to amend certain provisions with respect to receivables related to certain customers. Borrowings by NuStar Finance under the Receivables Financing Agreement bear interest at the applicable bank rate, as defined under the Receivables Financing Agreement. As of December 31, 2019 and 2018, accounts receivable totaling \$112.8 million and \$95.5 million, respectively, were included in the Securitization Program. The weighted average interest rate related to outstanding borrowings under the Securitization Program during the year ended December 31, 2019 was 3.2%.

15. HEALTH, SAFETY AND ENVIRONMENTAL MATTERS

Our operations are subject to extensive international, federal, state and local environmental laws and regulations, in the U.S. and in the other countries in which we operate, including those relating to the discharge of materials into the environment, waste management, remediation, the characteristics and composition of fuels, climate change and greenhouse gases. Our operations are also subject to extensive health, safety and security laws and regulations, including those relating to worker and pipeline safety, pipeline and storage tank integrity and operations security. The principal environmental, health, safety and security risks associated with our operations relate to unauthorized emissions into the air, releases into soil, surface water or groundwater, personal injury and property damage. We have adopted policies, practices, systems and procedures designed to comply with the laws and regulations and to help mitigate these risks, limit the liability that could result from such events, prevent material environmental or other damage, ensure the safety of our employees and the public and secure our pipelines, terminals and operations. Compliance with environmental, health, safety and security laws, regulations and related permits increases our capital expenditures and operating expenses, and violation of these laws, regulations or permits could result in significant civil and criminal liabilities, injunctions or other penalties. Future governmental action and regulatory initiatives could necessitate changes to expected operating permits and procedures, additional remedial actions or increased capital expenditures and operating costs. Risks of additional costs and liabilities are inherent to government-regulated industries, including midstream energy, and there can be no assurances that significant costs and liabilities will not be incurred in the future.

Most of our pipelines are subject to federal regulation by one or more of the following governmental agencies: The Federal Energy Regulatory Commission (the FERC), the Surface Transportation Board (the STB), the Department of Transportation (DOT), the Environmental Protection Agency (EPA) and the Department of Homeland Security. Additionally, the operations and integrity of the pipelines are subject to the respective jurisdictions of the states those lines traverse.

Environmental and safety exposures and liabilities are difficult to assess and estimate due to unknown factors such as the timing and extent of remediation, the determination of our liability in proportion to other parties, improvements in cleanup technologies and the extent to which environmental and safety laws and regulations may change in the future. Although environmental and safety costs may have a significant impact on the results of operations for any single period, we believe that such costs will not have a material adverse effect on our financial position.

The balance of and changes in the accruals for environmental matters were as follows:

		Year Ended December 31,				
		2019		2018		
Balance as of the beginning of year	\$	7,753	\$	5,095		
Additions to accrual		3,700		5,708		
Payments		(3,515)		(3,050)		
Balance as of the end of year	\$	7,938	\$	7,753		

Accruals for environmental matters are included in the consolidated balance sheets as follows:

	<u> </u>	December 31,				
	201	.9	2018			
		(Thousands of Dollars)				
Accrued liabilities	\$	4,837	\$	4,349		
Other long-term liabilities		3,101		3,404		
Accruals for environmental matters	\$	7,938	\$	7,753		

16. COMMITMENTS AND CONTINGENCIES

Contingencies

We have contingent liabilities resulting from various litigation, claims and commitments. We record accruals for loss contingencies when losses are considered probable and can be reasonably estimated. Legal fees associated with defending the Partnership in legal matters are expensed as incurred. We accrued \$3.7 million and \$2.8 million for contingent losses as of December 31, 2019 and 2018, respectively. The amount that will ultimately be paid related to such matters may differ from the recorded accruals, and the timing of such payments is uncertain. We evaluate each contingent loss at least quarterly, and more frequently as each matter progresses and develops over time, and we do not believe that the resolution of any particular claim or proceeding, or all matters in the aggregate, would have a material adverse effect on our results of operations, financial position or liquidity.

Commitments

Future minimum rental payments applicable to all noncancellable purchase obligations as of December 31, 2019 are as follows:

]	Payme	ents Due by Perio	od					
	2020		2021 20			2023			2024	There- after		Total	
						(Tho	usands of Dollars))					
Purchase obligations	\$	8,935	\$ 7,643	\$	6,202	\$	1,485	\$	812	\$	5,157	\$	30,234

Our purchase obligations primarily consist of an eleven-year chemical supply agreement related to our pipelines that terminates in 2022 and various service agreements with information technology providers.

17. LEASE ASSETS AND LIABILITIES

Transition

On January 1, 2019, we adopted Accounting Standards Codification Topic 842, "Leases" (ASC Topic 842) using the modified retrospective method. Results for reporting periods beginning after January 1, 2019 are presented under ASC Topic 842. In accordance with the modified retrospective approach, prior period amounts were not adjusted and are reported under ASC Topic 840, "Leases." As a result of the adoption of ASC Topic 842, we recorded right-of-use assets and lease liabilities of approximately \$207.0 million and \$192.0 million, respectively, as of January 1, 2019. The adoption of ASC Topic 842 had an immaterial impact on our results of operations and cash flows.

We elected the following practical expedients permitted under the transition guidance within the new standard:

- the package of practical expedients, which, among other things, allowed us to carry forward historical lease classification;
- the practical expedient specifically related to land easements, which, among other things, allowed us to carry forward our historical accounting treatment for existing land easement agreements;
- the lessee practical expedient to combine lease and non-lease components for all of our asset classes except the other pipeline and terminal
 equipment asset class; and
- the lessor practical expedient to combine lease and non-lease components and to account for the transaction based on the predominant component (i.e., ASC Topic 842 or ASC Topic 606, "Revenue from Contracts with Customers"). We apply this expedient to certain contracts in which we agree to provide both storage capacity and optional services to customers.

We record all leases on our consolidated balance sheet except for those leases with an initial term of 12 months or less, which are expensed on a straight-line basis over the lease term. We use judgment in determining the reasonably certain lease term and consider factors such as the nature and utility of the leased asset, as well as the importance of the leased asset to our operations. We calculate the present value of our lease liabilities based upon our incremental borrowing rate unless the rate implicit in the lease is readily determinable.

Lessee Arrangements

Our operating leases consist primarily of land and dock leases at various terminal facilities. As of December 31, 2019, land and dock leases have remaining terms generally of up to 6 years and include options to extend, some up to 20 years, which we are reasonably certain to exercise.

The primary component of our finance lease portfolio is a dock at a terminal facility, which includes a commitment for minimum dockage and wharfage throughput volumes. The dock lease has a remaining initial term of 1 year and four additional five-year renewal periods, all of which we are reasonably certain to exercise. We historically accounted for the dock lease under legacy build-to-suit accounting guidance, which was eliminated by ASC Topic 842.

Certain of our leases are subject to variable payment arrangements, the most notable of which include:

- dockage and wharfage charges, which are based on volumes moved over leased docks and are included in our calculation of our lease payments
 based on minimum throughput volume requirements. We recognize charges on excess throughput volumes in profit or loss in the period in which the
 obligation for those payments is incurred; and
- consumer price index adjustments, which are measured and included in the calculation of our lease payments based on the consumer price index at the adoption date or, after adoption, at the commencement date. We recognize changes in lease payments as a result of changes in the consumer price index in profit or loss in the period in which those payments are made.

Right-of-use assets and lease liabilities included in our consolidated balance sheet were as follows:

	Balance Sheet Location				
		(Thousands of Dollars)		
Right-of-Use Assets:					
Operating	Other long-term assets, net	\$	81,219		
Finance	Property, plant and equipment, net of accumulated amortization of \$3,748	\$	74,953		
Lease Liabilities:					
Operating:					
Current	Accrued liabilities	\$	10,416		
Noncurrent	Other long-term liabilities		70,083		
Total operating lease liabilities		\$	80,499		
Finance:					
Current	Short-term debt and current portion of finance leases	\$	4,546		
Noncurrent	Long-term debt, less current portion		55,446		
Total finance lease liabilities		\$	59,992		

As of December 31, 2019, maturities of our operating and finance lease liabilities were as follows:

	Operating Leases	l	Finance Leases
	(Thousand	ls of Dolla	rs)
2020	\$ 12,647	\$	6,702
2021	9,419		5,252
2022	8,717		4,582
2023	7,605		4,480
2024	6,739		4,067
Thereafter	60,354		59,681
Total lease payments	\$ 105,481	\$	84,764
Less: Interest	24,982		24,772
Present value of lease liabilities	\$ 80,499	\$	59,992

Costs incurred for leases, including costs associated with discontinued operations, were as follows:

	Year Ended	l December 31, 2019
	(Thous	ands of Dollars)
Operating lease cost	\$	29,167
Finance lease cost:		
Amortization of right-of-use assets		3,748
Interest expense on lease liability		2,212
Short-term lease cost		19,140
Variable lease cost		6,990
Total lease cost	\$	61,257

Rental expense for operating leases (pursuant to ASC Topic 840) totaled \$42.9 million and \$36.2 million for the years ended December 31, 2018 and 2017, respectively, including rental expense reported in "(Loss) income from discontinued operations, net of tax" on the consolidated statements of (loss) income.

The table below presents additional information regarding our leases:

	 Operating Leases		Finance Leases		
	(Thousands of Dollars, Except Term and Rate Data)				
For the year ended December 31, 2019:					
Cash outflows from operating activities	\$ 27,567	\$	2,027		
Cash outflows from financing activities	\$ _	\$	3,700		
Right-of-use assets obtained in exchange for lease liabilities	\$ 2,153	\$	4,430		
As of December 31, 2019:					
Weighted-average remaining lease term (in years)	15		20		
Weighted-average discount rate	3.6%		3.7%		

Lessor Arrangements

We have entered into certain revenue arrangements where we are considered to be the lessor. Under the largest of these arrangements, we lease certain of our storage tanks in exchange for a fixed fee, subject to an annual consumer price index adjustment. The operating leases commenced on January 1, 2017, and have initial terms of 10 years with successive automatic renewal terms. We recognized lease revenues from these leases of \$40.8 million for the year ended December 31, 2019, which are included in "Service revenues" in the consolidated statements of (loss) income. As of December 31, 2019, we expect to receive minimum lease payments totaling \$273.7 million, based upon the consumer price index as of the adoption date. We will recognize these payments ratably over the remaining initial lease term. As of December 31, 2019, the cost and accumulated depreciation of lease storage assets, which are included in our "Pipeline, storage and terminals" asset class within property, plant and equipment and have an estimated useful life of 30 years, total \$238.2 million and \$121.5 million, respectively.

18. DERIVATIVES AND FAIR VALUE MEASUREMENTS

Derivative Instruments

We utilize various derivative instruments to manage our exposure to interest rate risk and commodity price risk. Our risk management policies and procedures are designed to monitor interest rates, futures and swap positions and over-the-counter positions, as well as physical commodity volumes, grades, locations and delivery schedules, to help ensure that our hedging activities address our market risks.

The results of operations for the fuels marketing segment depend largely on the margin between our cost and the sales prices of the products we market. Therefore, the results of operations for this segment are more sensitive to changes in commodity prices compared to the operations of the pipeline and storage segments. Since our fuels marketing operations expose us to commodity price risk, we enter into derivative instruments to mitigate the effect of commodity price fluctuations on our operations. Derivative financial instruments associated with commodity price risk with respect to our petroleum product inventories and related firm commitments to purchase and/or sell such inventories were not material for any period presented.

Interest Rate Risk. We are a party to certain interest rate swap agreements that terminate in September 2020 to manage our exposure to changes in interest rates, which consist of forward-starting interest rate swap agreements related to a forecasted debt issuance in 2020. We entered into these swaps in order to hedge the risk of fluctuations in the required interest payments attributable to changes in the benchmark interest rate during the period from the effective date of the swap to the issuance of the forecasted debt. Under the terms of the swaps, we pay a fixed rate and receive a rate based on the three-month USD LIBOR. These swaps qualify as cash flow hedges, and we designate them as such. We record the effective portion of mark-to-market adjustments as a component of AOCI, and the amount in AOCI will be recognized in "Interest expense, net" as the forecasted interest payments occur or if the interest payments are probable not to occur. As of December 31, 2019 and 2018, the aggregate notional amount of forward-starting interest rate swaps totaled \$250.0 million. In April 2018, in connection with the maturity of the 7.65% senior notes due April 15, 2018, we terminated forward-starting interest rate swaps with an aggregate notional amount of \$350.0 million and received \$8.0 million. The termination payments are included in cash flows from financing activities on the consolidated statements of cash flows.

The remaining fair value amounts associated with unwound interest rate swap agreements are presented in the table below. These amounts are amortized ratably over the remaining life of the related debt instrument into "Interest expense, net" on the consolidated statements of (loss) income.

		 Dece	mber 31,	
Unwound Interest Rate Swap Agreements	Balance Sheet Location	 2019	2018	
		(Thousand	ls of Dollar	rs)
Fixed-to-floating	Current portion of long-term debt	\$ 2,755	\$	_
Fixed-to-floating	Long-term debt, less current portion	\$ 2,568	\$	10,475
Forward-starting	Accumulated other comprehensive income (loss)	\$ 3,045	\$	(770)

The fair values of our interest rate swap agreements included in our consolidated balance sheets were as follows:

	 Decem	ıber 31,	
Balance Sheet Location	 2019	2	2018
	(Thousands of Dollars)		
Other long-term assets, net	\$ _	\$	627
Accrued liabilities	\$ (19,169)	\$	_
Other long-term liabilities	\$ _	\$	(751)

Our forward-starting interest rate swaps had the following impact on earnings:

	 Year Ended December 31,					
	 2019	2018		2017		
		(Thousands of Dolla	rs)			
(Loss) gain recognized in other comprehensive income (loss) on derivative	\$ (19,045)	\$ 17,91	2 \$	(8,670)		
Loss reclassified from AOCI into interest expense, net	\$ (3,814)	\$ (5,49	9) \$	(6,624)		

As of December 31, 2019, we expect to reclassify a loss of \$2.4 million to "Interest expense, net" within the next twelve months associated with unwound forward-starting interest rate swap agreements.

Fair Value Measurements

We segregate the inputs used in measuring fair value into three levels: Level 1, defined as observable inputs such as quoted prices for identical assets or liabilities in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable, such as quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in markets that are not active; and Level 3, defined as unobservable inputs for which little or no market data exists. We consider counterparty credit risk and our own credit risk in the determination of all estimated fair values.

Recurring Fair Value Measurements. Because we estimate the fair value of our forward-starting interest rate swaps using discounted cash flows, which use observable inputs such as time to maturity and market interest rates, we include interest rate swaps in Level 2 of the fair value hierarchy.

Fair Value of Financial Instruments

We recognize cash equivalents, receivables, payables and debt in our consolidated balance sheets at their carrying amounts. The fair values of these financial instruments, except for long-term debt other than finance leases, approximate their carrying amounts. The estimated fair values and carrying amounts of the long-term debt, including the current portion and excluding finance leases, were as follows:

	 December 31, 2019 Dece		Decemb	ecember 31, 2018	
	(Thousands of Dollars)				
Fair value	\$	3,442,001	\$	3,056,704	
Carrying amount	\$	3,331,839	\$	3,111,996	

We have estimated the fair value of our publicly traded notes based upon quoted prices in active markets; therefore, we determined that the fair value of our publicly traded notes falls in Level 1 of the fair value hierarchy. With regard to our other debt, for which a quoted market price is not available, we have estimated the fair value using a discounted cash flow analysis using current incremental borrowing rates for similar types of borrowing arrangements and determined that the fair value falls in Level 2 of the fair value hierarchy.

19. SERIES D CUMULATIVE CONVERTIBLE PREFERRED UNITS

Purchase Agreement and Issuance of Series D Preferred Units

On June 26, 2018, the Partnership entered into a purchase agreement (the Series D Preferred Unit Purchase Agreement) with investment funds, accounts and entities (collectively, the Purchasers) managed by EIG Management Company, LLC and FS/EIG Advisors, LLC to issue and sell \$590.0 million of Series D Cumulative Convertible Preferred Units (Series D Preferred Units) in a private placement. The Partnership issued a total of 23,246,650 Series D Preferred Units to the Purchasers at a price of \$25.38 per Series D Preferred Unit (the Series D Preferred Unit Purchase Price). At the initial closing on June 29, 2018 (the Initial Closing), the Purchasers purchased 15,760,441 Series D Preferred Units for \$400.0 million, and we received net proceeds of \$370.7 million. The Purchasers purchased the remaining 7,486,209 Series D Preferred Units for \$190.0 million at a second closing on July 13, 2018. The net proceeds to the Partnership from the sale of the Series D Preferred Units of \$555.8 million, including deductions for a 3.5% transaction fee of \$20.7 million paid to the Purchasers and other issuance costs of \$13.5 million, were used for general partnership purposes, including repayment of outstanding borrowings under our Revolving Credit Agreement.

Series D Preferred Units Rights

At the Initial Closing and pursuant to the Series D Preferred Unit Purchase Agreement, the Partnership amended and restated its partnership agreement to authorize and establish the rights, preferences and privileges of the Series D Preferred Units. The Series D Preferred Units rank equal to other classes of preferred units and senior to common units in the Partnership with respect to distribution rights upon liquidation. The Series D Preferred Units generally will vote on an as-converted basis with the common units and will have certain class voting rights with respect to a limited number of matters as set forth in the partnership agreement.

Series D Preferred Units Distributions

Distributions on the Series D Preferred Units are payable out of any legally available funds, accrue and are cumulative from the issuance dates and are payable on the 15th day (or next business day) of each of March, June, September and December, beginning September 17, 2018, to holders of record on the first business day of each payment month. The distribution rate on the Series D Preferred Units is: (i) 9.75% per annum (\$57.6 million per annum) for the first two years; (ii) 10.75% per annum (\$63.4 million per annum) for years three through five; and (iii) the greater of 13.75% per annum (\$81.1 million per annum) or the distribution per common unit thereafter. While the Series D Preferred Units are outstanding, the Partnership will be prohibited from paying distributions on any junior securities, including the common units, unless full cumulative distributions on the Series D Preferred Units (and any parity securities) have been, or contemporaneously are being, paid or set aside for payment through the most recent Series D Preferred Unit distribution payment date. Any Series D Preferred Unit distributions in excess of \$0.635 per unit may be paid, in the Partnership's sole discretion, in additional Series D Preferred Units, with the remainder paid in cash.

If we fail to pay in full any Series D Preferred Unit distribution amount, then, until we pay such distributions in full, the applicable distribution rate for each of those distribution periods shall be increased by \$0.048 per Series D Preferred Unit. In addition, if we fail to pay in full any Series D Preferred Unit distribution amount for three consecutive distribution periods, then until we pay such distributions in full: (i) each holder of the Series D Preferred Units may elect to convert its Series D Preferred Units into common units on a one-for-one basis, plus any unpaid Series D distributions, (ii) one person selected by the holders holding a majority of the outstanding Series D Preferred Units shall become an additional member of our board of directors and (iii) we will not be permitted to incur any indebtedness (as defined in the Revolving Credit Agreement) or engage in any acquisitions or asset sales in excess of \$50.0 million without the consent of the holders holding a majority of the outstanding Series D Preferred Units. In addition, we will permanently lose the ability to pay any part of the distributions on the Series D Preferred Units in the form of additional Series D Preferred Units.

In January 2020, our board of directors declared a distribution of \$0.619 per Series D Preferred Unit to be paid on March 16, 2020.

Series D Preferred Units Conversion and Redemption Features

At any time on or after June 29, 2020, each holder of Series D Preferred Units may convert all or any portion of its Series D Preferred Units into common units on a one-for-one basis (plus any unpaid Series D distributions), subject to anti-dilution adjustments, at any time, but not more than once per quarter, so long as any conversion is for at least \$50.0 million based on the Series D Preferred Unit Purchase Price (or such lesser amount representing all of a holder's Series D Preferred Units).

The Partnership may redeem all or any portion of the Series D Preferred Units, in an amount not less than \$50.0 million for cash at a redemption price equal to, as applicable: (i) \$31.73 per Series D Preferred Unit at any time on or after June 29, 2023 but prior to June 29, 2024; (ii) \$30.46 per Series D Preferred Unit at any time on or after June 29, 2024 but prior to June 29, 2025; (iii) \$29.19 per Series D Preferred Unit at any time on or after June 29, 2025; plus, in each case, the sum of any unpaid distributions on the applicable Series D Preferred Unit plus the distributions prorated for the number of days elapsed (not to exceed 90) in the period of redemption (Series D Partial Period Distributions). The holders have the option to convert the units prior to such redemption as discussed above.

Additionally, at any time on or after June 29, 2028, each holder of Series D Preferred Units will have the right to require the Partnership to redeem all of the Series D Preferred Units held by such holder at a redemption price equal to \$29.19 per Series D Preferred Unit plus any unpaid Series D distributions plus the Series D Partial Period Distributions. If a holder of Series D Preferred Units exercises its redemption right, the Partnership may elect to pay up to 50% of such amount in common units (which shall be valued at 93% of a volume-weighted average trading price of the common units); provided, that the common units to be issued do not, in the aggregate, exceed 15% of NuStar Energy's common equity market capitalization at the time.

Series D Preferred Units Change of Control

Upon certain events involving a change of control, each holder of the Series D Preferred Units may elect to: (i) convert its Series D Preferred Units into common units on a one-for-one basis, plus any unpaid Series D distributions; (ii) require the Partnership to redeem its Series D Preferred Units for an amount equal to the sum of (a) \$29.82 per Series D Preferred Unit plus (b) any unpaid Series D distributions plus (c) the applicable distribution amount for the distribution periods ending after the change of control event and prior to (but including) the fourth anniversary of the Initial Closing; (iii) if the Partnership is the surviving entity and its common units continue to be listed, continue to hold its Series D Preferred Units; or (iv) if the Partnership will not be the surviving entity, or it will be the surviving entity but its common units will cease to be listed, require the Partnership to use its commercially reasonable efforts to deliver a security in the surviving entity that has substantially similar terms as the Series D Preferred Units; however, if the Partnership is unable to deliver a mirror security, each holder is still entitled to option (i) or (ii) above.

Registration Rights Agreement

On June 29, 2018, in connection with the Initial Closing and pursuant to the Series D Preferred Unit Purchase Agreement, the Partnership entered into a Registration Rights Agreement (the Registration Rights Agreement) with the Purchasers relating to the registration of the Series D Preferred Units and common units issuable upon conversion of the Series D Preferred Units (the Common Unit Registrable Securities, and, collectively with the Series D Preferred Units, the Registrable Securities). Pursuant to the Registration Rights Agreement, the Partnership is required to use its commercially reasonable efforts to file a registration statement and to cause such registration statement to become effective: (i) with respect to the Common Unit Registrable Securities, no later than one year after the Initial Closing; and (ii) with respect to the Series D Preferred Units, after the second anniversary of the Initial Closing, no later than one year after receipt by the Partnership of a written request from holders holding a majority of the Series D Preferred Units to register the Series D Preferred Units. In April 2019, the Securities and Exchange Commission declared effective the registration statement on Form S-3 filed by NuStar Energy to register the Common Unit Registrable Securities. With respect to the Series D Preferred Units, if the Partnership fails to cause such registration statement to become effective by the applicable date, the Partnership will be required to pay certain amounts to the holders of the Registrable Securities as liquidated damages.

Series D Preferred Units Accounting Treatment

The Series D Preferred Units include redemption provisions at the option of the holders of the Series D Preferred Units and upon a Series D Change of Control (as defined in the partnership agreement), which are outside the Partnership's control. Therefore, the Series D Preferred Units are presented in the mezzanine section of the consolidated balance sheets. The Series D Preferred Units have been recorded at their issuance date fair value, net of issuance costs. We reassess the presentation of the Series D Preferred Units in our consolidated balance sheets on a quarterly basis.

The Series D Preferred Units are subject to accretion from their carrying value at the issuance date to the redemption value, which is based on the redemption right of the Series D Preferred Unit holders that may be exercised at any time on or after June 29, 2028, using the effective interest method over a period of ten years. In the calculation of net income per unit, the accretion is treated in the same manner as a distribution and deducted from net income to arrive at net income attributable to common units.

20. PARTNERS' EQUITY

Please refer to Note 4 for a discussion of the Merger.

Partnership Agreement Amendments

In the third quarter of 2018, NuStar Energy's partnership agreement was amended and restated to, among other things, (i) cancel the incentive distribution rights held by our general partner, (ii) convert the 2% general partner interest in NuStar Energy held by our general partner into a non-economic management interest and (iii) provide the holders of our common units with voting rights in the election of the members of the board of directors of NuStar GP, LLC, beginning at the annual meeting in 2019. The partnership agreement was also amended and restated in the second quarter of 2018 in connection with the issuance of our Series D Preferred Units discussed in Note 19. In 2017, the partnership agreement was amended and restated in connection with the issuances of our Series B Preferred Units and Series C Preferred Units described below, and in connection with the Navigator Acquisition to waive certain distributions to our general partner.

Series A, B and C Preferred Units

The following is a summary of our Series A, Series B and Series C Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units (collectively the Series A, B and C Preferred Units) issued and outstanding as of December 31, 2019:

Units	Original Issuance Date	Number of Units Issued and Outstanding	Price per Unit		Net Proceeds (in millions)		Price per Unit mi		Fixed Distribution Rate per Annum (as a Percentage of the \$25.00 Liquidation Preference per Unit)	Ra	Fixed Fixed Distribution Rate per Unit per Annum (in per Annum thousands)		Optional Redemption Date/Date at Which Distribution Rate Becomes Floating	Floating Annual Rate (as a Percentage of the \$25.00 Liquidation Preference per Unit)
Series A Preferred Units	November 25, 2016	9,060,000	\$	25.00	\$	218.4	8.50%	\$	2.125	\$	19,252	December 15, 2021	Three-month LIBOR plus 6.766%	
Series B Preferred Units	April 28, 2017	15,400,000	\$	25.00	\$	371.8	7.625%	\$	1.90625	\$	29,357	June 15, 2022	Three-month LIBOR plus 5.643%	
Series C Preferred Units	November 30, 2017	6,900,000	\$	25.00	\$	166.7	9.00%	\$	2.25	\$	15,525	December 15, 2022	Three-month LIBOR plus 6.88%	

We may redeem any of our outstanding Series A, B and C Preferred Units at any time on or after the optional redemption date set forth above for each series of the Series A, B and C Preferred Units, in whole or in part, at a redemption price of \$25.00 per unit plus an amount equal to all accumulated and unpaid distributions to, but not including, the date of redemption, whether or not declared. We may also redeem the Series A, B and C Preferred Units upon the occurrence of certain rating events or a change of control as defined in our partnership agreement. In the case of the latter instance, if we choose not to redeem the Series A, B and C Preferred Units, those preferred unitholders may have the ability to convert their Series A, B and C Preferred Units to common units at the then applicable conversion rate. Holders of the Series A, B and C Preferred Units have no voting rights except for certain exceptions set forth in our partnership agreement.

Distributions on the Series A, B and C Preferred Units are payable out of any legally available funds, accrue and are cumulative from the original issuance dates, and are payable on the 15th day (or the next business day) of each of March, June, September and December of each year to holders of record on the first business day of each payment month. The Series A, B and C Preferred Units rank equal to each other and to the Series D Preferred Units, and senior to all of our other classes of equity securities with respect to distribution rights and rights upon liquidation.

In January 2020, our board of directors declared quarterly distributions with respect to the Series A, B and C Preferred Units to be paid on March 16, 2020.

Common Units and General Partner

Issuances of Common Units. In the fourth quarter of 2019, we issued 527,426 common units at a price of \$28.44 per unit to William E. Greehey, Chairman of the Board of Directors of NuStar GP, LLC. We used the proceeds of \$15.0 million from the sale of these units for general partnership purposes.

As a result of the Merger discussed in Note 4, we issued approximately 13.4 million incremental NuStar Energy common units in the third quarter of 2018, in exchange for the previously outstanding Holdings units.

In the second quarter of 2018, we issued 413,736 common units at a price of \$24.17 per unit to William E. Greehey. We used the proceeds of \$10.2 million from the sale of these units, including a contribution of \$0.2 million from our general partner to maintain the 2% general partner economic interest it owned at that time, for general partnership purposes.

In the second quarter of 2017, we issued 14,375,000 common units at a price of \$46.35 per unit. We used the net proceeds from this offering of \$657.5 million, including a contribution of \$13.6 million from our general partner to maintain the 2% general partner economic interest it owned at that time, to fund a portion of the purchase price for the Navigator Acquisition.

The following table shows the balance of and changes in the number of our common units outstanding:

		Year Ended December 31,				
	2019	2018	2017			
Balance as of the beginning of year	107,225,156	93,176,683	78,616,228			
Issuance of units	527,426	413,736	14,375,000			
Unit-based compensation (refer to Note 24 for discussion)	775,224	225,144	185,455			
Merger (refer to Note 4 for discussion)	_	13,409,593	_			
Balance as of the end of year	108,527,806	107,225,156	93,176,683			

Cash Distributions. We make quarterly distributions to common unitholders, and, prior to the Merger, made quarterly distributions to the general partner of 100% of our "Available Cash," generally defined as cash receipts less cash disbursements, including distributions to our preferred units, and cash reserves established by the general partner, in its sole discretion. These quarterly distributions are declared and paid within 45 days subsequent to each quarter-end. The common unitholders receive a distribution each quarter as determined by the board of directors, subject to limitation by the distributions in arrears, if any, on our preferred units. Prior to the Merger, our Available Cash was distributed based on the percentages shown below:

	Percentag	e of Distribution
Quarterly Distribution Amount Per Common Unit	Common Unitholders	General Partner Including Incentive Distributions
Up to \$0.60	98%	2%
Above \$0.60 up to \$0.66	90%	10%
Above \$0.66	75%	25%

Because the Merger was effective prior to the record date for the distribution for the second quarter of 2018, the general partner received no distributions after the first quarter of 2018 distribution. The following table reflects the allocation of total cash distributions to the general partner and common limited partners applicable to the period in which the distributions were earned:

	 Year Ended December 31,					
	2019		2017			
	(Thousa	ands of Dollars, Except Per U	nit Data)			
General partner interest	\$ _	\$ 1,141	\$	9,252		
General partner incentive distribution	_	_		45,669		
Total general partner distribution	 	1,141		54,921		
Common limited partners' distribution	259,136	248,705		407,681		
Total cash distributions	\$ 259,136	\$ 249,846	\$	462,602		
Cash distributions per unit applicable to common limited partners	\$ 2.40	\$ 2.40	\$	4.38		

The following table summarizes information about quarterly cash distributions declared for our common limited partners applicable to the year ended December 31, 2019:

Quarter Ended	Cash Distributions Per Unit				 Total Cash Distributions	Record Date	Payment Date
			(Thousands of Dollars)				
December 31, 2019	\$	0.60	\$ 65,128	February 10, 2020	February 14, 2020		
September 30, 2019	\$	0.60	\$ 64,660	November 8, 2019	November 14, 2019		
June 30, 2019	\$	0.60	\$ 64,658	August 7, 2019	August 13, 2019		
March 31, 2019	\$	0.60	\$ 64,690	May 8, 2019	May 14, 2019		

Net Income Applicable to the General Partner. For the year ended December 31, 2018, net income applicable to the general partner totaled \$2.5 million and related to the general partner interest allocation prior to the Merger. The following table details the calculation of net income applicable to the general partner for 2017:

		Year Ended cember 31, 2017
	(Tho	usands of Dollars)
Net income attributable to NuStar Energy L.P.	\$	147,964
Less preferred limited partner interest		40,448
Less general partner incentive distribution		45,669
Net income after general partner incentive distribution and preferred		
limited partner interest		61,847
General partner interest allocation		2%
General partner interest allocation of net income		1,237
General partner incentive distribution		45,669
Net income applicable to general partner	\$	46,906

Accumulated Other Comprehensive Income (Loss)

The balance of and changes in the components included in AOCI were as follows:

	 Foreign Currency Translation	c	ash Flow Hedges	Pension and Other Postretirement Benefits	Total
			(Thousands	of Dollars)	
Balance as of January 1, 2017	\$ (69,069)	\$	(22,258)	\$ (2,850)	\$ (94,177)
Other comprehensive income (loss) before reclassification adjustments	17,466		(8,670)	(4,641)	4,155
Net gain on pension costs reclassified into operating expense	_		_	(1,143)	(1,143)
Net gain on pension costs reclassified into general and administrative expense	_		_	(386)	(386)
Net loss on cash flow hedges reclassified into interest expense, net	_		6,624	_	6,624
Other comprehensive income (loss)	17,466		(2,046)	(6,170)	9,250
Balance as of December 31, 2017	(51,603)		(24,304)	(9,020)	(84,927)
Other comprehensive (loss) income before reclassification adjustments	(13,880)		17,912	3,282	7,314
Sale of European Operations reclassified into other income, net	18,124		_	_	18,124
Net gain on pension costs reclassified into other income, net	_		_	(814)	(814)
Net loss on cash flow hedges reclassified into interest expense, net	_		5,499	_	5,499
Other	60		_	(134)	(74)
Other comprehensive income	4,304		23,411	2,334	30,049
Balance as of December 31, 2018	(47,299)		(893)	(6,686)	(54,878)
Other comprehensive income (loss) before reclassification adjustments	3,527		(19,045)	1,000	(14,518)
Net gain on pension costs reclassified into other income, net	_		_	(2,314)	(2,314)
Net loss on cash flow hedges reclassified into interest expense, net	_		3,814	_	3,814
Other comprehensive income (loss)	3,527		(15,231)	(1,314)	(13,018)
Balance as of December 31, 2019	\$ (43,772)	\$	(16,124)	\$ (8,000)	\$ (67,896)

21. NET (LOSS) INCOME PER COMMON UNIT

As discussed in Note 19, the Series D Preferred Units are convertible into common units at the option of the holder at any time on or after June 29, 2028. As such, we calculated the dilutive effect of the Series D Preferred Units using the if-converted method. The effect of the assumed conversion of the Series D Preferred Units outstanding was antidilutive for each of the years ended December 31, 2019 and 2018; therefore, we did not include such conversion in the computation of diluted net (loss) income per common unit.

Contingently issuable performance units are included as dilutive potential common units if it is probable that the performance measures will be achieved. Refer to Note 24 for additional discussion.

The following table details the calculation of net (loss) income per common unit:

		Year E	Ended December 31	,	
	 2019		2018		2017
	 (Thousands o	f Dolla	rs, Except Unit and l	Per Un	it Data)
Net (loss) income	\$ (105,693)	\$	205,794	\$	147,964
Distributions to preferred limited partners	(121,693)		(92,540)		(40,448)
Distributions to general partner (including incentive distribution rights)	_		(1,141)		(54,921)
Distributions to common limited partners	(259,136)		(248,705)		(407,681)
Distribution equivalent rights to restricted units	(2,659)		(2,045)		(2,965)
Distributions in excess of (loss) income	\$ (489,181)	\$	(138,637)	\$	(358,051)
Distributions to common limited partners	\$ 259,136	\$	248,705	\$	407,681
Allocation of distributions in excess of (loss) income	(489,181)		(138,659)		(350,890)
Series D Preferred Unit accretion (refer to Note 19)	(18,085)		(8,195)		_
Loss to common unitholders attributable to the Merger (refer to Note 4)	_		(377,079)		_
Net (loss) income attributable to common units	\$ (248,130)	\$	(275,228)	\$	56,791
Basic weighted-average common units outstanding	107,789,030		99,490,495		88,825,964
Diluted common units outstanding:					
Basic weighted-average common units outstanding	107,789,030		99,490,495		88,825,964
Effect of dilutive potential common units	65,669		40,677		_
Diluted weighted-average common units outstanding	107,854,699		99,531,172		88,825,964
Basic and diluted net (loss) income per common unit	\$ (2.30)	\$	(2.77)	\$	0.64

22. STATEMENTS OF CASH FLOWS

Changes in current assets and current liabilities were as follows:

			Year Ended December 31	,	
		2017			
			(Thousands of Dollars)		
Decrease (increase) in current assets:					
Accounts receivable	\$	(23,480)	\$ 22,482	\$	(865)
Receivable from related party		_	160		112
Inventories		(866)	3,819		11,936
Prepaid and other current assets		(5,103)	3,694		3,393
Increase (decrease) in current liabilities:					
Accounts payable		8,068	8,003		(30,409)
Accrued interest payable		1,632	(4,279)		6,489
Accrued liabilities		(19,614)	39,577		(11,157)
Taxes other than income tax		(5,276)	4,521		(3,529)
Income tax payable		(126)	285		(2,463)
Changes in current assets and current liabilities	\$	(44,765)	\$ 78,262	\$	(26,493)

The above changes in current assets and current liabilities differ from changes between amounts reflected in the applicable consolidated balance sheets due to:

- the change in the amount accrued for capital expenditures;
- the effect of foreign currency translation;
- changes in the fair values of our interest rate swap agreements;
- the recognition of lease liabilities upon the adoption of ASC Topic 842;
- the reclassification of certain assets and liabilities to "Assets held for sale" and "Liabilities held for sale" on the consolidated balance sheets (please refer to Note 5 for additional discussion); and
- · current assets and current liabilities acquired and disposed of during the period.

Cash flows related to interest and income taxes were as follows:

		Year	Ended December 31,	
	2019		2018	2017
		(Th	ousands of Dollars)	
Cash paid for interest, net of amount capitalized	\$ 176,859	\$	183,078	\$ 158,089
Cash paid for income taxes, net of tax refunds received	\$ 6,817	\$	8,535	\$ 11,338

As of December 31, 2019, restricted cash is included in "Other long-term assets, net" on the consolidated balance sheet. "Cash, cash equivalents and restricted cash" on the consolidated statements of cash flows was included in the consolidated balance sheets as follows:

	De	ecember 31, 2019	December 31, 2018		
		(Thousand	s of Dollars	s)	
Cash and cash equivalents	\$	16,192	\$	11,529	
Other long-term assets, net		8,788		_	
Assets held for sale		_		2,115	
Cash, cash equivalents and restricted cash	\$	24,980	\$	13,644	

23. EMPLOYEE BENEFIT PLANS

Thrift Plans

The NuStar Thrift Plan (the Thrift Plan) is a qualified defined contribution plan that became effective June 26, 2006. Participation in the Thrift Plan is voluntary and open to substantially all our domestic employees upon their dates of hire. Thrift Plan participants can contribute from 1% up to 30% of their total annual compensation to the Thrift Plan in the form of pre-tax and/or after tax employee contributions. We make matching contributions in an amount equal to 100% of each participant's employee contributions up to a maximum of 6% of the participant's total annual compensation. The matching contributions to the Thrift Plan for the years ended December 31, 2019, 2018 and 2017 totaled \$7.6 million, \$7.4 million and \$6.9 million, respectively.

The NuStar Excess Thrift Plan (the Excess Thrift Plan) is a nonqualified deferred compensation plan that became effective July 1, 2006. The Excess Thrift Plan provides benefits to those employees whose compensation and/or annual contributions under the Thrift Plan are subject to the limitations applicable to qualified retirement plans under the Code.

We also maintain other defined contribution plans for certain international employees located in Canada. We maintained plans for international employees in the Caribbean Netherlands, United Kingdom and Netherlands prior to the St. Eustatius Disposition and the European Disposition on July 29, 2019 and November 30, 2018, respectively. For the years ended December 31, 2019, 2018 and 2017, our costs for these plans totaled \$0.9 million, \$2.5 million, respectively.

Pension and Other Postretirement Benefits

The NuStar Pension Plan (the Pension Plan) is a qualified non-contributory defined benefit pension plan that provides eligible U.S. employees with retirement income as calculated under a cash balance formula. Under the cash balance formula, benefits are determined based on age, years of vesting service and interest credits, and employees become fully vested in their benefits upon attaining three years of vesting service. Prior to January 1, 2014, eligible employees were covered under either a cash balance formula or a final average pay formula (FAP). Effective January 1, 2014, the Pension Plan was amended to freeze the FAP benefits as of December 31, 2013, and going forward, all eligible employees are covered under the cash balance formula discussed above.

We also maintain an excess pension plan (the Excess Pension Plan), which is a nonqualified deferred compensation plan that provides benefits to a select group of management or other highly compensated employees. Neither the Excess Thrift Plan nor the Excess Pension Plan is intended to constitute either a qualified plan under the provisions of Section 401 of the Code or a funded plan subject to the Employee Retirement Income Security Act.

The Pension Plan and Excess Pension Plan are collectively referred to as the Pension Plans in the tables and discussion below. Our other postretirement benefit plans include a contributory medical benefits plan for U.S. employees who retired prior to April 1, 2014 and, for employees who retire on or after April 1, 2014, a partial reimbursement for eligible third-party health care premiums. We use December 31 as the measurement date for our pension and other postretirement plans.

The changes in the benefit obligation, the changes in fair value of plan assets, the funded status and the amounts recognized in the consolidated balance sheets for our Pension Plans and other postretirement benefit plans as of and for the years ended December 31, 2019 and 2018 were as follows:

	 Pensio	ns		Other Pos Benef		
	2019		2018		2019	2018
			(Thousand	of D	ollars)	
Change in benefit obligation:						
Benefit obligation, January 1	\$ 141,833	\$	149,817	\$	10,908	\$ 12,410
Service cost	9,549		9,621		431	504
Interest cost	5,480		4,824		453	429
Benefits paid	(7,109)		(7,929)		(217)	(255)
Participant contributions	_		_		62	87
Actuarial loss (gain)	17,504		(14,500)		1,559	(2,267)
Benefit obligation, December 31	\$ 167,257	\$	141,833	\$	13,196	\$ 10,908
Change in plan assets:						
Plan assets at fair value, January 1	\$ 126,949	\$	129,878	\$	_	\$ _
Actual return on plan assets	28,064		(6,034)		_	_
Employer contributions	11,132		11,034		155	168
Benefits paid	(7,109)		(7,929)		(217)	(255)
Participant contributions	_		_		62	87
Plan assets at fair value, December 31	\$ 159,036	\$	126,949	\$	_	\$ _
Reconciliation of funded status:						
Fair value of plan assets at December 31	\$ 159,036	\$	126,949	\$	_	\$
Less: Benefit obligation at December 31	167,257		141,833		13,196	10,908
Funded status at December 31	\$ (8,221)	\$	(14,884)	\$	(13,196)	\$ (10,908)
Amounts recognized in the consolidated balance sheets (a):	 					
Accrued liabilities	\$ (303)	\$	(267)	\$	(368)	\$ (362)
Other long-term liabilities	(7,918)		(14,617)		(12,828)	(10,546)
Net pension liability	\$ (8,221)	\$	(14,884)	\$	(13,196)	\$ (10,908)

⁽a) For the Pension Plan, since assets exceed the present value of expected benefit payments for the next 12 months, all of the liability is noncurrent. For the Excess Pension Plan and the other postretirement benefit plans, since there are no assets, the current liability is the present value of expected benefit payments for the next 12 months; the remainder is noncurrent.

The accumulated benefit obligation is the present value of benefits earned to date, assuming no future salary increases. The aggregate accumulated benefit obligation for our Pension Plans as of December 31, 2019 and 2018 was \$164.2 million and \$139.7 million, respectively. As of December 31, 2019 and 2018, the aggregate accumulated benefit obligation for the Pension Plans exceeded plan assets.

The components of net periodic benefit cost (income) related to our Pension Plans and other postretirement benefit plans were as follows:

]	Pension Plans						er Postretirement Benefit Plans]			
	 Year Ended December 31,						Year Ended December 3				31,		
	2019 2018 2017						2019		2018		2017		
					(Thousands	of Do	ollars)						
Service cost	\$ 9,549	\$	9,621	\$	8,955	\$	431	\$	504	\$	456		
Interest cost	5,480		4,824		4,507		453		429		430		
Expected return on plan assets	(8,015)		(7,417)		(6,411)		_		_		_		
Amortization of prior service credit	(2,057)		(2,057)		(2,059)		(1,145)		(1,145)		(1,145)		
Amortization of net actuarial loss	846		2,174		1,484		42		214		191		
Net periodic benefit cost (income)	\$ 5,803	\$	7,145	\$	6,476	\$	(219)	\$	2	\$	(68)		

We amortize prior service costs and credits on a straight-line basis over the average remaining service period of employees expected to receive benefits under our Pension Plans and other postretirement benefit plans ("Amortization of prior service credit" in table above). We amortize the actuarial gains and losses that exceed 10% of the greater of the projected benefit obligation or market-related value of plan assets (smoothed asset value) over the average remaining service period of active employees expected to receive benefits under our Pension Plans and other postretirement benefit plans ("Amortization of net actuarial loss" in table above).

The service cost component of net periodic benefit cost (income) is reported in "General and administrative expenses" and "Operating expenses" on the consolidated statements of (loss) income, and the remaining components of net periodic benefit cost (income) are reported in "Other income (expense), net."

Adjustments to other comprehensive (loss) income related to our Pension Plans and other postretirement benefit plans were as follows:

		1	Pension Plans						er Postretiremen Benefit Plans	t	
	 Ye	ear E	nded December 3	31,			Y	ear E	nded December	31,	
	 2019	2019 2018 2017			2019			2018		2017	
					(Thousands	of Do	ollars)				
Net unrecognized gain (loss) arising during the year:											
Net actuarial gain (loss)	\$ 2,545	\$	1,049	\$	(4,235)	\$	(1,559)	\$	2,267	\$	(590)
Net (gain) loss reclassified into income:											
Amortization of prior service credit	(2,057)		(2,057)		(2,059)		(1,145)		(1,145)		(1,145)
Amortization of net actuarial loss	846		2,174		1,484		42		214		191
Net (gain) loss reclassified into income	(1,211)		117		(575)		(1,103)		(931)		(954)
Reclassification of stranded tax effects	_		(74)		_		_		_		_
Income tax benefit (expense)	14		(69)		162		_		(25)		22
Total changes to other comprehensive income (loss)	\$ 1,348	\$	1,023	\$	(4,648)	\$	(2,662)	\$	1,311	\$	(1,522)

The amounts recorded as a component of "Accumulated other comprehensive loss" on the consolidated balance sheets related to our Pension Plans and other postretirement benefit plans were as follows:

	 Pensio	n Plans			Other Post Benefi		nent
	 Decem	ber 31,					
	 2019		2018		2019		2018
			(Thousands	of Dollars	5)		
Unrecognized actuarial loss	\$ (24,564)	\$	(27,955)	\$	(3,190)	\$	(1,673)
Prior service credit	12,490		14,547		7,174		8,319
Deferred tax asset	90		76		_		_
Accumulated other comprehensive (loss) income, net of tax	\$ (11,984)	\$	(13,332)	\$	3,984	\$	6,646

The following pre-tax amounts in AOCI as of December 31, 2019 are expected to be recognized as components of net periodic benefit cost (income) in 2020:

	Pe	nsion Plans	Ot	her Postretirement Benefit Plans
		(Thousands	of Dollars)
Actuarial loss	\$	1,845	\$	137
Prior service credit	\$	(2,057)	\$	(1,145)

Investment Policies and Strategies

The investment policies and strategies for the assets of our qualified Pension Plan incorporate a well-diversified approach that is expected to earn long-term returns from capital appreciation and a growing stream of current income. This approach recognizes that assets are exposed to risk, and the market value of the Pension Plan's assets may fluctuate from year to year. Risk tolerance is determined based on our financial ability to withstand risk within the investment program and the willingness to accept return volatility. In line with the investment return objective and risk parameters, the Pension Plan's mix of assets includes a diversified portfolio of equity and fixed-income instruments. The aggregate asset allocation is reviewed on an annual basis. As of December 31, 2019, the target allocations for plan assets were 65% equity securities and 35% fixed income investments, with certain fluctuations permitted.

The overall expected long-term rate of return on plan assets for the Pension Plan is estimated using various models of asset returns. Model assumptions are derived using historical data with the assumption that capital markets are informationally efficient. Three models are used to derive the long-term expected returns for each asset class. Since each method has distinct advantages and disadvantages and differing results, an equal weighted average of the methods' results is used.

Fair Value of Plan Assets

We disclose the fair value for each major class of plan assets in the Pension Plan into three levels: Level 1, defined as observable inputs such as quoted prices for identical assets or liabilities in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable, such as quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in markets that are not active; and Level 3, defined as unobservable inputs for which little or no market data exists.

The major classes of plan assets measured at fair value for the Pension Plan were as follows:

			December 3	31, 2019	
	1	Level 1	Level 2	Level 3	Total
			(Thousands o	f Dollars)	
Cash equivalent securities	\$	160	\$ _ 5	S —	\$ 160
Equity securities:					
U.S. large cap equity fund (a)		_	92,737	_	92,737
International stock index fund (b)		17,473	_	_	17,473
Fixed income securities:					
Bond market index fund (c)		48,666	_	_	48,666
Total	\$	66,299	\$ 92,737	\$ —	\$ 159,036

		December	r 31, 2018		
	 Level 1	Level 2	I	Level 3	Total
		(Thousands	of Dollars)		
Cash equivalent securities	\$ 608	\$ _	\$	_	\$ 608
Equity securities:					
U.S. large cap equity fund (a)	_	70,525		_	70,525
International stock index fund (b)	13,391	_		_	13,391
Fixed income securities:					
Bond market index fund (c)	42,425	_		_	42,425
Total	\$ 56,424	\$ 70,525	\$	_	\$ 126,949

- (a) This fund is a low-cost equity index fund not actively managed that tracks the S&P 500. Fair values were estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows.
- (b) This fund tracks the performance of the Total International Composite Index.
- (c) This fund tracks the performance of the Barclays Capital U.S. Aggregate Bond Index.

Contributions to the Pension Plans

For the year ended December 31, 2019, we contributed \$11.1 million and \$0.2 million to the Pension Plans and other postretirement benefit plans, respectively. During 2020, we expect to contribute approximately \$11.3 million and \$0.4 million to the Pension Plans and other postretirement benefit plans, respectively, which principally represent contributions either required by regulations or laws, or with respect to unfunded plans, necessary to fund current benefits.

Estimated Future Benefit Payments

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid for the years ending December 31:

	P	ension Plans	Other Postretirement Benefit Plans		
		(Thousands of Dollars)			
2020	\$	9,058	\$	368	
2021	\$	9,859	\$	393	
2022	\$	9,987	\$	428	
2023	\$	10,461	\$	481	
2024	\$	10,825	\$	507	
Years 2025-2029	\$	59,680	\$	3,232	

Assumptions

The weighted-average assumptions used to determine the benefit obligations were as follows:

	Pension P	lans	Other Postretirement Benefit Plans December 31,			
	December	31,				
	2019	2018	2019	2018		
Discount rate	3.34%	4.40%	3.43%	4.53%		
Rate of compensation increase	3.51%	3.51%	n/a	n/a		

The weighted-average assumptions used to determine the net periodic benefit cost (income) were as follows:

_	Pension Plans Year Ended December 31,			Other Postretirement Benefit Plans Year Ended December 31,					
_									
	2019	2018	2017	2019	2018	2017			
Discount rate	4.40%	3.72%	4.33%	4.53%	3.82%	4.49%			
Expected long-term rate of return on plan assets	6.50%	6.50%	6.00%	n/a	n/a	n/a			
Rate of compensation increase	3.51%	3.51%	3.51%	n/a	n/a	n/a			

The assumed health care cost trend rates were as follows:

	December 31,		
	2019	2018	
Health care cost trend rate assumed for next year	6.84%	6.84%	
Rate to which the cost trend rate was assumed to decrease (the ultimate trend rate)	5.00%	5.00%	
Year that the rate reaches the ultimate trend rate	2028	2028	

We sponsor a contributory postretirement health care plan for employees who retired prior to April 1, 2014. The plan has an annual limitation (a cap) on the increase of the employer's share of the cost of covered benefits. The cap on the increase in employer's cost is 2.5% per year. The assumed increase in total health care cost exceeds the 2.5% indexed cap, so increasing or decreasing the health care cost trend rate by 1% does not materially change our obligation or expense for the postretirement health care plan.

24. UNIT-BASED COMPENSATION

Overview

2019 LTIP. In April 2019, our common unitholders approved the 2019 Long-Term Incentive Plan (2019 LTIP) for eligible employees, consultants and directors of NuStar Energy L.P., and of NuStar GP, LLC, and their respective affiliates who perform services for us and our subsidiaries. The 2019 LTIP allows for the awarding of (i) options; (ii) restricted units; (iii) distribution equivalent rights (DERs); (iv) performance cash; (v) performance units; and (vi) unit awards. DERs entitle the participant to receive cash equal to cash distributions made on any award prior to its vesting. The 2019 LTIP permits the granting of awards totaling an aggregate of 2,500,000 common units, subject to adjustment as provided in the 2019 LTIP. The 2019 LTIP generally will be administered by the compensation committee of our board of directors. As of December 31, 2019, a total of 2,230,392 common units remained available to be awarded under the 2019 LTIP.

2000 LTIP. We sponsor the 2000 Long-Term Incentive Plan, as amended (2000 LTIP), which terminated with respect to new grants when the unitholders approved the 2019 LTIP. However, unvested restricted unit and performance unit awards granted under the 2000 LTIP remain outstanding.

2006 LTIP. Effective July 20, 2018 and in conjunction with the Merger, we assumed the 2006 Long-Term Incentive Plan, as amended (the 2006 LTIP). Prior to the Merger, Holdings sponsored the 2006 LTIP. At the effective time of the Merger, each outstanding award of Holdings restricted units was converted, on the same terms and conditions as were applicable to the awards immediately prior to the Merger, into an award of NuStar Energy restricted units. The number of NuStar Energy

restricted units subject to the converted awards was determined pursuant to the 0.55 exchange ratio provided in the Merger agreement. The Holdings units remaining available to be awarded under the 2006 LTIP were also converted pursuant to the exchange ratio provided in the Merger agreement. Effective with the approval of the 2019 LTIP, the 2006 LTIP terminated with respect to new grants; however, unvested restricted unit awards granted under the 2006 LTIP remain outstanding.

The following table summarizes information pertaining to all of our long-term incentive plans:

	Units Outstanding December 31,			Compensation Expense Year Ended December 31,					
	2019	2018	2017	2019		2018			2017
				(Thousands of Dollars)					
Restricted Units:									
Domestic employees	1,223,143	1,028,484	736,746	\$	9,437	\$	8,233	\$	7,881
Non-employee directors (NEDs)	61,349	59,752	27,097		774		524		251
International employees	10,243	30,918	58,107		711		1,158		595
Performance Units	161,561	158,326	80,961		4,172		1,889		_
Unit Awards	_	_	_		22,846		18,895		_
Total	1,456,296	1,277,480	902,911	\$	37,940	\$	30,699	\$	8,727

Restricted Units

Our restricted unit awards are considered phantom units, as they represent the right to receive our common units upon vesting. We account for restricted units as either equity-classified awards or liability-classified awards, depending on expected method of settlement. Awards we settle with the issuance of common units upon vesting are equity-classified. Awards we settle in cash upon vesting are liability-classified. We record compensation expense ratably over the vesting period based on the fair value of the common units at the grant date (for domestic employees and NEDs) or the fair value of the common units measured at each reporting period (for international employees). DERs paid with respect to outstanding equity-classified unvested restricted units reduce equity, similar to cash distributions to unitholders, whereas DERs paid with respect to outstanding liability-classified unvested restricted units are expensed. In connection with the DERs for equity awards, we paid \$2.7 million, \$2.0 million and \$3.0 million respectively, in cash, for the years ended December 31, 2019, 2018 and December 31, 2017.

Domestic Employees. The outstanding restricted units granted to domestic employees are equity-classified awards and generally vest over five years, beginning one year after the grant date. The fair value of these awards is measured at the grant date.

Non-Employee Directors. The outstanding restricted units granted to NEDs are equity-classified awards that vest over three years. As discussed in Note 3, on January 1, 2019 we adopted amended guidance that will allow for the fair value of these awards to be measured at the grant date. The unvested restricted units granted to NEDs as of January 1, 2019 were measured at the fair value as of that date. Previously, the fair value of these awards was equal to the market price of our common units at each reporting period.

International Employees. The outstanding restricted units granted to international employees are cash-settled and accounted for as liability-classified awards. These awards vest over three years and the fair value is equal to the market price of our common units at each reporting period. For the year ended December 31, 2019, we granted 5,378 restricted units and 26,053 restricted units vested.

A summary of our restricted unit activity for domestic employees and, beginning January 1, 2019, NEDs is as follows:

	Number of Restricted Units	Weighted-Average Grant-Date Fair Value Per Unit
Nonvested units as of January 1, 2017	647,340	\$ 39.72
Granted	307,009	29.56
Vested	(201,466)	38.74
Forfeited	(16,137)	40.00
Nonvested units as of December 31, 2017	736,746	35.95
Converted on July 20, 2018	53,447	24.99
Granted	518,282	24.07
Vested	(235,746)	35.12
Forfeited	(44,245)	36.05
Nonvested units as of December 31, 2018	1,028,484	29.47
NEDs	59,752	20.93
Granted	596,881	26.46
Vested	(328,386)	30.11
Forfeited	(72,239)	28.05
Nonvested units as of December 31, 2019	1,284,492	27.48

The total fair value of our equity-classified restricted unit awards vested for the years ended December 31, 2019, 2018 and 2017 was \$9.3 million, \$6.2 million and \$6.5 million, respectively. We issued 242,199, 189,399 and 152,017 common units in connection with these award vestings, net of employee tax withholding requirements, for the years ended December 31, 2019, 2018 and 2017, respectively. Unrecognized compensation cost related to our equity-classified employee awards totaled \$32.5 million as of December 31, 2019, which we expect to recognize over a weighted-average period of 3.8 years.

Performance Units

Performance units are issued to certain of our key employees and represent rights to receive our common units upon achieving performance measures for the performance period established by the NuStar GP, LLC Compensation Committee for the following year. Achievement of the performance measures determines the rate at which the performance units convert into our common units, which ranges from zero to 200% for certain awards.

Performance units awarded vest in three annual increments (tranches), based upon our achievement of the performance measures set by the Compensation Committee during the one-year performance periods that end on December 31 of each applicable year. Therefore, the performance units are not considered granted for accounting purposes until the Compensation Committee has set the performance measures for each tranche of awards. Performance units are equity-classified awards measured at the grant date fair value. In addition, since the performance units granted do not receive DERs, the grant date fair value of these awards is reduced by the per unit distributions expected to be paid to common unitholders during the vesting period. We record compensation expense ratably for each vesting tranche over its requisite service period (one year) if it is probable that the specified performance measures will be achieved. Additionally, changes in the actual or estimated outcomes that affect the quantity of performance units expected to be converted are recognized as a cumulative adjustment.

A summary of our performance units is shown below:

		Granted for Accounting Purposes					
	Total Performance Units Awarded	Performance Units	Weighted-Average Grant Date Fair Value per Unit				
Outstanding as of January 1, 2017	77,014	35,373	\$ 31.75				
Granted	39,320	38,865	50.04				
Performance adjustments (a)	17,690	17,690	31.75				
Vested	(53,063)	(53,063)	31.75				
Outstanding as of December 31, 2017	80,961	38,865	50.04				
Granted	116,230	80,690	23.43				
Forfeitures	(38,865)	(38,865)	50.04				
Outstanding as of December 31, 2018	158,326	80,690	23.43				
Granted	95,969	74,439	28.01				
Vested	(80,690)	(80,690)	23.43				
Forfeitures	(12,044)	_	_				
Outstanding as of December 31, 2019	161,561	74,439	28.01				

⁽a) Represents the additional units issued to employees resulting from performance that exceeded the specified targets for the performance measures.

For the year ended December 31, 2017, we issued 33,438 common units in connection with the performance award vestings related to 2016 performance, net of employee tax withholding requirements, and the total fair value of performance awards vested was \$2.9 million. For the year ended December 31, 2018, no performance units vested with respect to 2017 performance. For the year ended December 31, 2019, we issued 50,054 common units in connection with the performance award vestings related to 2018 performance, net of employee tax withholding requirements, and the total fair value of performance awards vested was \$2.1 million.

Unit Awards

Unit awards are equity-classified awards of fully vested common units. We accrued compensation expense in 2019 and 2018 that was paid in unit awards in February of the subsequent years. We base the number of unit awards granted on the fair value of the common units at the grant date. A summary of our unit awards is shown below:

Date of Grant	Grant	Date Fair Value	Unit Awards Granted	Common Units Issued, Net of Employee Withholding Tax				
	(Thous	sands of Dollars)						
February 11, 2020	\$	22,846	822,979	563,806				
February 11, 2019	\$	17,537	704,886	482,971				
July 23, 2018	\$	1,358	55,133	35,745				

25. INCOME TAXES

Components of income tax expense related to certain of our continuing operations conducted through separate taxable wholly owned corporate subsidiaries were as follows:

	Year Ended December 31,							
		2019	2018		2017			
			(Thousands of Dollars)					
Current:								
U.S.	\$	3,741	\$ 4,515	\$	3,117			
Foreign		1,489	4,658		6,335			
Foreign withholding tax		101	192		479			
Total current		5,331	9,365		9,931			
Deferred:								
U.S.		(490)	1,403		1,468			
Foreign		(168)	394		(1,065)			
Foreign withholding tax		182	246		(397)			
Total deferred		(476)	2,043		6			
Less: amounts reported in discontinued operations		101	1,251		2,164			
Income tax expense	\$	4,754	\$ 10,157	\$	7,773			

The difference between income tax expense recorded in our consolidated statements of (loss) income and income taxes computed by applying the statutory federal income tax rate (21% for 2019 and 2018 and 35% for 2017) to income before income tax expense is due to the fact that the majority of our income is not subject to federal income tax due to our status as a limited partnership. We record a tax provision related to the amount of undistributed earnings of our foreign subsidiaries expected to be repatriated.

The tax effects of significant temporary differences representing deferred income tax assets and liabilities were as follows:

	 December 31,				
	 2019		2018		
	(Thousands	of Dollar	s)		
Deferred income tax assets:					
Net operating losses	\$ 26,081	\$	21,009		
Employee benefits	372		362		
Environmental and legal reserves	267		239		
Allowance for bad debt	_		1,970		
Capital loss	3,870		_		
Other	328		1,796		
Total deferred income tax assets	30,918		25,376		
Less: Valuation allowance	(17,743)		(12,442)		
Net deferred income tax assets	 13,175		12,934		
Deferred income tax liabilities:					
Property, plant and equipment	(25,169)		(25,128)		
Foreign withholding tax	(433)		(234)		
Total deferred income tax liabilities	(25,602)		(25,362)		
Net deferred income tax liability	\$ (12,427)	\$	(12,428)		
Reported on the consolidated balance sheets as:					
Deferred income tax liability	\$ (12,427)	\$	(12,428)		

As of December 31, 2019, our U.S. and foreign corporate operations have net operating loss carryforwards for tax purposes totaling \$96.8 million and \$19.1 million, respectively, which are subject to various limitations on use and expire in years 2025 through 2037 for U.S. losses and in years 2019 through 2029 for foreign losses. However, U.S. losses generated after December 31, 2017 can be carried forward indefinitely. As of December 31, 2019, our U.S. corporate operations have a capital loss carryforward for tax purposes totaling \$18.4 million, which is subject to limitations on use and expires in 2024.

As of December 31, 2019 and 2018, we recorded a valuation allowance of \$17.7 million and \$12.4 million, respectively, related to our deferred tax assets. We estimate the amount of valuation allowance based upon our expectations of taxable income in the various jurisdictions in which we operate and the period over which we can utilize those future deductions. The valuation allowance reflects uncertainties related to our ability to utilize certain net operating loss carryforwards before they expire. In 2019, there was a \$3.7 million increase in the valuation allowance for the U.S. net operating loss and a \$1.6 million increase in the foreign net operating loss valuation allowance due to changes in our estimates of the amount of those loss carryforwards that will be realized, based upon future taxable income.

The realization of net deferred income tax assets recorded as of December 31, 2019 is dependent upon our ability to generate future taxable income in the United States. We believe it is more likely than not that the net deferred income tax assets as of December 31, 2019 will be realized, based on expected future taxable income.

26. SEGMENT INFORMATION

Our reportable business segments consist of the pipeline, storage and fuels marketing segments. Our segments represent strategic business units that offer different services and products. We evaluate the performance of each segment based on its respective operating income, before general and administrative expenses and certain non-segmental depreciation and amortization expense. General and administrative expenses are not allocated to the operating segments since those expenses relate primarily to the overall management at the entity level. Our principal operations include the transportation of petroleum products and anhydrous ammonia, and the terminalling, storage and marketing of petroleum products. Intersegment revenues result from storage agreements with wholly owned subsidiaries of NuStar Energy at rates consistent with the rates charged to third parties for storage.

Results of operations for the reportable segments were as follows:

1 0						
	<u></u>		Year	Ended December 31,		
		2019		2018		2017
			(T	housands of Dollars)		
Revenues:						
Pipeline	\$	701,830	\$	611,065	\$	516,288
Storage:						
Third parties		453,976		443,546		438,677
Intersegment		25		42		4,339
Total storage		454,001		443,588		443,016
Fuels marketing		342,215		465,651		489,807
Consolidation and intersegment eliminations		(25)		(42)		(4,339)
Total revenues	\$	1,498,021	\$	1,520,262	\$	1,444,772
Depreciation and amortization expense:		100001		4=0.040		100.001
Pipeline	\$	166,991	\$	153,943	\$	128,061
Storage		97,573		93,345		91,696
Total segment depreciation and amortization expense		264,564		247,288		219,757
Other depreciation and amortization expense		8,360		8,604		8,435
Total depreciation and amortization expense	\$	272,924	\$	255,892	\$	228,192
Operating income:						
Pipeline	\$	332,480	\$	272,695	\$	231,795
Storage	Ψ	154,105	Ψ	155,708	Ψ	172,720
Fuels marketing		20,578		15,964		1,987
Consolidation and intersegment eliminations		(32)		32		(1)
Total segment operating income		507,131		444,399		406,501
General and administrative expenses		107,855		100,067		107,556
Other depreciation and amortization expense		8,360		8,604		8,435
Total operating income	¢	390,916	<u>c</u>	335,728	¢	,
rotar obergring income	\$	390,916	\$	335,/28	\$	290,510

Revenues by geographic area are shown in the table below:

	Year Ended December 31,								
		2019		2018		2017			
	(Thousands of Dollars)								
United States	\$	1,465,135	\$	1,481,844	\$	1,406,776			
Foreign		32,886		38,418		37,996			
Consolidated revenues	\$	1,498,021	\$	1,520,262	\$	1,444,772			

For the years ended December 31, 2019, 2018 and 2017, Valero Energy Corporation accounted for approximately 21%, or \$307.2 million, 20%, or \$303.7 million, and 20%, or \$294.5 million, of our revenues, respectively. These revenues were included in all of our reportable business segments. No other single customer accounted for 10% or more of our consolidated revenues.

Total amounts of property, plant and equipment, net by geographic area were as follows:

	De	December 31,						
	2019		2018					
	(Thous	(Thousands of Dollars)						
United States	\$ 4,000,64	7 \$	3,688,631					
Foreign	118,33	2	86,171					
Consolidated property, plant and equipment, net	\$ 4,118,97	9 \$	3,774,802					

Total assets by reportable segment were as follows:

	December 31,					
		2019		2018		
		s of Dolla	rs)			
Pipeline	\$	3,884,819	\$	3,637,226		
Storage		2,082,832		1,902,764		
Fuels marketing		31,064		37,252		
Total segment assets		5,998,715		5,577,242		
Assets held for sale		_		599,347		
Other partnership assets		187,277		172,551		
Total consolidated assets	\$	6,185,992	\$	6,349,140		

Capital expenditures, including acquisitions, by reportable segment were as follows:

Year Ended December 31,								
	2019	2018	2017					
(Thousands of Dollars)								
\$	387,702	\$	288,035	\$	1,596,311			
	141,972		202,782		244,398			
	3,894		4,137		5,648			
\$	533,568	\$	494,954	\$	1,846,357			

Capital expenditures have not been adjusted to separately disclose those capital expenditures related to discontinued operations, which are included in the storage segment totaling \$28.0 million, \$114.8 million, and \$153.8 million for the years ended December 31, 2019, 2018 and 2017, respectively.

27. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

NuStar Energy has no operations, and its assets consist mainly of its 100% indirectly owned subsidiaries, NuStar Logistics and NuPOP. The senior and subordinated notes issued by NuStar Logistics are fully and unconditionally guaranteed by NuStar Energy and NuPOP. As a result, the following condensed consolidating financial statements are presented as an alternative to providing separate financial statements for NuStar Logistics and NuPOP.

Condensed Consolidating Balance Sheets December 31, 2019 (Thousands of Dollars)

		(11104104114100	 				
	NuStar Energy	NuStar Logistics	NuPOP		Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets							
Cash and cash equivalents	\$ 176	\$ 24	\$ _	\$	15,992	\$ _	\$ 16,192
Receivables, net	_	317	4		152,209	_	152,530
Inventories	_	1,953	4,821		5,619	_	12,393
Prepaid and other current assets	61	16,325	600		4,947	_	21,933
Intercompany receivable	_	1,276,839	_		610,298	(1,887,137)	_
Total current assets	237	1,295,458	5,425		789,065	(1,887,137)	203,048
Property, plant and equipment, net	_	2,058,530	612,128		1,448,321		4,118,979
Intangible assets, net	_	39,683	_		641,949	_	681,632
Goodwill	_	149,453	170,652		685,748	_	1,005,853
Investment in wholly owned subsidiaries	2,871,540	1,743,066	1,155,855		490,826	(6,261,287)	_
Other long-term assets, net	98	111,362	32,121		32,899	_	176,480
Total assets	\$ 2,871,875	\$ 5,397,552	\$ 1,976,181	\$	4,088,808	\$ (8,148,424)	\$ 6,185,992
Liabilities, Mezzanine Equity and Partners' Equity				=			
Accounts payable	\$ 5,427	\$ 42,064	\$ 8,379	\$	53,964	\$ _	\$ 109,834
Short-term debt and current portion of finance leases	_	9,722	299		25	_	10,046
Current portion of long-term debt	_	452,367	_		_	_	452,367
Accrued interest payable	_	37,888	4		33	_	37,925
Accrued liabilities	1,425	40,514	8,461		53,885	_	104,285
Taxes other than income tax	125	7,311	5,160		185	_	12,781
Income tax payable	_	492	2		3,831	_	4,325
Intercompany payable	438,857	_	1,448,280		_	(1,887,137)	_
Total current liabilities	445,834	590,358	1,470,585		111,923	(1,887,137)	731,563
Long-term debt, less current portion	_	2,871,786	1,127		62,005	_	2,934,918
Deferred income tax liability	_	1,499	10		10,918	_	12,427
Other long-term liabilities	_	65,577	13,774		69,588	_	148,939
Series D preferred units	581,935	_	_		_	_	581,935
Total partners' equity	1,844,106	1,868,332	490,685		3,834,374	(6,261,287)	1,776,210
Total liabilities, mezzanine equity and partners' equity	\$ 2,871,875	\$ 5,397,552	\$ 1,976,181	\$	4,088,808	\$ (8,148,424)	\$ 6,185,992

Condensed Consolidating Balance Sheets December 31, 2018 (Thousands of Dollars)

		NuStar Energy		NuStar Logistics		NuPOP		Non-Guarantor Subsidiaries		Eliminations		Consolidated
Assets												
Cash and cash equivalents	\$	1,255	\$	51	\$	_	\$	10,223	\$	_	\$	11,529
Receivables, net		_		2,212		_		108,205		_		110,417
Inventories		_		1,741		5,237		1,456		_		8,434
Prepaid and other current assets		61		14,422		908		1,983		_		17,374
Assets held for sale		_		_		_		599,347		_		599,347
Intercompany receivable		_		1,327,833		_		500,583		(1,828,416)		_
Total current assets		1,316		1,346,259		6,145		1,221,797		(1,828,416)		747,101
Property, plant and equipment, net		_		1,858,264		615,549		1,300,989		_		3,774,802
Intangible assets, net		_		49,107		_		683,949		_		733,056
Goodwill		_		149,453		170,652		685,748		_		1,005,853
Investment in wholly owned subsidiaries		3,355,636		1,750,256		1,425,283		857,485		(7,388,660)		_
Other long-term assets, net		304		54,429		26,716		6,879		_		88,328
Total assets	\$	3,357,256	\$	5,207,768	\$	2,244,345	\$	4,756,847	\$	(9,217,076)	\$	6,349,140
Liabilities, Mezzanine Equity and Partners' Equity												
Accounts payable	\$	6,460	\$	39,680	\$	6,331	\$	50,651	\$	_	\$	103,122
Short-term debt	Ψ		Ψ	18,500	Ψ		Ψ		Ψ	_	Ψ	18,500
Accrued interest payable		_		36,253		_		40		<u>_</u>		36,293
Accrued liabilities		1,280		24,858		8,082		40,198		_		74,418
Taxes other than income tax		125		7,285		4,718		4,695		_		16,823
Income tax payable		_		457		2		3,986		_		4,445
Liabilities held for sale		_		_		_		69,834		_		69,834
Intercompany payable		472,790		_		1,355,626		_		(1,828,416)		_
Total current liabilities		480,655		127,033		1,374,759		169,404		(1,828,416)		323,435
Long-term debt		_		3,050,531		_	-	61,465		_		3,111,996
Deferred income tax liability		_		1,675		9		10,744		_		12,428
Other long-term liabilities		_		28,392		12,348		38,818		_		79,558
Series D preferred units		563,992		_		_		_		_		563,992
Total partners' equity		2,312,609		2,000,137		857,229		4,476,416		(7,388,660)		2,257,731
Total liabilities, mezzanine equity and partners' equity	\$	3,357,256	\$	5,207,768	\$	2,244,345	\$	4,756,847	\$	(9,217,076)	\$	6,349,140

Condensed Consolidating Statements of (Loss) Income For the Year Ended December 31, 2019 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics	NuPOP	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ _	\$ 545,863	\$ 258,420	\$ 694,485	\$ (747)	\$ 1,498,021
Costs and expenses	2,574	338,291	159,376	607,611	(747)	1,107,105
Operating (loss) income	(2,574)	207,572	99,044	86,874	_	390,916
Equity in earnings of subsidiaries	208,995	42,139	51,537	144,366	(447,037)	_
Interest income (expense), net	415	(187,337)	(6,961)	10,813	_	(183,070)
Other income (expense), net	_	3,002	744	(4)	_	3,742
Income from continuing operations before income tax expense (benefit)	206,836	65,376	144,364	242,049	(447,037)	211,588
Income tax expense (benefit)	2	(230)	3	4,979	_	4,754
Income from continuing operations, net of tax	206,834	65,606	144,361	237,070	(447,037)	206,834
(Loss) income from discontinued operations, net of tax (a)	(312,527)	7,912	(320,439)	(640,877)	953,404	(312,527)
Net (loss) income	\$ (105,693)	\$ 73,518	\$ (176,078)	\$ (403,807)	\$ 506,367	\$ (105,693)

⁽a) Includes equity in earnings (loss) of subsidiaries related to discontinued operations.

Condensed Consolidating Statements of Income (Loss) For the Year Ended December 31, 2018 (Thousands of Dollars)

		NuStar Energy	NuStar Logistics		NuPOP		Non-Guarantor Subsidiaries	Eliminations		Consolidated
Revenues	\$	_	\$ 485,603	\$	260,679	\$	774,685	\$	(705)	\$ 1,520,262
Costs and expenses		2,407	317,286		163,667		701,879		(705)	1,184,534
Operating (loss) income		(2,407)	 168,317		97,012		72,806			335,728
Equity in earnings of subsidiaries		148,554	17,167		62,494		152,830		(381,045)	_
Interest income (expense), net		228	(191,835)		(7,127)		14,336		_	(184,398)
Other income, net		_	3,876		446		880		_	5,202
Income (loss) from continuing operations before income tax expense (benefit)	<u></u>	146,375	(2,475)		152,825		240,852		(381,045)	156,532
Income tax expense (benefit)			588		(3)		9,572			10,157
Income (loss) from continuing operations, net of tax		146,375	(3,063)		152,828	_	231,280		(381,045)	146,375
Income from discontinued operations, net of tax (a)		59,419	<u> </u>		59,419		118,838		(178,257)	59,419
Net income (loss)	\$	205,794	\$ (3,063)	\$	212,247	\$	350,118	\$	(559,302)	\$ 205,794

⁽a) Includes equity in earnings (loss) of subsidiaries related to discontinued operations.

Condensed Consolidating Statements of Income (Loss) For the Year Ended December 31, 2017 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics		NuPOP		Non-Guarantor Subsidiaries	Eliminations		Consolidated
Revenues	\$ 	\$ 496,454	\$	221,125	\$	728,211	\$	(1,018)	\$ 1,444,772
Costs and expenses	1,868	317,871		146,243		689,298		(1,018)	1,154,262
Operating (loss) income	 (1,868)	178,583		74,882		38,913			290,510
Equity in earnings (loss) of subsidiaries	112,706	(10,616)		52,336		121,631		(276,057)	_
Interest income (expense), net	57	(176,897)		(5,587)		10,653		_	(171,774)
Other income (expense), net	_	145		3		(216)		_	(68)
Income (loss) from continuing operations before income tax (benefit) expense	110,895	(8,785)		121,634		170,981		(276,057)	118,668
Income tax (benefit) expense	_	(820)		2		8,591		_	7,773
Income (loss) from continuing operations, net of tax	110,895	(7,965)		121,632		162,390		(276,057)	110,895
Income from discontinued operations, net of tax (a)	37,069	_		37,069		74,138		(111,207)	37,069
Net income (loss)	\$ 147,964	\$ (7,965)	\$	158,701	\$	236,528	\$	(387,264)	\$ 147,964

⁽a) Includes equity in earnings (loss) of subsidiaries related to discontinued operations.

Condensed Consolidating Statements of Comprehensive (Loss) Income For the Year Ended December 31, 2019 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics		NuPOP		Non-Guarantor Subsidiaries		Eliminations		Consolidated
Net (loss) income	\$ (105,693)	\$ 73,518	\$	(176,078)	\$	(403,807)	\$	506,367	\$	(105,693)
Other comprehensive income (loss):										
Foreign currency translation adjustment	_	_		_		3,527		_		3,527
Net loss on pension and other postretirement benefit adjustments, net of tax benefit	_	_		_		(1,314)		_		(1,314)
Net loss on cash flow hedges	_	(15,231)		_		_		_		(15,231)
Total other comprehensive (loss) income	 	 (15,231)				2,213				(13,018)
Comprehensive (loss) income	\$ (105,693)	\$ 58,287	\$	(176,078)	\$	(401,594)	\$	506,367	\$	(118,711)

Condensed Consolidating Statements of Comprehensive Income For the Year Ended December 31, 2018 (Thousands of Dollars)

		NuStar Energy	NuStar Logistics	NuPOP	ľ	Non-Guarantor Subsidiaries]	Eliminations	C	Consolidated
Net income (loss)	\$	205,794	\$ (3,063)	\$ 212,247	\$	350,118	\$	(559,302)	\$	205,794
Other comprehensive income:										
Foreign currency translation adjustment		_	_	_		4,304		_		4,304
Net gain on pension and other postretirement benefit adjustments, net	t									
of tax expense		_	_	_		2,334		_		2,334
Net gain on cash flow hedges		_	23,411	_		_		_		23,411
Total other comprehensive income			23,411	 _		6,638				30,049
Comprehensive income	\$	205,794	\$ 20,348	\$ 212,247	\$	356,756	\$	(559,302)	\$	235,843

Condensed Consolidating Statements of Comprehensive Income (Loss) For the Year Ended December 31, 2017 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics		NuPOP		Non-Guarantor Subsidiaries	1	Eliminations	Consolidated		
Net income (loss)	\$ 147,964	\$ (7,965)	\$	158,701	\$	236,528	\$	(387,264)	\$	147,964	
Other comprehensive income (loss):											
Foreign currency translation adjustment	_	_		_		17,466		_		17,466	
Net loss on pension and other postretirement benefit adjustments, net											
of tax benefit	_	_		_		(6,170)		_		(6,170)	
Net loss on cash flow hedges	_	(2,046)		_		_		_		(2,046)	
Total other comprehensive (loss) income		(2,046)				11,296				9,250	
Comprehensive income (loss)	\$ 147,964	\$ (10,011)	\$	158,701	\$	247,824	\$	(387,264)	\$	157,214	

Condensed Consolidating Statements of Cash Flows For the Year Ended December 31, 2019 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics	NuPOP	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by operating						
activities	\$ 376,999	\$ 166,005	\$ 126,728	\$ 409,115	\$ (570,090)	\$ 508,757
Cash flows from investing activities:						
Capital expenditures	_	(257,117)	(28,592)	(247,859)	_	(533,568)
Change in accounts payable related to capital expenditures	_	1,369	1,212	(15,312)	_	(12,731)
Proceeds from sale or disposition of assets	_	247	90	227,815	_	228,152
Investment in subsidiaries	_	(11,999)	_	_	11,999	_
Other, net	_	_	_	(1,100)	_	(1,100)
Net cash used in investing activities	_	(267,500)	(27,290)	(36,456)	11,999	(319,247)
Cash flows from financing activities:						
Debt borrowings	_	1,415,580	_	42,800	_	1,458,380
Debt repayments	_	(1,207,000)	_	(42,400)	_	(1,249,400)
Issuance of common units, net of issuance costs	15,000	_	_	_	_	15,000
Distributions to preferred unitholders	(121,693)	(60,846)	(60,847)	(60,853)	182,546	(121,693)
Distributions to common unitholders	(258,354)	(129,177)	(129,177)	(129,190)	387,544	(258,354)
Contributions from affiliates	_	_	_	11,999	(11,999)	_
Net intercompany activity	(2,010)	101,980	90,734	(190,704)	_	_
Other, net	(11,021)	(10,281)	(148)	(133)	_	(21,583)
Net cash (used in) provided by financing activities	(378,078)	110,256	(99,438)	(368,481)	558,091	(177,650)
Effect of foreign exchange rate changes on cash			_	(524)	_	(524)
Net (decrease) increase in cash, cash equivalents and restricted cash	(1,079)	8,761	_	3,654	_	11,336
Cash, cash equivalents and restricted cash as of the beginning of the period	1,255	51		12,338		13,644
Cash, cash equivalents and restricted cash as of the end of the period	\$ 176	\$ 8,812	<u> </u>	\$ 15,992	<u>\$</u>	\$ 24,980

Condensed Consolidating Statements of Cash Flows For the Year Ended December 31, 2018 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics	NuPOP	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by operating activities	\$ 444,233	\$ 100,385	\$ 179,512	\$ 514,936	\$ (694,859)	\$ 544,207
Cash flows from investing activities:						
Capital expenditures	_	(71,044)	(19,152)	(367,256)	_	(457,452)
Change in accounts payable related to capital expenditures	_	11,101	(5,161)	(13,623)	_	(7,683)
Acquisitions	_	_	(37,502)	_	_	(37,502)
Proceeds from insurance recoveries	_	_	_	78,419	_	78,419
Proceeds from sale or disposition of assets	_	2,674	31	267,735	_	270,440
Investment in subsidiaries	(708,600)	(1,711,975)	(54,600)	(54,665)	2,529,840	_
Net cash used in investing activities	(708,600)	(1,769,244)	(116,384)	(89,390)	2,529,840	(153,778)
Cash flows from financing activities:						
Debt borrowings	_	1,840,853	_	31,800	_	1,872,653
Debt repayments	_	(2,349,476)	_	(32,300)	_	(2,381,776)
Issuance of Series D preferred units	590,000	_	_	_	_	590,000
Payment of issuance costs for Series D preferred units	(34,203)	_	_	_	_	(34,203)
Issuance of common units, net of issuance costs	10,000	_	_	_	_	10,000
General partner contribution	204	_	_	_	_	204
Distributions to preferred unitholders	(90,670)	(45,336)	(45,336)	(45,335)	136,007	(90,670)
Distributions to common unitholders and general partner	(300,777)	(150,388)	(150,388)	(150,408)	451,184	(300,777)
Cash consideration for Merger (Note 4)	(67,936)	_	_	141	_	(67,795)
Proceeds from termination of interest rate swaps	_	8,048	_	_	_	8,048
Contributions from affiliates	_	599,400	54,600	1,768,172	(2,422,172)	_
Net intercompany activity	162,498	1,766,881	77,996	(2,007,375)	_	_
Other, net	(4,379)	(1,101)		(71)		(5,551)
Net cash provided by (used in) financing activities	264,737	1,668,881	(63,128)	(435,376)	(1,834,981)	(399,867)
Effect of foreign exchange rate changes on cash	_	_	_	(1,210)	_	(1,210)
Net increase (decrease) in cash and cash equivalents	370	22		(11,040)	_	(10,648)
Cash and cash equivalents as of the beginning of the period	885	29	_	23,378	_	24,292
Cash and cash equivalents as of the end of the period	\$ 1,255	\$ 51	\$ —	\$ 12,338	\$ —	\$ 13,644

Condensed Consolidating Statements of Cash Flows For the Year Ended December 31, 2017 (Thousands of Dollars)

	NuStar Energy	NuStar Logistics	NuPOP	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by operating						
activities	\$ 483,481	\$ 152,101	\$ 102,405	\$ 405,950	\$ (737,138)	\$ 406,799
Cash flows from investing activities:						
Capital expenditures	_	(47,600)	(35,041)	(301,997)	_	(384,638)
Change in accounts payable related to capital expenditures	_	(1,988)	5,964	32,927	_	36,903
Acquisitions	_	_	_	(1,461,719)	_	(1,461,719)
Proceeds from Axeon term loan	_	110,000	_	_	_	110,000
Proceeds from insurance recoveries	_	_	_	977	_	977
Proceeds from sale or disposition of assets	_	1,955	18	63	_	2,036
Investment in subsidiaries	(1,262,000)	_	_	(126)	1,262,126	_
Net cash (used in) provided by investing activities	(1,262,000)	62,367	(29,059)	(1,729,875)	1,262,126	(1,696,441)
Cash flows from financing activities:						
Debt borrowings	_	2,969,400	_	90,700	_	3,060,100
Debt repayments	_	(2,400,739)	_	(86,800)	_	(2,487,539)
Issuance of preferred units, net of issuance costs	538,560	_	_	_	_	538,560
Issuance of common units, net of						
issuance costs	643,878	_	_	_	_	643,878
General partner contribution	13,737	_	_	_	_	13,737
Distributions to preferred unitholders	(38,833)	(19,417)	(19,416)	(19,418)	58,251	(38,833)
Distributions to common unitholders and general partner	(446,306)	(223,153)	(223,153)	(223,176)	669,482	(446,306)
Contributions from (distributions to) affiliates	_	1,262,000	_	(9,279)	(1,252,721)	_
Net intercompany activity	73,206	(1,801,218)	169,223	1,558,789	_	_
Other, net	(5,708)	(1,317)	_	(300)	_	(7,325)
Net cash provided by (used in) financing activities	778,534	(214,444)	(73,346)	1,310,516	(524,988)	1,276,272
Effect of foreign exchange rate changes on cash				1,720		1,720
Net increase (decrease) in cash and cash equivalents	15	24	_	(11,689)	_	(11,650)
Cash and cash equivalents as of the beginning of the period	870	5	_	35,067	_	35,942
Cash and cash equivalents as of the end of the period	\$ 885	\$ 29	\$ —	\$ 23,378	\$ —	\$ 24,292

28. QUARTERLY FINANCIAL DATA (UNAUDITED)

The following table summarizes quarterly financial data for the years ended December 31, 2019 and 2018:

	 First Quarter		Second Quarter (Thousand	s of E	Third Quarter Pollars, Except P	er Ur	Fourth Quarter		Total
2019:			(, _F				
Revenues	\$ 347,826	\$	372,445	\$	378,056	\$	399,694	\$	1,498,021
Operating income	\$ 73,605	\$	93,283	\$	99,972	\$	124,056	\$	390,916
Income from continuing operations, net of tax	\$ 28,923	\$	46,915	\$	52,588	\$	78,408	\$	206,834
Loss from discontinued operations, net of tax	(306,786)		(964)		(4,777)		_		(312,527)
Net (loss) income	\$ (277,863)	\$	45,951	\$	47,811	\$	78,408	\$	(105,693)
Basic and diluted net (loss) income per common unit:		_						_	
Continuing operations	\$ (0.06)	\$	0.11	\$	0.15	\$	0.40	\$	0.60
Discontinued operations	(2.85)		(0.01)		(0.04)		_		(2.90)
Total	\$ (2.91)	\$	0.10	\$	0.11	\$	0.40	\$	(2.30)
Cash distributions per unit applicable to common limited partners	\$ 0.60	\$	0.60	\$	0.60	\$	0.60	\$	2.40
2018:									
Revenues	\$ 376,727	\$	389,256	\$	380,142	\$	374,137	\$	1,520,262
Operating income	\$ 83,493	\$	76,387	\$	89,165	\$	86,683	\$	335,728
Income from continuing operations, net of tax	\$ 33,233	\$	26,909	\$	43,663	\$	42,570	\$	146,375
Income (loss) from discontinued operations, net of tax	92,900		2,490		4,473		(40,444)		59,419
Net income	\$ 126,133	\$	29,399	\$	48,136	\$	2,126	\$	205,794
Basic and diluted net income (loss) per common unit:									
Continuing operations	\$ 0.18	\$	0.12	\$	(3.53)	\$	0.07	\$	(3.34)
Discontinued operations	0.97		0.03		0.04		(0.38)		0.57
Total	\$ 1.15	\$	0.15	\$	(3.49)	\$	(0.31)	\$	(2.77)
Cash distributions per unit applicable to common limited partners	\$ 0.60	\$	0.60	\$	0.60	\$	0.60	\$	2.40

The quarterly financial data in the table above includes the following:

- impairment and goodwill losses of \$297.3 million and \$31.1 million, respectively, in the first quarter of 2019 (please refer to Note 5 for further discussion);
- the \$43.4 million non-cash loss associated with the sale of our European Operations in the fourth quarter of 2018 (please refer to Note 5 for further discussion); and
- the \$78.8 million gain from hurricane insurance proceeds received in the first quarter of 2018 (please refer to Note 1 for further discussion).

Basic and diluted net income (loss) per common unit also includes the impact of the \$377.1 million loss as a result of the Merger in 2018. Please refer to Notes 4 and 21 for further discussion.

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

DISCLOSURE CONTROLS AND PROCEDURES

Our management has evaluated, with the participation of the principal executive officer and principal financial officer of NuStar GP, LLC, the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report, and has concluded that our disclosure controls and procedures were effective as of December 31, 2019.

INTERNAL CONTROL OVER FINANCIAL REPORTING

(a) Management's Report on Internal Control over Financial Reporting.

Management's report on NuStar Energy L.P.'s internal control over financial reporting appears in Item 8. of this Form 10-K, and is incorporated herein by reference.

(b) Attestation Report of the Registered Public Accounting Firm.

The report of KPMG LLP on NuStar Energy L.P.'s internal control over financial reporting appears in Item 8. of this Form 10-K, and is incorporated herein by reference.

(c) Changes in Internal Control over Financial Reporting.

There has been no change in our internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required to be disclosed under this Item 10 is incorporated by reference to the following sections of our Proxy Statement for the 2020 annual meeting of unitholders, which is expected to be filed within 120 days after the end of the fiscal year covered by this Form 10-K (Proxy Statement): "Corporate Governance-Leadership and Governance," "Corporate Governance-Committees of the Board," "Corporate Governance-Governance Documents and Codes of Ethics," "Corporate Governance-Communications with the Board of Directors," "Proposal No. 1 Election of Directors" and "Information About Our Executive Officers."

ITEM 11. EXECUTIVE COMPENSATION

Information required to be disclosed under this Item 11 is incorporated by reference to the following sections of our Proxy Statement: "Corporate Governance-Compensation Committee Interlocks and Insider Participation," "Compensation Committee Report," "Compensation Discussion and Analysis," "Evaluation of Compensation Risk," "Summary Compensation Table," "Pay Ratio," "Grants of Plan-Based Awards During the Year Ended December 31, 2019," "Outstanding Equity Awards at December 31, 2019," "Option Exercises and Units Vested During the Year Ended December 31, 2019," "Potential Payments Upon Termination or Change of Control" and "Director Compensation."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED UNITHOLDER MATTERS

Information required to be disclosed under this Item 12 is incorporated by reference to the following sections of our Proxy Statement: "Security Ownership-Security Ownership of Management and Directors," "Security Ownership-Security Ownership of Certain Beneficial Owners" and "Security Ownership-Equity Compensation Plan Information."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information required to be disclosed under this Item 13 is incorporated by reference to the following sections of our Proxy Statement: "Corporate Governance-Director Independence," "Corporate Governance-Board Leadership and Governance" and "Certain Relationships and Related Party Transactions."

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required to be disclosed under this Item 14 is incorporated by reference to the following sections of our Proxy Statement: "KPMG Fees" and "Audit Committee Pre-Approval Policy."

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) Financial Statements. The following consolidated financial statements of NuStar Energy L.P. and its subsidiaries are included in Part II, (a) Item 8 of this Form 10-K:

Management's Report on Internal Control over Financial Reporting

Reports of Independent Registered Public Accounting Firm (KPMG LLP)

Consolidated Balance Sheets as of December 31, 2019 and 2018

Consolidated Statements of (Loss) Income for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Comprehensive (Loss) Income for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Cash Flows for the Years Ended December 31, 2019, 2018 and 2017

Consolidated Statements of Partners' Equity and Mezzanine Equity for the Years Ended December 31, 2019, 2018 and 2017

Notes to Consolidated Financial Statements

(2) Financial Statement Schedules and Other Financial Information. No financial statement schedules are submitted because either they are inapplicable or because the required information is included in the consolidated financial statements or notes thereto.

(3) Exhibits.

The following are filed or furnished, as applicable, as part of this Form 10-K:

Exhibit Number	Description	Incorporated by Reference to the Following Document
3.01	Amended and Restated Certificate of Limited Partnership of Shamrock Logistics, L.P., effective January 1, 2002	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.3
3.02	Amendment to Certificate of Limited Partnership of Valero L.P., dated March 21, 2007 and effective April 1, 2007	NuStar Energy L.P.'s Current Report on Form 8-K filed March 27, 2007 (File No. 001-16417), Exhibit 3.01
3.03	Eighth Amended and Restated Agreement of Limited Partnership of NuStar Energy L.P., dated as of July 20, 2018	NuStar Energy L.P.'s Current Report on Form 8-K filed July 20, 2018 (File No. 001-16417), Exhibit 3.1
3.04	Amended and Restated Certificate of Limited Partnership of Shamrock Logistics Operations, L.P., dated as of January 7, 2002 and effective January 8, 2002	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.8
3.05	Certificate of Amendment to Certificate of Limited Partnership of Valero Logistics Operations, L.P., dated March 21, 2007 and effective April 1, 2007	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2007 (File No. 001-16417), Exhibit 3.03
3.06	Certificate of Amendment to Certificate of Limited Partnership of NuStar Logistics, L.P., dated and effective as of March 18, 2014	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2014 (File No. 001-16417), Exhibit 3.09
3.07	Second Amended and Restated Agreement of Limited Partnership of Shamrock Logistics Operations, L.P., dated as of April 16, 2001	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.9
3.08	First Amendment to Second Amended and Restated Agreement of Limited Partnership of Shamrock Logistics Operations, L.P., effective as of April 16, 2001	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2001 (File No. 001-16417), Exhibit 4.1
3.09	Second Amendment to Second Amended and Restated Agreement of Limited Partnership of Shamrock Logistics Operations, L.P., dated as of January 7, 2002	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.10

Exhibit Number	Description	Incorporated by Reference to the Following Document
3.10	<u>Certificate of Limited Partnership of Riverwalk Logistics, L.P.,</u> <u>dated as of June 5, 2000</u>	NuStar Energy L.P.'s Registration Statement on Form S-1 filed August 14, 2000 (File No. 333-43668), Exhibit 3.7
3.11	First Amended and Restated Limited Partnership Agreement of Riverwalk Logistics, L.P., dated as of April 16, 2001	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.16
3.12	Certificate of Formation of Shamrock Logistics GP, LLC, dated as of December 7, 1999	NuStar Energy L.P.'s Registration Statement on Form S-1 filed August 14, 2000 (File No. 333-43668), Exhibit 3.9
3.13	Certificate of Amendment to Certificate of Formation of Shamrock Logistics GP, LLC, dated as of December 31, 2001	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2001 (File No. 001-16417), Exhibit 3.14
3.14	Certificate of Amendment to Certificate of Formation of Valero GP, LLC, dated March 21, 2007 and effective April 1, 2007	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2007 (File No. 001-16417), Exhibit 3.02
3.15	Second Amended and Restated Limited Liability Company Agreement of NuStar GP, LLC, dated as of July 20, 2018	NuStar Energy L.P.'s Current Report on Form 8-K filed July 20, 2018 (File No. 001-16417), Exhibit 3.2
4.01	<u>Description of Securities</u>	*
4.02	Indenture, dated as of July 15, 2002, among Valero Logistics Operations, L.P., as Issuer, Valero L.P., as Guarantor, and The Bank of New York, as Trustee, relating to Senior Debt Securities	NuStar Energy L.P.'s Current Report on Form 8-K filed July 15, 2002 (File No. 001-16417), Exhibit 4.1
4.03	Third Supplemental Indenture, dated as of July 1, 2005, to Indenture dated as of July 15, 2002, as amended and supplemented, among Valero Logistics Operations, L.P., Valero L.P., Kaneb Pipe Line Operating Partnership, L.P., and The Bank of New York Trust Company, N.A.	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2005 (File No. 001-16417), Exhibit 4.02
4.04	Instrument of Resignation, Appointment and Acceptance, dated March 31, 2008, among NuStar Logistics, L.P., NuStar Energy L.P., Kaneb Pipeline Operating Partnership, L.P., The Bank of New York Trust Company N.A., and Wells Fargo Bank, National Association	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2008 (File No. 001-16417), Exhibit 4.05
4.05	Fifth Supplemental Indenture, dated as of August 12, 2010, to Indenture dated as of July 15, 2002, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Successor Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed August 16, 2010 (File No. 001-16417), Exhibit 4.3
4.06	Sixth Supplemental Indenture, dated as of February 2, 2012, to Indenture dated as of July 15, 2002, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Successor Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed February 7, 2012 (File No. 001-16417), Exhibit 4.3

Exhibit Number	Description	Incorporated by Reference to the Following Document		
4.07	Seventh Supplemental Indenture, dated as of August 19, 2013, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Successor Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed August 23, 2013 (File No. 001-16417), Exhibit 4.3		
4.08	Eighth Supplemental Indenture, dated as of April 28, 2017, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Successor Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed April 28, 2017 (File No. 001-16417), Exhibit 4.4		
4.09	Ninth Supplemental Indenture, dated as of May 22, 2019, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Successor Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed May 22, 2019 (File No. 001-16417), Exhibit 4.3		
4.10	Indenture, dated as of January 22, 2013, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Guarantor, and Wells Fargo Bank, National Association, as Trustee, relating to Subordinated Debt Securities	NuStar Energy L.P.'s Current Report on Form 8-K filed January 22, 2013 (File No. 001-16417), Exhibit 4.1		
4.11	First Supplemental Indenture, dated as of January 22, 2013, among NuStar Logistics, L.P., as Issuer, NuStar Energy L.P., as Parent Guarantor, NuStar Pipeline Operating Partnership L.P., as Affiliate Guarantor, and Wells Fargo Bank, National Association, as Trustee	NuStar Energy L.P.'s Current Report on Form 8-K filed January 22, 2013 (File No. 001-16417), Exhibit 4.2		
4.12	Registration Rights Agreement, dated as of June 29, 2018, by and among NuStar Energy L.P. and the Purchasers party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed June 29, 2018 (File No. 001-16417), Exhibit 4.2		
10.01	Amended and Restated 5-Year Revolving Credit Agreement, dated as of October 29, 2014, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent, SunTrust Bank and Mizuho Bank, Ltd., as Co-Syndication Agents, Wells Fargo Bank, National Association and PNC Bank, National Association, as Co-Documentation Agents, and J.P. Morgan Securities LLC, SunTrust Robinson Humphrey, Inc., Mizuho Bank, Ltd., Wells Fargo Securities, LLC and PNC Capital Markets LLC, as Joint Bookrunners and Joint Lead Arrangers	NuStar Energy L.P.'s Current Report on Form 8-K filed October 31, 2014 (File No. 001-16417), Exhibit 10.1		
10.02	First Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of March 19, 2015, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2015 (File No. 001-16417), Exhibit 10.01		

Exhibit Number	Description	Incorporated by Reference to the Following Document			
10.03	Second Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of August 22, 2017, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed August 22, 2017 (File No. 001-16417), Exhibit 10.01			
10.04	Third Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of November 22, 2017, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed November 22, 2017 (File No. 001-16417), Exhibit 10.01			
10.05	Fourth Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of March 28, 2018, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed March 28, 2018 (File No. 001-16417), Exhibit 10.02			
10.06	Fifth Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of June 29, 2018, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed June 29, 2018 (File No. 001-16417), Exhibit 10.3			
10.07	Sixth Amendment to Amended and Restated 5-Year Revolving Credit Agreement, dated as of September 12, 2019, among NuStar Logistics, L.P., NuStar Energy L.P., JPMorgan Chase Bank, N.A., as Administrative Agent, and the Lenders party thereto	NuStar Energy L.P.'s Current Report on Form 8-K filed September 12, 2019 (File No. 001-16417), Exhibit 10.01			
10.08	<u>Lease Agreement Between Parish of St. James, State of</u> <u>Louisiana and NuStar Logistics, L.P. dated as of July 1, 2010</u>	NuStar Energy L.P.'s Current Report on Form 8-K filed July 21, 2010 (File No. 001-16417), Exhibit 10.01			
10.09	Letter of Credit Agreement dated June 5, 2012 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Corporate Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed June 12, 2012 (File No. 001-16417), Exhibit 10.01			
10.10	First Amendment to Letter of Credit Agreement, dated as of June 29, 2012, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Corporate Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed July 6, 2012 (File No. 001-16417), Exhibit 10.2			
10.11	Second Amendment to Letter of Credit Agreement, dated as of January 17, 2013, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Corporate Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2014 (File No. 001-16417), Exhibit 10.10			
10.12	Third Amendment to Letter of Credit Agreement, dated as of March 8, 2013, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Corporate Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2014 (File No. 001-16417), Exhibit 10.11			
10.13	Fourth Amendment to Letter of Credit Agreement, dated as of April 19, 2013, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Corporate Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2014 (File No. 001-16417), Exhibit 10.12			

Exhibit Number	Description	Incorporated by Reference to the Following Document		
10.14	Fifth Amendment to Letter of Credit Agreement, dated as of April 23, 2014, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2014 (File No. 001-16417), Exhibit 10.13		
10.15	Sixth Amendment to Letter of Credit Agreement, dated as of November 3, 2014, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed November 6, 2014 (File No. 001-16417), Exhibit 10.1		
10.16	Seventh Amendment to Letter of Credit Agreement, dated as of April 30, 2015, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2015 (File No. 001-16417), Exhibit 10.02		
10.17	Eighth Amendment to Letter of Credit Agreement, dated as of May 6, 2016, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2016 (File No. 001-16417), Exhibit 10.01		
10.18	Ninth Amendment to Letter of Credit Agreement, dated as of April 17, 2017, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2017 (File No. 001-16417), Exhibit 10.03		
10.19	Tenth Amendment to Letter of Credit Agreement, dated as of April 10, 2018, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2018 (File No. 001-16417), Exhibit 10.07		
10.20	Eleventh Amendment to Letter of Credit Agreement, dated as of April 10, 2019, among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and Mizuho Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2019 (File No. 001-16417), Exhibit 10.01		
10.21	<u>Lease Agreement between Parish of St. James, State of Louisiana</u> <u>and NuStar Logistics, L.P. dated as of December 1, 2010</u>	NuStar Energy L.P.'s Current Report on Form 8-K filed December 30, 2010 (File No. 001-16417), Exhibit 10.01		
10.22	Letter of Credit Agreement dated as of September 3, 2014 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed September 9, 2014 (File No. 001-16417), Exhibit 10.1		
10.23	Amendment No. 1 to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of November 3, 2014 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed November 6, 2014 (File No. 001-16417), Exhibit 10.3		

Exhibit Number	Description	Incorporated by Reference to the Following Document		
10.24	Maturity Extension Letter (Amendment No. 2) to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of August 19, 2015 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2015 (File No. 001-16417), Exhibit 10.01		
10.25	Maturity Extension Letter (Amendment No. 3) to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of July 15, 2016 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2016 (File No. 001-16417), Exhibit 10.02		
10.26	Maturity Extension Letter (Amendment No. 4) to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of July 13, 2017 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2017 (File No. 001-16417), Exhibit 10.02		
10.27	Maturity Extension Letter (Amendment No. 5) to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of July 12, 2018 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and MUFG Bank, Ltd. (formerly known as The Bank of Tokyo Mitsubishi UFJ, Ltd.), as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2018 (File No. 001-16417), Exhibit 10.05		
10.28	Maturity Extension Letter (Amendment No.6) to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of July 15, 2019 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and MUFG Bank, Ltd., as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2019 (File No. 001-16417), Exhibit 10.06		
10.29	Lease Agreement between Parish of St. James, State of Louisiana and NuStar Logistics, L.P. dated as of August 1, 2011	NuStar Energy L.P.'s Current Report on Form 8-K filed August 10, 2011 (File No. 001-16417), Exhibit 10.01		
10.30	Letter of Credit Agreement dated as of June 5, 2013 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Nova Scotia, as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed June 11, 2013 (File No. 001-16417), Exhibit 10.01		
10.31	Amendment No. 1 to Letter of Credit Agreement and Subsidiary Guaranty Agreement dated as of November 3, 2014 among NuStar Logistics, L.P., NuStar Energy L.P., the Lenders party thereto and The Bank of Nova Scotia, as Issuing Bank and Administrative Agent	NuStar Energy L.P.'s Current Report on Form 8-K filed November 6, 2014 (File No. 001-16417), Exhibit 10.2		
10.32	Purchase and Sale Agreement, dated as of June 15, 2015, among NuStar Energy Services, Inc., NuStar Logistics, L.P., NuStar Pipeline Operating Partnership L.P. and NuStar Supply & Trading LLC, as Originators, NuStar Energy L.P., as Servicer, and NuStar Finance LLC, as Buyer	NuStar Energy L.P.'s Current Report on Form 8-K filed June 19, 2015 (File No. 001-16417), Exhibit 10.1		

Exhibit Number	Description	Incorporated by Reference to the Following Document			
10.33	Receivables Financing Agreement, dated as of June 15, 2015, by and among NuStar Finance LLC, as Borrower, the persons from time to time party thereto as Lenders and Group Agents, PNC Bank, National Association, as Administrative Agent, and NuStar Energy L.P., as initial Servicer	NuStar Energy L.P.'s Current Report on Form 8-K filed June 19, 2015 (File No. 001-16417), Exhibit 10.2			
10.34	Omnibus Amendment, dated as of January 15, 2016, which is the First Amendment to the Purchase and Sale Agreement referenced above and the First Amendment to the Receivables Financing Agreement referenced above among the respective parties thereto	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2015 (File No. 001-16417), Exhibit 10.26			
10.35	Second Amendment to Purchase and Sale Agreement, dated as of September 20, 2017, by and among the Originators listed therein, NuStar Energy L.P., NuStar Finance LLC, Mizuho Bank, Ltd. and PNC Bank, National Association	NuStar Energy L.P.'s Current Report on Form 8-K filed September 20, 2017 (File No. 001-16417), Exhibit 10.01			
10.36	Second Amendment to Receivables Financing Agreement, dated as of September 20, 2017, by and among NuStar Finance, LLC, as Borrower, NuStar Energy L.P., as initial Servicer, Mizuho Bank, Ltd. and PNC Bank, National Association	NuStar Energy L.P.'s Current Report on Form 8-K filed September 20, 2017 (File No. 001-16417), Exhibit 10.02			
10.37	Third Amendment to Receivables Financing Agreement, dated as of March 28, 2018, by and among NuStar Finance, LLC, as Borrower, NuStar Energy L.P., as initial Servicer, Mizuho Bank, Ltd. and PNC Bank, National Association	NuStar Energy L.P.'s Current Report on Form 8-K filed March 28, 2018 (File No. 001-16417), Exhibit 10.01			
10.38	Fourth Amendment to Receivables Financing Agreement, dated as of April 29, 2019, by and among NuStar Finance, LLC, as Borrower, NuStar Energy L.P., as initial Servicer, Mizuho Bank, Ltd. and PNC Bank, National Association	NuStar Energy L.P.'s Current Report on Form 8-K filed April 29, 2019 (File No. 001-16417), Exhibit 10.1			
+10.39	NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan, amended and restated as of January 28, 2016	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2017 (File No. 001-16417), Exhibit 10.30			
+10.40	First Amendment to the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan, dated as of February 7, 2018	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2017 (File No. 001-16417), Exhibit 10.31			
+10.41	Form of Restricted Unit Award Agreement under the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2016 (File No. 001-16417), Exhibit 10.28			
+10.42	Form of 2017 Performance Unit Award Agreement under the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2017 (File No. 001-16417), Exhibit 10.01			
+10.43	Form of 2018 Performance Unit Award Agreement under the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan	NuStar Energy L.P.'s Current Report on Form 8-K filed July 25, 2018 (File No. 001-16417), Exhibit 10.1			
+10.44	Form of Non-employee Director Restricted Unit Award Agreement under the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2016 (File No. 001-16417), Exhibit 10.31			

Exhibit Number	Description	Incorporated by Reference to the Following Document		
+10.45	Form of 2018 Non-employee Director Restricted Unit Award Agreement under the NuStar GP, LLC Fifth Amended and Restated 2000 Long-Term Incentive Plan	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2018 (File No. 001-16417), Exhibit 10.08		
+10.46	NuStar GP Holdings, LLC Long-Term Incentive Plan, amended and restated as of April 1, 2007	NuStar GP Holdings, LLC's Quarterly Report on Form 10-Q for quarter ended June 30, 2007 (File No. 001-32040), Exhibit 10.04		
+10.47	First Amendment to the NuStar GP Holdings, LLC Long-Term Incentive Plan, dated as of February 7, 2018	NuStar GP Holdings, LLC's Annual Report on Form 10-K for year ended December 31, 2017 (File No. 001-32040), Exhibit 10.46		
+10.48	Form of Converted Award Agreement under the NuStar GP Holdings, LLC Amended and Restated Long-Term Incentive Plan	NuStar Energy L.P.'s Current Report on Form 8-K filed July 20, 2018 (File No. 001-16417), Exhibit 10.1		
+10.49	Form of Restricted Unit Award Agreement under the NuStar GP Holdings, LLC Amended and Restated Long-Term Incentive Plan	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2018 (File No. 001-16417), Exhibit 10.06		
+10.50	Form of Non-employee Director Restricted Unit Award Agreement under the NuStar GP Holdings, LLC Amended and Restated Long-Term Incentive Plan	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2018 (File No. 001-16417), Exhibit 10.07		
+10.51	NuStar Energy L.P. 2019 Long-Term Incentive Plan	NuStar Energy L.P.'s Current Report on Form 8-K filed April 23, 2019 (File No. 001-16417), Exhibit 10.1		
+10.52	Form of Restricted Unit Award Agreement under the NuStar Energy L.P. 2019 Long-Term Incentive Plan	NuStar Energy L.P.'s Current Report on Form 8-K filed April 23, 2019 (File No. 001-16417), Exhibit 10.2		
+10.53	Form of Non-employee Director Restricted Unit Award Agreement under the NuStar Energy L.P. 2019 Long-Term Incentive Plan	NuStar Energy L.P.'s Current Report on Form 8-K filed April 23, 2019 (File No. 001-16417), Exhibit 10.3		
+10.54	Form of 2019 Performance Unit Award Agreement under the NuStar Energy L.P. 2019 Long-Term Incentive Plan	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended June 30, 2019 (File No. 001-16417), Exhibit 10.07		
+10.55	NuStar Energy L.P. Annual Bonus Plan	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2006 (File No. 001-16417), Exhibit 10.18		
+10.56	Form of NuStar Energy L.P. Amended and Restated Change of Control Severance Agreement	NuStar Energy L.P.'s Current Report on Form 8-K filed August 4, 2016 (File No. 001-16417), Exhibit 10.1		
+10.57	NuStar Excess Pension Plan, amended and restated effective as of January 1, 2014	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2015 (File No. 001-16417), Exhibit 10.45		
+10.58	Amendment to NuStar Excess Pension Plan, effective October 9, 2018	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2018 (File No. 001-16417), Exhibit 10.04		
+10.59	NuStar Excess Thrift Plan, amended and restated effective as of January 1, 2008	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2008 (File No. 001-16417), Exhibit 10.30		
+10.60	Amendment to NuStar Excess Thrift Plan, effective as of January 1, 2017	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended March 31, 2017 (File No. 001-16417), Exhibit 10.02		
+10.61	Amendment No. 2 to NuStar Excess Thrift Plan, effective October 9, 2018	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2018 (File No. 001-16417), Exhibit 10.05		

Exhibit Number	Description	Incorporated by Reference to the Following Document				
10.62	Assignment and Assumption Agreement dated March 1, 2016 between NuStar GP, LLC and NuStar Services Company LLC	NuStar Energy L.P.'s Current Report on Form 8-K filed March 1, 2016 (File No. 001-16417), Exhibit 10.1				
10.63	Amended and Restated Aircraft Time Sharing Agreement, dated as of September 4, 2009, between NuStar Logistics, L.P. and William E. Greehey	NuStar Energy L.P.'s Annual Report on Form 10-K for year ended December 31, 2009 (File No. 001-16417), Exhibit 10.24				
10.64	First Amendment to Amended and Restated Aircraft Time Sharing Agreement, dated as of August 18, 2017, between NuStar Logistics, L.P. and William E. Greehey	NuStar Energy L.P.'s Quarterly Report on Form 10-Q for quarter ended September 30, 2017 (File No. 001-16417), Exhibit 10.02				
21.01	List of subsidiaries of NuStar Energy L.P.	*				
23.01	Consent of KPMG LLP dated February 27, 2020	*				
24.01	Powers of Attorney (included in signature page of this Form 10- \underline{K}).	*				
31.01	Rule 13a-14(a) Certification (under Section 302 of the Sarbanes-Oxley Act of 2002) of principal executive officer	*				
31.02	Rule 13a-14(a) Certification (under Section 302 of the Sarbanes- Oxley Act of 2002) of principal financial officer	*				
32.01	Section 1350 Certification (under Section 906 of the Sarbanes- Oxley Act of 2002) of principal executive officer	**				
32.02	Section 1350 Certification (under Section 906 of the Sarbanes- Oxley Act of 2002) of principal financial officer	****				
101.INS	Inline XBRL Instance Document - The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	*				
101.SCH	Inline XBRL Taxonomy Extension Schema Document	*				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	*				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	*				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	*				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	*				
104	Cover page Interactive Data File - Formatted in Inline XBRL and contained in Exhibit 101	*				

^{*} Filed herewith.

^{**} Furnished herewith.

⁺ Identifies management contracts or compensatory plans or arrangements required to be filed as an exhibit hereto pursuant to Item 15(c) of Form 10-K.

Table of Contents

An electronic copy of this Form 10-K is available on our website, free of charge, at http://www.nustarenergy.com (select the "Investors" link, then the "SEC Filings" link). A paper copy of the Form 10-K also is available without charge to unitholders upon written request at the address below. Copies of exhibits filed as a part of this Form 10-K may be obtained by unitholders of record at a charge of \$0.15 per page, minimum \$5.00 each request. Direct inquiries to Corporate Secretary, NuStar Energy L.P., 19003 IH-10 West, San Antonio, Texas 78257 or corporatesecretary@nustarenergy.com.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NUSTAR ENERGY L.P.

(Registrant)

By: Riverwalk Logistics, L.P., its general partner By: NuStar GP, LLC, its general partner

By: /s/ Bradley C. Barron

Bradley C. Barron

President and Chief Executive Officer

February 27, 2020

By: /s/ Thomas R. Shoaf

Thomas R. Shoaf

Executive Vice President and Chief Financial Officer

February 27, 2020

By: /s/ Jorge A. del Alamo

Jorge A. del Alamo

Senior Vice President and Controller

February 27, 2020

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Bradley C. Barron, Thomas R. Shoaf and Amy L. Perry, or any of them, each with power to act without the other, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all subsequent amendments and supplements to this Annual Report on Form 10-K, and to file the same, or cause to be filed the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby qualifying and confirming all that said attorney-in-fact and agent or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ William E. Greehey	Chairman of the Board	February 27, 2020
William E. Greehey		
/s/ Bradley C. Barron Bradley C. Barron	President, Chief Executive Officer and Director	February 27, 2020
	(Principal Executive Officer)	
/s/ Thomas R. Shoaf	Executive Vice President	February 27, 2020
Thomas R. Shoaf	and Chief Financial Officer (Principal Financial Officer)	
/s/ Jorge A. del Alamo	Senior Vice President and Controller	February 27, 2020
Jorge A. del Alamo	(Principal Accounting Officer)	
/s/ J. Dan Bates	Director	February 27, 2020
J. Dan Bates		
/s/ William B. Burnett	Director	February 27, 2020
William B. Burnett		
/s/ James F. Clingman, Jr.	Director	February 27, 2020
James F. Clingman, Jr.		
/s/ Dan J. Hill	Director	February 27, 2020
Dan J. Hill		
/s/ Jelynne LeBlanc-Burley	Director	February 27, 2020
Jelynne LeBlanc-Burley		
/s/ Robert J. Munch	Director	February 27, 2020
Robert J. Munch		
/s/ W. Grady Rosier	Director	February 27, 2020
W. Grady Rosier		

DESCRIPTION OF SECURITIES

NuStar Energy L.P. ("NuStar Energy") has four classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), each of which is listed on the New York Stock Exchange ("NYSE"), as set forth in the table below.

Title of Class	Trading Symbol	Exchange
Common Units ("Common Units")	NS	NYSE
Series A Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units ("Series A Preferred Units")	NSprA	NYSE
Series B Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units ("Series B Preferred Units")	NSprB	NYSE
Series C Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units ("Series C Preferred Units")	NSprC	NYSE

The following summary of the material terms of our Common Units, Series A Preferred Units, Series B Preferred Units and Series C Preferred Units is based upon our Eighth Amended and Restated Agreement of Limited Partnership, dated as of July 20, 2018 (the "partnership agreement"). The summary is not complete and is qualified by reference to our partnership agreement, which is filed as an exhibit to this Annual Report on Form 10-K and is incorporated herein by reference.

DESCRIPTION OF COMMON UNITS

The Common Units represent limited partner interests that entitle the holders to participate in NuStar Energy's cash distributions and to exercise the rights and privileges as set forth in the partnership agreement. Please read "The Partnership Agreement" below.

Voting Rights

Each holder of Common Units is entitled to one vote for each unit on all matters submitted to a vote of the Common Unitholders, subject to any limitations contained in NuStar Energy's partnership agreement. See "The Partnership Agreement—Voting Rights" below.

Cash Distributions

Within 45 days after the end of each quarter, NuStar Energy will distribute all of its available cash to its Common Unitholders of record on the applicable record date.

Available cash is defined in NuStar Energy's partnership agreement and generally means, with respect to any fiscal quarter, the sum of all cash and cash equivalents at the end of such quarter, plus any cash resulting from working capital borrowings made subsequent to the end of such quarter, less the amount of any cash reserves that NuStar Energy's general partner determines in its reasonable discretion are necessary or appropriate to:

- provide for the proper conduct of NuStar Energy's business, including reserves for future capital expenditures and anticipated credit needs;
- comply with applicable law or any debt instrument or other agreement or obligation;
- · provide funds for payments to holders of NuStar Energy's preferred units; or
- provide funds for distributions with respect to any one or more of the next four fiscal quarters.

NuStar Energy's policy is, to the extent it has sufficient available cash from operating surplus, as defined in the partnership agreement, to distribute to each Common Unitholder at least the minimum quarterly distribution of \$0.60 per quarter or \$2.40 per year. However, there is no guarantee that NuStar Energy will pay the minimum quarterly distribution on the Common Units in any quarter and NuStar Energy may be prohibited from making any distributions to unitholders if it would cause an event of default under the terms of NuStar Energy's indebtedness. In addition, NuStar Energy's preferred units rank senior to the Common Units with respect to distribution rights and rights upon liquidation. If NuStar Energy does not pay the required distributions (including any arrears) on its preferred units, it will be unable to pay distributions on the Common Units.

Exchange Listing

Our outstanding Common Units are listed on the NYSE under the ticker symbol "NS." Any additional Common Units we issue will also be listed on the NYSE.

Transfer Agent and Registrar

Our transfer agent and registrar for the Common Units is Computershare Trust Company, N.A.

DESCRIPTION OF SERIES A, SERIES B AND SERIES C PREFERRED UNITS

The Series A Preferred Units, Series B Preferred Units and Series C Preferred Units (collectively, the "Series A, B and C Preferred Units") represent limited partner interests that entitle the holders to receive cash distributions and to exercise the rights and privileges as set forth in the partnership agreement. Please read "The Partnership Agreement" below.

The following table summarizes the original issuance dates, price per unit, fixed and floating distribution rates and optional redemption dates of our Series A, B and C Preferred Units, as further described below.

Units	Original Issuance Date	Price per Unit	Fixed Distribution Rate per Annum (as a Percentage of the \$25.00 Liquidation Preference per Unit)	R	Fixed Distribution Rate per Unit per Annum	Optional Redemption Date/Date at Which Distribution Rate Becomes Floating	Floating Annual Rate (as a Percentage of the \$25.00 Liquidation Preference per Unit)
Series A Preferred Units	November 25, 2016	\$ 25.00	8.50%	\$	2.125	December 15, 2021	Three-month LIBOR plus 6.766%
Series B Preferred Units	April 28, 2017	\$ 25.00	7.625%	\$	1.90625	June 15, 2022	Three-month LIBOR plus 5.643%
Series C Preferred Units	November 30, 2017	\$ 25.00	9.00%	\$	2.25	December 15, 2022	Three-month LIBOR plus 6.88%

Ranking; Maturity

The Series A, B and C Preferred Units rank senior to NuStar Energy's Common Units with respect to the payment of distributions and distribution of assets upon liquidation, dissolution and winding up. The Series A, B and C Preferred Units rank on parity with each other and with any other securities with terms expressly providing that they rank on parity with the Series A, B and C Preferred Units as to the payment of distributions and distribution of assets upon liquidation, dissolution and winding up, such as NuStar Energy's Series D Cumulative Convertible Preferred Units ("Series D Preferred Units," and collectively with the Series A, B and C Preferred Units, "Preferred Units"). The Series A, B and C Preferred Units have no stated maturity and are not subject to mandatory redemption or any sinking fund and will remain outstanding indefinitely unless repurchased or redeemed by NuStar Energy or converted into its Common Units in connection with a change of control, as described below.

Distributions

Holders of our Series A, B and C Preferred Units are entitled to receive, when, as and if declared by our general partner, out of legally available funds, quarterly cumulative cash distributions. Distributions on the Series A, B and C Preferred Units are cumulative from the original issuance date, and are payable quarterly in arrears on the 15th day of each of March, June, September and December (or the next business day) of each year to holders of record on the first business day of each payment month. Distributions on the Series A, B and C Preferred Units are payable from and including the original issuance date to, but not including, the date at which the distribution rate for each series becomes a floating rate, as set forth in the table above. On and after the date at which the distribution rate for a specific series becomes a floating rate period"), distributions accumulate at a percentage of the \$25.00 liquidation preference equal to the annual floating rate set forth in the

table above for such series. During the floating rate period, the calculation agent determines LIBOR as provided in the partnership agreement.

Optional Redemption; Conversion

At any time on or after the optional redemption dates set forth in the table above for each of the Series A, B and C Preferred Units, NuStar Energy may, at its option, redeem the Series A, B and C Preferred Units, in whole or in part, out of amounts legally available therefor, by paying \$25.00 per unit plus an amount equal to all accumulated and unpaid distributions thereon to the date of redemption, whether or not declared. In addition, NuStar Energy may redeem the Series A, B and C Preferred Units following certain changes of control, as well as at any time within 120 days after the conclusion of any review or appeal process instituted by NuStar Energy following the occurrence of a rating event, each as described in the partnership agreement.

For purposes of the Series A, B and C Preferred Units, a "change of control" generally means the occurrence of either (1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by merger, consolidation or business combination), in one or a series of related transactions, of all or substantially all of the assets of NuStar Energy and its subsidiaries taken as a whole to any person or (2) the completion of any transaction (including any merger, consolidation or business combination), the result of which is that any person other than NuStar GP Holdings, LLC and its subsidiaries becomes the direct or indirect beneficial owner of more than 50% of the voting interests in NuStar Energy's general partner and, in the case of either (1) or (2), neither NuStar Energy nor such acquiring person has a class of common equity securities listed or admitted to trading on any National Securities Exchange. A "rating event" generally means a change by any nationally recognized statistical rating organization that publishes a rating for NuStar Energy to its equity credit criteria for securities such as the Series A, B and C Preferred Units, as in effect on the original issuance date of the applicable series (the "current criteria"), which change results in (1) any shortening of the length of time for which the current criteria are scheduled to be in effect with respect to such series or (2) a lower equity credit being given to such series than the equity credit that would have been assigned to such series by such rating agency under the current criteria.

If NuStar Energy does not exercise the option to redeem following a change of control, then the holders of the Series A, B and C Preferred Units have the option to convert their Series A, B and C Preferred Units into a number of Common Units per Series A, B and C Preferred Unit, respectively, as set forth for each such series in the partnership agreement. If NuStar Energy exercises its redemption rights relating to any Series A, B or C Preferred Units following a change of control, the holders of those units will not have the conversion right described above with respect to the units called for redemption.

Voting Rights

Holders of Series A, B and C Preferred Units have only limited voting rights with respect to potential amendments to the partnership agreement that have a material adverse effect on the existing terms of the Series A, B and C Preferred Units, respectively, and in certain other limited circumstances or as required by law. See "The Partnership Agreement—Voting Rights" below.

Exchange Listing

Our outstanding Series A, B and C Preferred Units are listed on the NYSE under the ticker symbols "NSprA," "NSprB" and "NSprC," respectively. Any additional Series A, B and C Preferred Units we issue will also be listed on the NYSE.

Calculation Agent

In the case of the Series A Preferred Units and the Series B Preferred Units, the calculation agent will be Wells Fargo Bank, National Association and its successors and assigns or any other calculation agent appointed by NuStar Energy's general partner. In the case of the Series C Preferred Units, the calculation agent will be the person appointed by NuStar Energy's general partner before the start of the floating rate period for the Series C Preferred Units, and its successors and assigns or any other calculation agent appointed by NuStar Energy's general partner.

THE PARTNERSHIP AGREEMENT

The material provisions of NuStar Energy's partnership agreement are summarized below.

Organization and Duration

NuStar Energy was organized in December 1999 and will continue in existence until dissolved in accordance with the partnership agreement.

Purpose

The purpose of NuStar Energy is: (1) to serve as a partner of NuStar Logistics, one of NuStar Energy's primary operating subsidiaries, and its other subsidiaries established for conducting the business of NuStar Energy (collectively, the "Operating Partnership"); (2) to engage in any business activities that may be engaged in by the Operating Partnership or that are approved by NuStar Energy's general partner, provided that NuStar Energy's general partner must reasonably determine that such activity generates or enhances the operations of any activity that generates "qualifying income," as this term is defined in Section 7704 of the Internal Revenue Code of 1986, as amended; (3) to serve as a member of NuStar GP Holdings, LLC and to exercise all the rights and powers held by NuStar Energy as a member of NuStar GP Holdings, LLC as the member of NuStar GP, LLC; and (4) to do anything necessary or appropriate to the foregoing, including the making of capital contributions or loans to NuStar Energy's subsidiaries. NuStar Energy's general partner has no obligation or duty to NuStar Energy, its limited partners or assignees of partnership interests to propose or approve, and in its discretion may decline to propose or approve, the conduct by NuStar Energy of any business.

Power of Attorney

Each limited partner, and each person who acquires a limited partner interest and executes and delivers a transfer application, grants to NuStar Energy's general partner and, if appointed, a liquidator, a power of attorney to, among other things, execute and file documents required for the qualification, continuance or dissolution of NuStar Energy. The power of attorney also grants NuStar Energy's general partner and the liquidator the authority to amend the partnership agreement, and to make consents and waivers under the partnership agreement.

Capital Contributions

NuStar Energy's unitholders are not obligated to make additional capital contributions, except as described below under "—Limited Liability."

Limited Liability

Assuming that a limited partner does not participate in the control of NuStar Energy's business within the meaning of the Delaware Revised Uniform Limited Partnership Act (the "Delaware law"), and that it otherwise acts in conformity with the provisions of NuStar Energy's partnership agreement, the limited partner's liability under the Delaware law will be limited, subject to possible exceptions, to the amount of capital the limited partner is obligated to contribute to NuStar Energy for such partner's units plus the partner's share of any undistributed profits and assets and any funds wrongfully distributed to it, as described below. If it were determined, however, that the right or exercise of the right, by the limited partners as a group:

- to remove or replace NuStar Energy's general partner;
- to approve some amendments to the partnership agreement; or
- to take other action under the partnership agreement

constituted "participation in the control" of NuStar Energy's business for the purposes of the Delaware law, then the limited partners could be held personally liable for NuStar Energy's obligations under the laws of Delaware, to the same extent as its general partner. This liability would extend to persons who transact business with NuStar Energy who reasonably believe that a limited partner is a general partner based on the limited partner's conduct.

Neither NuStar Energy's partnership agreement nor the Delaware law specifically provides for legal recourse against NuStar Energy's general partner if a limited partner were to lose limited liability through any fault of NuStar Energy's general partner. While this does not mean that a limited partner could not seek legal recourse, we know of no precedent for this type of a claim in Delaware case law.

Under the Delaware law, a limited partnership may not make a distribution to a partner if, after the distribution, all liabilities of the limited partnership, other than liabilities to partners on account of their partnership interests and liabilities for which the

recourse of creditors is limited to specific property of the partnership, would exceed the fair value of the assets of the limited partnership. For the purpose of determining the fair value of the assets of a limited partnership, the Delaware law provides that the fair value of property subject to liability for which recourse of creditors is limited shall be included in the assets of the limited partnership only to the extent that the fair value of that property exceeds the nonrecourse liability. The Delaware law provides that a limited partner who receives a distribution and knew at the time of the distribution that the distribution was in violation of the Delaware law will be liable to the limited partnership for the amount of the distribution for three years from the date of distribution. Under the Delaware law, an assignee who becomes a substituted limited partner of a limited partnership is liable for the obligations of its assignor to make contributions to the limited partnership, excluding any obligations of the assignor with respect to wrongful distributions, as described above, except the assignee is not obligated for liabilities unknown to it at the time it became a limited partner and that could not be ascertained from the partnership agreement.

NuStar Energy's operating subsidiaries conduct business or own assets in the United States and internationally. Maintenance of NuStar Energy's limited liability as a limited partner or member, respectively, of its operating subsidiaries may require compliance with legal requirements in the jurisdictions in which the operating subsidiary conducts business. Limitations on the liability of limited partners or members for the obligations of a limited partnership or limited liability company have not been clearly established in many jurisdictions. If it were determined that NuStar Energy was, by virtue of NuStar Energy's ownership interest in its subsidiaries or otherwise, conducting business in any state without compliance with the applicable limited partnership or limited liability company statute, or that the right or exercise of the right by the limited partners as a group to remove or replace NuStar Energy's general partner, to approve certain amendments to the partnership agreement, or to take other action under the partnership agreement constituted "participation in the control" of NuStar Energy's business for purposes of the statutes of any relevant jurisdiction, then the limited partners could be held personally liable for NuStar Energy's obligations under the law of that jurisdiction to the same extent as its general partner under the circumstances. NuStar Energy will operate in a manner that its general partner considers reasonable and necessary or appropriate to preserve the limited liability of the limited partners.

Voting Rights

The following matters require the unitholder vote specified below. Matters that require the approval of a "unit majority" require the approval of holders of a majority of the outstanding Common Units and the outstanding Series D Preferred Units (voting on an as-converted basis), voting together as a single class (subject to the limitations set forth in the definition of "Outstanding" in the partnership agreement).

Election of directors to the board

Amendment of the partnership agreement

Merger or the sale of all or substantially all of NuStar Energy's assets

Dissolution of NuStar Energy Removal/Replacement of the general partner Plurality of the votes cast by the limited partners holding outstanding Common Units and Series D Preferred Units (voting on an as-converted basis), voting together as a single class, at a meeting of the limited partners. Please read "— Meetings; Voting."

Certain amendments may be made by NuStar Energy's general partner without the approval of unitholders. Certain other amendments require the approval of a unit majority. Certain other amendments require the approval of the holders of a supermajority of outstanding Common Units and Series D Preferred Units (voting on an as-converted basis), voting together as a single class. Certain amendments that would have a material adverse effect on a class of NuStar Energy interests require the approval of a majority of NuStar Energy interests to be affected by such amendment. Please read "—Amendment of the Partnership Agreement."

The holders of a unit majority. Please read "—Merger, Sale or Other Disposition of Assets."

The holders of a unit majority. Please read "—Termination and Dissolution."

The holders of a unit majority. Please read "—Withdrawal or Removal of the General Partner."

Issuance of Additional Securities

NuStar Energy's partnership agreement authorizes NuStar Energy, subject to any approvals required by the holders of Preferred Units, to issue an unlimited number of additional partnership securities for the consideration and on the terms and conditions established by NuStar Energy's general partner in its sole discretion without the approval of any limited partners.

Except for restrictions arising from the need for approval of the holders of Preferred Units, there are no restrictions under the partnership agreement on the ability of NuStar Energy's general partner to issue partnership securities, including partnership securities junior or senior to the Common Units.

It is possible that NuStar Energy will fund acquisitions through the issuance of additional Common Units or other partnership securities. Holders of any additional Common Units NuStar Energy issues will be entitled to share equally with the then-existing Common Unitholders in NuStar Energy's distributions of available cash and additional partnership securities may be senior to the Common Units with respect to distributions. In addition, the issuance of additional partnership securities may dilute the value of the interests of the then-existing Common Unitholders in NuStar Energy's net assets.

In accordance with Delaware law and the provisions of the partnership agreement, NuStar Energy may also issue additional partnership securities that, in the sole discretion of NuStar Energy's general partner, may have special voting rights to which Common Units are not entitled.

No person will have any preemptive, preferential or other similar right with respect to the issuance of any partnership securities.

Amendment of the Partnership Agreement

General

Amendments to the partnership agreement may be proposed only by or with the consent of NuStar Energy's general partner, which consent may be given or withheld in its sole discretion. In order to adopt a proposed amendment, other than the amendments discussed below, NuStar Energy's general partner is required to seek written approval of the holders of the number of units required to approve the amendment or call a meeting of the limited partners to consider and vote upon the proposed amendment. Except as described below, an amendment must be approved by a unit majority.

Prohibited Amendments

No amendment may be made that would:

- amend, alter, change, repeal or rescind, in any respect, a provision of the partnership agreement that establishes a percentage of outstanding units
 required to take any action, that would have the effect of reducing such voting percentage, unless such amendment is approved by the written
 consent or the affirmative vote of holders of outstanding units whose aggregate outstanding units constitute not less than the voting requirement
 sought to be reduced;
- enlarge the obligations of any limited partner without its consent, unless approved by at least a majority of the type or class of limited partner
 interests so affected;
- enlarge the obligations of, restrict in any way any action by or rights of, or reduce in any way the amounts distributable, reimbursable or otherwise payable by NuStar Energy to its general partner or any of its affiliates without the consent of NuStar Energy's general partner, which may be given or withheld in its sole discretion;
- · change the term of NuStar Energy;
- provide that NuStar Energy is not dissolved upon an election to dissolve NuStar Energy by its general partner that is approved by the holders of a unit majority;
- give any person the right to dissolve NuStar Energy, other than its general partner's right to dissolve NuStar Energy with the approval of the holders of a unit majority; or
- have a material adverse effect on the rights or preferences of any class of partnership securities in relation to other classes of partnership securities, unless approved by the holders of not less than a majority of the outstanding partnership securities of the class affected.

The provision of the partnership agreement prohibiting amendments to the partnership agreement having the effects described in the seven bullets above can be amended, subject to certain exceptions, only upon the approval of the holders of at least 90% of the outstanding Common Units and Series D Preferred Units (voting on an as-converted basis), voting together as a single class. In addition, no amendment may be made to the partnership agreement that would have a material adverse effect on the powers, preferences, duties or special rights of the Preferred Units without first obtaining the affirmative vote or consent of the holders of (a) 66-2/3% of the respective outstanding class of Series A Preferred Units, Series B Preferred Units and Series C Preferred Units or (b) a majority of the outstanding Series D Preferred Units.

No Unitholder Approval

NuStar Energy's general partner may generally make amendments to the partnership agreement without the approval of any partner or assignee to reflect:

- a change in the name of NuStar Energy, the location of the principal place of business of NuStar Energy, the registered agent or the registered office of NuStar Energy;
- the admission, substitution, withdrawal or removal of partners in accordance with the partnership agreement;
- a change that, in the sole discretion of NuStar Energy's general partner, is necessary or advisable to qualify or continue the qualification of NuStar Energy as a limited partnership or a partnership in which the limited partners have limited liability under the laws of any state or to ensure that neither NuStar Energy nor the Operating Partnership will be treated as an association taxable as a corporation or otherwise taxed as an entity for federal income tax purposes;
- an amendment that is necessary, in the opinion of counsel to NuStar Energy, to prevent NuStar Energy, its general partner, NuStar GP, LLC, or any of the directors, officers, agents or trustees of NuStar GP, LLC from in any manner being subjected to the provisions of the Investment Company Act of 1940, the Investment Advisors Act of 1940, or "plan asset" regulations adopted under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), whether or not substantially similar to plan asset regulations currently applied or proposed;
- subject to any restrictions imposed by the terms of the Preferred Units and the limitations on the issuance of additional partnership securities described above, an amendment that in the discretion of NuStar Energy's general partner is necessary or advisable for the authorization of additional partnership securities;
- · any amendment expressly permitted in the partnership agreement to be made by NuStar Energy's general partner acting alone;
- an amendment effected, necessitated or contemplated by a merger agreement that has been approved under the terms of the partnership agreement;
- any amendment that, in the discretion of NuStar Energy's general partner, is necessary or advisable for the formation by NuStar Energy of, or its investment in, any corporation, partnership or other entity, as otherwise permitted by the partnership agreement;
- a change in the fiscal year or taxable year of NuStar Energy and related changes; and
- any other amendments substantially similar to any of the matters described above.

In addition, subject to any restrictions imposed by the terms of the Preferred Units, NuStar Energy's general partner may make amendments to the partnership agreement without the approval of any partner or assignee if those amendments, in the discretion of NuStar Energy's general partner:

- do not adversely affect the limited partners (or any particular class of limited partners) in any material respect;
- are necessary or advisable to satisfy any requirements, conditions or guidelines contained in any opinion, directive, order, ruling or regulation of any federal or state agency or judicial authority or contained in any federal or state statute;
- are necessary or advisable to facilitate the trading of limited partner interests or to comply with any rule, regulation, guideline or requirement of any securities exchange on which the limited partner interests are or will be listed for trading, compliance with any of which NuStar Energy's general partner deems to be in the best interests of NuStar Energy and the limited partners;
- are necessary or advisable for any action taken by NuStar Energy's general partner relating to splits or combinations of partnership securities under the provisions of the partnership agreement; or
- are required to effect the intent of the provisions of the partnership agreement or are otherwise contemplated by the partnership agreement.

Opinion of Counsel and Unitholder Approval

Except for amendments described above under "—No Unitholder Approval" or in connection with a merger, no other amendments to the partnership agreement will become effective without the approval of holders of at least 90% of the outstanding Common Units and Series D Preferred Units (voting on an as-converted basis), voting together as a single class, unless NuStar Energy obtains an opinion of counsel to the effect that the amendment will not affect the limited liability of any limited partner of NuStar Energy under applicable law.

Merger, Sale or Other Disposition of Assets

Subject to certain exceptions, a merger or consolidation of NuStar Energy requires the prior approval of NuStar Energy's general partner. NuStar Energy's general partner must also approve the merger agreement, which must include certain information as set forth in NuStar Energy's partnership agreement. Once approved by NuStar Energy's general partner, the

merger agreement must be submitted to a vote of Common Unitholders and Series D Preferred Unitholders (voting on an as-converted basis), voting together as a single class, and the merger agreement will be approved upon receipt of the affirmative vote or consent of the holders of a unit majority (unless the affirmative vote of the holders of a greater percentage is required under the merger agreement or Delaware law).

Except in connection with a dissolution and liquidation of NuStar Energy or a duly approved merger, NuStar Energy's general partner may not (a) sell, exchange or otherwise dispose of all or substantially all of NuStar Energy's assets in a single transaction or a series of related transactions, or (b) approve on behalf of NuStar Energy the sale, exchange or other disposition of all or substantially all of the assets of the Operating Partnership without the approval of the holders of a unit majority. However, NuStar Energy's general partner may mortgage, pledge, hypothecate or grant a security interest in all or substantially all of the assets of NuStar Energy or the Operating Partnership without the approval of the unitholders. In addition, NuStar Energy's general partner may sell any or all of the assets of NuStar Energy or the Operating Partnership in a forced sale pursuant to the foreclosure of, or other realization upon, any such encumbrance without the approval of the unitholders.

Termination and Dissolution

NuStar Energy will continue in existence as a limited partnership until terminated in accordance with its partnership agreement. NuStar Energy will dissolve upon:

- the election of NuStar Energy's general partner to dissolve NuStar Energy, if approved by the holders of a unit majority;
- the entry of a decree of judicial dissolution of NuStar Energy pursuant to Delaware law;
- the sale of all or substantially all of the assets and properties of NuStar Energy, the Operating Partnership and their respective subsidiaries; or
- the withdrawal or removal of NuStar Energy's general partner or any other event that results in its ceasing to be the general partner other than by
 reason of a transfer of its general partner interest in accordance with the partnership agreement or withdrawal or removal following approval and
 admission of a successor.

Upon a dissolution under the last clause above, the holders of a unit majority may also elect, within specific time limitations, to reconstitute NuStar Energy and continue its business on the same terms and conditions described in the partnership agreement by forming a new limited partnership on terms identical to those in the partnership agreement and having as general partner an entity approved by the holders of a unit majority, subject to receipt by NuStar Energy of an opinion of counsel to the effect that:

- the action would not result in the loss of limited liability of any limited partner; and
- neither NuStar Energy, the reconstituted limited partnership, nor any operating subsidiary would be treated as an association taxable as a corporation or otherwise be taxable as an entity for federal income tax purposes upon the exercise of that right to continue.

Liquidation and Distribution of Proceeds

Upon its dissolution, unless NuStar Energy is reconstituted and continued as a new limited partnership, the liquidator authorized to wind up NuStar Energy's affairs will, acting with all of the powers of NuStar Energy's general partner that the liquidator deems necessary or desirable in its judgment, liquidate NuStar Energy's assets and apply the proceeds of the liquidation as follows. NuStar Energy will first apply the proceeds of liquidation to the payment of, or provision of payment for, its creditors. NuStar Energy will then pay any accumulated and unpaid distributions and the applicable liquidation preference on the Preferred Units. NuStar Energy will distribute any remaining proceeds to Common Unitholders, in accordance with their capital account balances, as adjusted to reflect any gain or loss upon the sale or other disposition of its assets in liquidation. The liquidator may defer liquidation or distribution of NuStar Energy's assets for a reasonable period of time or distribute assets to partners in kind if it determines that a sale would be impractical or would cause undue loss to the partners.

Withdrawal or Removal of the General Partner

NuStar Energy's general partner may withdraw as general partner without first obtaining approval of any unitholder by giving 90 days' written notice, and that withdrawal will not constitute a violation of the partnership agreement. In addition, the partnership agreement permits NuStar Energy's general partner to sell or otherwise transfer all of its general partner interest in NuStar Energy without the approval of the unitholders. Please read "—Transfer of General Partner Interests."

Upon the withdrawal of NuStar Energy's general partner under any circumstances, other than as a result of a transfer of all or a part of its general partner interest in NuStar Energy, the holders of a unit majority may select a successor to that withdrawing

general partner. If a successor is not elected, or is elected but an opinion of counsel regarding limited liability and tax matters cannot be obtained, NuStar Energy will be dissolved, wound up and liquidated, unless within 180 days after that withdrawal, the holders of a unit majority agree in writing to continue the business of NuStar Energy and to appoint a successor general partner. Please read "—Termination and Dissolution."

If NuStar Energy's general partner withdraws under circumstances where such withdrawal does not violate the partnership agreement, and a successor general partner is elected under the terms of the partnership agreement, the departing general partner will have the option to require the successor general partner to purchase its general partner interests for cash. If NuStar Energy's general partner withdraws under circumstances where such withdrawal does violate the partnership agreement, and a successor general partner is elected, the successor general partner will have the option to purchase the general partner interests of the departing general partner. If such general partner interests are not purchased by the successor general partner, they will be converted into Common Units.

NuStar Energy's general partner may not be removed unless that removal is approved by the vote of the holders of not less than a unit majority, and NuStar Energy receives an opinion of counsel regarding limited liability and tax matters. Any removal of NuStar Energy's general partner is also subject to the approval of a successor general partner by the vote of a unit majority.

If NuStar Energy's general partner is removed under circumstances where cause does not exist, and a successor general partner is elected under the partnership agreement, the departing general partner will have the option to require the successor general partner to purchase its general partner interests for cash. If NuStar Energy's general partner is removed under circumstances where cause does exist, and a successor general partner is elected, the successor general partner will have the option to purchase the general partner interests of the departing general partner. If NuStar Energy's general partner interests are not purchased by the successor general partner, they will be converted into Common Units.

"Cause" is narrowly defined to mean that a court of competent jurisdiction has entered a final, non-appealable judgment finding the general partner liable for actual fraud, gross negligence, or willful or wanton misconduct in its capacity as the general partner.

Withdrawal or removal of the general partner of NuStar Energy also constitutes withdrawal or removal of the general partner of the Operating Partnership.

In addition, NuStar Energy will be required to reimburse the departing general partner for all amounts due the departing general partner, including, without limitation, all employee-related liabilities, including severance liabilities, incurred for the termination of any employees employed by the departing general partner for the benefit of NuStar Energy.

Transfer of General Partner Interests

NuStar Energy's general partner may transfer all or any part of its general partner interest in NuStar Energy without unitholder approval.

No transfer by NuStar Energy's general partner of all or any part of its general partner interest is permitted unless (1) the transferee agrees to assume the rights and duties of the general partner and be bound by the partnership agreement, (2) NuStar Energy receives an opinion of counsel regarding limited liability and tax matters and (3) such transferee agrees to purchase all of the partnership interests of the general partner as the general partner of the Operating Partnership and any of NuStar Energy's or the Operating Partnership's subsidiaries.

Change of Management Provisions

NuStar Energy's partnership agreement contains specific provisions that are intended to discourage a person or group from attempting to remove NuStar Energy's general partner or otherwise change management, including the following:

- with certain limited exceptions, any partnership securities held by a person that owns 20% or more of any class of partnership securities then outstanding, other than NuStar Energy's general partner and its affiliates, cannot be voted on any matter; provided, however that such restriction generally does not apply to any Series D Preferred Units held by a person who acquired such Series D Preferred Units pursuant to the Series D Cumulative Convertible Preferred Unit Purchase Agreement, dated as of June 26, 2018, among NuStar Energy L.P. and the purchasers party thereto;
- limiting the ability of unitholders to replace members of the board of directors of NuStar GP, LLC (the "board") by having staggered elections where each director is elected for a three-year term and providing that directors may only be removed for cause; and
- limiting the ability of unitholders to call meetings or to acquire information about NuStar Energy's operations, as well as other provisions limiting the unitholders' ability to influence the manner or direction of management.

Meetings; Voting

An annual meeting of the limited partners for the election of directors to the board, and other matters that NuStar Energy's general partner submits to a vote of the limited partners, will be held in April of each year or on such other date as determined by NuStar Energy's general partner. Special meetings of the limited partners may be called by NuStar Energy's general partner or by limited partners owning 20% or more of the outstanding limited partner interests of the class or classes for which a meeting is proposed.

For the purpose of determining the limited partners entitled to notice of or to vote at any meeting or to give approvals without a meeting, NuStar Energy's general partner may set a record date, which date for purposes of notice of a meeting shall not be less than 10 days nor more than 60 days before the date of the meeting.

Each record holder of limited partner interests has a vote according to his percentage interest in NuStar Energy. Limited partner interests held for a person's account by another person (such as a broker, dealer or bank), in whose name such limited partner interests are registered, will be voted by such other person in favor of, and at the direction of, the beneficial owner unless the arrangement between such persons provides otherwise. Representation in person or by proxy of a majority of the outstanding limited partner interests of the class or classes for which a meeting has been called will constitute a quorum at such meeting (unless a particular action by the limited partners requires approval by a greater percentage of limited partner interests, in which case the quorum shall be such greater percentage).

At any meeting at which a quorum is present, the act of the limited partners holding a majority of the outstanding limited partner interests entitled to vote at the meeting will be deemed to be the act of all the limited partners, unless a greater or different percentage is required under the partnership agreement, in which case the act of the limited partners holding such greater or different percentage of the outstanding limited partner interests will be required. At a meeting for the election of directors, directors are elected by a plurality of votes cast by the limited partners holding outstanding Common Units and Series D Preferred Units (voting on an as-converted basis), voting together as a single class.

If authorized by NuStar Energy's general partner, any action that is required or permitted to be taken at a meeting of the limited partners may be taken either at a meeting of the limited partners or without a meeting if consents in writing describing the action so taken are signed by the holders of the number of limited partner interests necessary to authorize or take that action at a meeting.

The Board of Directors

The number of directors on the board will be nine unless otherwise determined from time to time by a majority of the directors then in office or automatically increased pursuant to the terms of the Series D Preferred Units. Any decrease in the number of directors by the board may not have the effect of shortening the term of any incumbent director.

The directors are grouped into three groups with respect to their terms. At each annual meeting of limited partners, successors to the directors whose terms expire at that annual meeting will be elected for a three-year term.

A director may only be removed for cause at a meeting of limited partners upon the affirmative vote of the limited partners holding a unit majority and only if, at the same meeting, the limited partners holding a unit majority nominate a replacement director and elect the replacement director to the board. Vacancies on the board (other than vacancies caused by the removal of a director by the limited partners) may be filled by a majority of the remaining directors then in office

Nominations of persons for election as directors to the board may be made at an annual meeting of the limited partners only pursuant to NuStar Energy's general partner's notice of meeting (1) by or at the direction of a majority of the directors of the board or (2) by a limited partner, or a group of limited partners, that holds or beneficially owns, and has continuously held or beneficially owned without interruption for the prior two years, 5% of the outstanding Common Units and outstanding Series D Preferred Units (on an as-converted basis), considered together for this purpose as a single class, and such limited partner, or each limited partner in such group, (A) was a limited partner at the time the notice provided for in the partnership agreement is delivered to NuStar Energy's general partner and (B) complies with the notice procedures set forth in the partnership agreement.

For any nominations brought before an annual meeting by a limited partner, the limited partner must give timely notice thereof in writing to NuStar Energy's general partner. The notice must contain certain information as described in the partnership agreement. To be timely, a limited partner's notice must be delivered to NuStar Energy's general partner not later than the close of business on the 90th day, nor earlier than the close of business on the 120th day, prior to the first anniversary of the

preceding year's annual meeting. The public announcement of an adjournment or postponement of an annual meeting will not commence a new time period (or extend any time period) for the giving of a limited partner's notice as described above.

In the event that the number of directors is increased effective after the time period for which nominations would otherwise be due and there is no public announcement by NuStar Energy or its general partner naming the nominees for the additional directorships at least 100 days prior to the first anniversary of the preceding year's annual meeting, a limited partner's notice will also be considered timely with respect to nominees for the additional directorships, if it is delivered to NuStar Energy's general partner not later than the close of business on the 10th day following the day on which such public announcement is first made by NuStar Energy or its general partner.

Nominations for directors may be made at a special meeting of limited partners at which directors are to be elected in accordance with the provisions of the partnership agreement.

Only persons who are nominated in accordance with the procedures set forth in the partnership agreement will be eligible to be elected at an annual or special meeting of limited partners to serve as directors. Unless otherwise required by law or the partnership agreement, if each nominating limited partner does not appear at the annual or special meeting of limited partners to present a nomination, the nomination will be disregarded.

In addition to the provisions described above and in the partnership agreement, a limited partner must also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder. Any references in the partnership agreement to the Exchange Act or the rules promulgated thereunder are not intended to, and do not, limit any requirements applicable to nominations pursuant to the partnership agreement, and compliance with the partnership agreement is the exclusive means for a limited partner to make nominations.

Limited Call Right

If at any time NuStar Energy's general partner and its affiliates own 80% or more of the issued and outstanding limited partner interests of any class, NuStar Energy's general partner will have the right (which right it may assign and transfer to NuStar Energy or any affiliate of its general partner) to purchase all, but not less than all, of the outstanding limited partner interests of that class that are held by non-affiliated persons. The record date for determining ownership of the limited partner interests to be purchased by NuStar Energy's general partner will be selected by NuStar Energy's general partner, and NuStar Energy's general partner must mail notice of its election to purchase the interests to the holders of such interests at least 10 but not more than 60 days prior to the purchase date. The purchase price in the event of a purchase under these provisions would be the greater of (1) the current market price (as defined in the partnership agreement) of the limited partner interests of the class as of the date three days prior to the date NuStar Energy's general partner mails notice of its election to purchase the limited partner interests and (2) the highest cash price paid by NuStar Energy's general partner or any of its affiliates for any limited partner interest of the class purchased within the 90 days preceding the date NuStar Energy's general partner mails notice of its election to purchase the limited partner interests.

Transfer of Limited Partner Interests and Status as a Limited Partner or Assignee

No transfer of NuStar Energy limited partner interests represented by certificates will be recognized by NuStar Energy unless certificates representing those limited partner interests are surrendered and such certificates are accompanied by a duly executed transfer application. Each transferee of limited partner interests must execute a transfer application whereby the transferee, among other things, requests admission as a substituted limited partner, makes certain representations, executes and agrees to comply with and be bound by the partnership agreement, and gives the consents and approvals and makes the waivers contained in the partnership agreement. Transferees may hold limited partner interests in nominee accounts.

Once a transferee has executed and delivered a transfer application in accordance with the partnership agreement, the transferee becomes an assignee. An assignee becomes a limited partner upon the consent of NuStar Energy's general partner and the recordation of the name of the assignee on NuStar Energy's books and records. Such consent may be withheld in the sole discretion of NuStar Energy's general partner. An assignee, pending its admission as a substituted limited partner, is entitled to an interest in NuStar Energy equivalent to that of a limited partner with respect to the right to share in allocations and distributions, including liquidating distributions of NuStar Energy. NuStar Energy's general partner will vote and exercise, at the written direction of the assignee, other powers attributable to limited partner interests owned by an assignee who has not become a substituted limited partner.

Transferees who do not execute and deliver transfer applications will be treated neither as assignees nor as record holders of limited partner interests and will not receive distributions, federal income tax allocations or reports furnished to record holders of limited partner interests. The only right such transferees will have is the right to admission as a substituted limited partner

upon execution of a transfer application, subject to the approval of NuStar Energy's general partner. A nominee or broker who has executed a transfer application with respect to limited partner interests held in street name or nominee accounts will receive distributions and reports pertaining to such limited partner interests.

Non-Citizen Assignees; Redemption

If NuStar Energy, the Operating Partnership or any of their respective subsidiaries is or becomes subject to federal, state or local laws or regulations that, in the reasonable determination of NuStar Energy's general partner, create a substantial risk of cancellation or forfeiture of any property that NuStar Energy, the Operating Partnership or any of their respective subsidiaries has an interest in because of the nationality, citizenship or other related status of any limited partner or assignee, NuStar Energy may redeem the limited partner interests held by the limited partner or assignee at their current market price. In order to avoid any cancellation or forfeiture, NuStar Energy's general partner may require each limited partner or assignee to furnish information about his nationality, citizenship or related status. If a limited partner or assignee fails to furnish information about this nationality, citizenship or other related status within 30 days after a request for the information or NuStar Energy's general partner determines after receipt of the information that the limited partner or assignee is not an eligible citizen, the limited partner or assignee may be treated as a non-citizen assignee. In addition to other limitations on the rights of an assignee who is not a substituted limited partner, a non-citizen assignee does not have the right to direct the voting of his limited partner interests and may not receive distributions in kind upon NuStar Energy's liquidation.

Indemnification

Under the partnership agreement, in most circumstances, NuStar Energy will indemnify the following persons, to the fullest extent permitted by law, from and against all losses, claims, damages or similar events as long as such persons acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of NuStar Energy, and, with respect to any criminal proceeding, had no reasonable cause to believe their conduct was unlawful:

- · NuStar Energy's general partner;
- · any departing general partner;
- any person who is or was an affiliate of NuStar Energy's general partner or any departing general partner;
- any person who is or was a member, partner, officer, director, employee, agent or trustee of NuStar Energy, the Operating Partnership or any of their respective subsidiaries, NuStar Energy's general partner or any departing general partner or any affiliate of NuStar Energy, the Operating Partnership, their respective subsidiaries, NuStar Energy's general partner or any departing general partner; or
- any person who is or was serving at the request of NuStar Energy's general partner or departing general partner or any affiliate of NuStar Energy's general partner or departing general partner as an officer, director, employee, member, partner, agent, fiduciary or trustee of another person.

Any indemnification under these provisions will only be out of NuStar Energy's assets. NuStar Energy's general partner will not be personally liable for any of NuStar Energy's indemnification obligations, or have any obligation to contribute or loan funds or assets to NuStar Energy to enable it to effectuate indemnification. NuStar Energy is authorized to purchase insurance against liabilities asserted against and expenses incurred by persons for its activities, regardless of whether NuStar Energy would have the power to indemnify the person against liabilities under the partnership agreement.

Books and Reports

NuStar Energy's general partner is required to keep appropriate books of NuStar Energy's business at NuStar Energy's principal offices. The books will be maintained for both tax and financial reporting purposes on an accrual basis. For tax and financial reporting purposes, NuStar Energy's fiscal year is the calendar year.

NuStar Energy will furnish or make available to record holders of partnership securities, within 120 days after the close of each fiscal year, an annual report containing audited financial statements and a report on those financial statements by its registered public accounting firm. Except for its fourth quarter, NuStar Energy will also furnish or make available summary financial information within 90 days after the close of each quarter.

NuStar Energy will furnish each record holder of a partnership security with information reasonably required for tax reporting purposes within 90 days after the close of each calendar year.

Right to Inspect NuStar Energy's Books and Records

The partnership agreement provides that a limited partner can, for a purpose reasonably related to such limited partner's interest as a limited partner, upon reasonable demand and at its own expense, have furnished to it:

- information regarding the status of the business and financial condition of NuStar Energy;
- a copy of NuStar Energy's tax returns;
- a current list of the name and last known address of each partner;
- copies of the partnership agreement, the certificate of limited partnership of NuStar Energy, related amendments and powers of attorney under which they have been executed;
- information as to the amount of cash, and a description and statement of the agreed value of any other property or services, contributed or to be contributed by each partner and the date on which each became a partner;
- any other information regarding NuStar Energy's affairs as is just and reasonable.

NuStar Energy's general partner may, and intends to, keep confidential from the limited partners trade secrets or other information the disclosure of which it believes in good faith is not in NuStar Energy's, the Operating Partnership's and their respective subsidiaries' best interests, could damage NuStar Energy, the Operating Partnership and their respective subsidiaries or which NuStar Energy, the Operating Partnership or their respective subsidiaries are required by law or by agreements with third parties to keep confidential.

Registration Rights

Under the partnership agreement, NuStar Energy has agreed to register for resale under the Securities Act of 1933, as amended, and applicable state securities laws any Common Units or other partnership securities proposed to be sold by the general partner or any of its affiliates or their assignees if an exemption from the registration requirements is not otherwise available. These registration rights continue for two years following any withdrawal or removal of Riverwalk Logistics, L.P. as the general partner of NuStar Energy. NuStar Energy is obligated to pay all expenses incidental to the registration, excluding underwriting discounts and commissions.

Conflicts of Interest

Riverwalk Logistics, L.P., the general partner of NuStar Energy, has a legal duty to manage NuStar Energy in a manner beneficial to NuStar Energy's unitholders. This legal duty originates in statutes and judicial decisions and is commonly referred to as a "fiduciary" duty.

NuStar Energy's partnership agreement contains provisions that allow its general partner to take into account the interests of parties in addition to NuStar Energy in resolving conflicts of interest. In effect, these provisions limit NuStar Energy's general partner's fiduciary duties to the unitholders. The partnership agreement also restricts the remedies available to unitholders for actions taken that might, without those limitations, constitute breaches of fiduciary duty. Whenever a conflict arises between NuStar Energy's general partner or its affiliates, on the one hand, and NuStar Energy or any other partner, on the other hand, NuStar Energy's general partner will resolve that conflict.

NuStar Energy's general partner will not be in breach of its obligations under the partnership agreement or its duties to NuStar Energy or the unitholders if the resolution of the conflict is considered to be fair and reasonable to NuStar Energy. Any resolution is considered to be fair and reasonable to NuStar Energy if that resolution is:

- approved by a conflicts committee consisting of three or more independent directors of NuStar GP, LLC, although no party is obligated to seek approval and NuStar Energy's general partner may adopt a resolution or course of action that has not received approval;
- on terms no less favorable to NuStar Energy than those generally being provided to or available from unrelated third parties; or
- fair to NuStar Energy, taking into account the totality of the relationships between the parties involved, including other transactions that may be
 particularly favorable or advantageous to NuStar Energy.

In resolving a conflict, NuStar Energy's general partner may, unless the resolution is specifically provided for in the partnership agreement, consider:

- the relative interests of the parties involved in the conflict or affected by the action;
- any customary or accepted industry practices or historical dealings with a particular person or entity; and
- generally accepted accounting principles and other factors it considers relevant, if applicable.

Fiduciary Duties

Fiduciary duties are generally considered to include an obligation to act with due care and loyalty. The duty of care, in the absence of a provision in a partnership agreement providing otherwise, generally requires a general partner to act for the partnership in the same manner as a prudent person would act on his own behalf. The duty of loyalty, in the absence of a provision in a partnership agreement providing otherwise, generally prohibits a general partner from taking any action or engaging in any transaction where a conflict of interest is present. The Delaware law generally provides that a limited partner may institute legal action on a partnership's behalf to recover damages from a third party where a general partner has refused to institute the action or where an effort to cause a general partner to do so is not likely to succeed. In addition, the statutory or case law of some jurisdictions may permit a limited partner to institute legal action on behalf of himself and all other similarly situated limited partners to recover damages from a general partner for violations of its fiduciary duties to the limited partners.

The Delaware law provides that Delaware limited partnerships may, in their partnership agreements, restrict or expand the fiduciary duties owed by a general partner to limited partners and the partnership.

Fiduciary standards may be modified by NuStar Energy's partnership agreement. NuStar Energy's partnership agreement contains various provisions restricting the fiduciary duties that might otherwise be owed by NuStar Energy's general partner. The following is a summary of the material restrictions of the fiduciary duties owed by NuStar Energy's general partner to the limited partners:

The partnership agreement contains provisions that waive or consent to conduct by NuStar Energy's general partner and its affiliates that might otherwise raise issues as to compliance with fiduciary duties or applicable law. For example, the partnership agreement permits NuStar Energy's general partner to make a number of decisions in its "sole discretion," such as:

- the incurrence of indebtedness;
- the acquisition or disposition of assets, except for the disposition of all of the assets of NuStar Energy, which requires unitholder approval;
- · the negotiation of any contracts; and
- the disposition of NuStar Energy's cash.

Sole discretion entitles NuStar Energy's general partner to consider only the interests and factors that it desires and it does not have a duty or obligation to give any consideration to any interest of, or factors affecting, NuStar Energy, its affiliates or any limited partner, including the public unitholders. Other provisions of NuStar Energy's partnership agreement provide that NuStar Energy's general partner's actions must be carried out in its reasonable discretion.

The partnership agreement generally provides that affiliated transactions and resolutions of conflicts of interest not involving a required vote of unitholders must be "fair and reasonable" to NuStar Energy under the factors previously set forth. In determining whether a transaction or resolution is "fair and reasonable" NuStar Energy's general partner may consider interests of all parties involved, including its own. Unless NuStar Energy's general partner has acted in bad faith, the action taken by NuStar Energy's general partner will not constitute a breach of its fiduciary duty.

In addition to the other more specific provisions limiting the obligations of NuStar Energy's general partner, the partnership agreement further provides that NuStar Energy's general partner and the officers and directors of NuStar GP, LLC will not be liable for monetary damages to NuStar Energy, the limited partners or assignees for errors of judgment or for any acts or omissions if NuStar Energy's general partner and those other persons acted in good faith.

NuStar Energy is required to indemnify its general partner and NuStar GP, LLC and their officers, directors, employees, affiliates, partners, members, agents and trustees, to the fullest extent permitted by law, against liabilities, costs and expenses incurred by NuStar Energy's general partner and NuStar GP, LLC or these other persons. This indemnification is required if NuStar Energy's general partner or these persons acted in good faith and in a manner they reasonably believed to be in, or (in the case of a person other than NuStar Energy's general partner) not opposed to, the best interests of NuStar Energy. Indemnification is required for criminal proceedings if NuStar Energy's general partner and NuStar GP, LLC or these other persons had no reasonable cause to believe their conduct was unlawful. Thus, NuStar Energy's general partner and NuStar GP, LLC could be indemnified for their negligent acts if they met these requirements concerning good faith and the best interests of NuStar Energy.

DISTRIBUTION STOPPER PURSUANT TO SUBORDINATED NOTES

On January 22, 2013, NuStar Logistics, L.P., a subsidiary of NuStar Energy ("NuStar Logistics"), issued \$402.5 million of fixed-to-floating rate subordinated notes due January 15, 2043 (the "Subordinated Notes"). Effective January 15, 2018, the interest rate on the Subordinated Notes switched from a fixed annual rate of 7.625%, payable quarterly in arrears, to an annual rate equal to the sum of the three-month LIBOR for the related quarterly interest period, plus 6.734% payable quarterly, commencing with the interest payment due April 15, 2018. As of December 31, 2019, the interest rate was 8.7%. The Subordinated Notes are fully and unconditionally guaranteed on an unsecured and subordinated basis by NuStar Energy and its subsidiary, NuStar Pipeline Operating Partnership L.P.

In accordance with the terms of the notes, NuStar Logistics may elect to defer interest payments on the Subordinated Notes on one or more occasions for up to five consecutive years. Deferred interest will accumulate at a rate equal to the interest rate then applicable to the Subordinated Notes until paid. If NuStar Logistics elects to defer interest payments, NuStar Energy cannot declare or make cash distributions with respect to, or redeem, purchase or make a liquidation payment with respect to, its equity securities during the period interest is deferred.

Subsidiaries of NuStar Energy L.P.

Name of Entity	Jurisdiction of Organization
Cooperatie NuStar Holdings U.A.	Netherlands
LegacyStar Services, LLC	Delaware
NS Security Services, LLC	Delaware
NuStar Caribe Terminals, Inc.	Delaware
NuStar Energy Services, Inc.	Delaware
NuStar Finance LLC	Delaware
NuStar GP, Inc.	Delaware
NuStar GP, LLC	Delaware
NuStar GP Holdings, LLC	Delaware
NuStar Holdings B.V.	Netherlands
NuStar Internacional, S de R.L. de C.V.	Mexico
NuStar Logistics, L.P.	Delaware
NuStar Permian Crude Logistics, LLC	Delaware
NuStar Permian Holdings, LLC	Delaware
NuStar Permian Transportation and Storage, LLC	Delaware
NuStar Pipeline Company, LLC	Delaware
NuStar Pipeline Holding Company, LLC	Delaware
NuStar Pipeline Operating Partnership L.P.	Delaware
NuStar Pipeline Partners L.P.	Delaware
NuStar Services Company LLC	Delaware
NuStar Supply & Trading LLC	Delaware
NuStar Terminals Canada Co.	Canada
NuStar Terminals Canada Holdings Co.	Canada
NuStar Terminals Canada Partnership	Canada
NuStar Terminals Corporation N.V.	Curacao
NuStar Terminals Delaware, Inc.	Delaware
NuStar Terminals International N.V.	Curacao
NuStar Terminals New Jersey, Inc.	Delaware
NuStar Terminals Operations Partnership L.P.	Delaware
NuStar Terminals Partners TX L.P.	Delaware
NuStar Terminals Services, Inc.	Delaware
NuStar Terminals Texas, Inc.	Delaware
NuStar Texas Holdings, Inc.	Delaware
Point Tupper Marine Services Co.	Canada
Riverwalk Logistics, L.P.	Delaware
Shore Terminals LLC	Delaware
ST Linden Terminal, LLC	Delaware
Star Creek Ranch, LLC	Delaware

Consent of Independent Registered Public Accounting Firm

The Board of Directors NuStar GP. LLC:

We consent to the incorporation by reference in the registration statements (No. 333-209717, 333-226279 and 333-231004) on Form S-8 and (No. 333-232502 and 333-230823) on Form S-3 of NuStar Energy L.P. of our reports dated February 27, 2020, with respect to the consolidated balance sheets of NuStar Energy L.P. as of December 31, 2019 and 2018, and the related consolidated statements of (loss) income, comprehensive (loss) income, partners' equity and mezzanine equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes, and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of NuStar Energy L.P.

/s/ KPMG LLP

San Antonio, Texas February 27, 2020

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

- I, Bradley C. Barron, certify that:
- 1. I have reviewed this annual report on Form 10-K of NuStar Energy L.P. (the "registrant");
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2020

/s/ Bradley C. Barron

Bradley C. Barron

President and Chief Executive Officer

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

- I, Thomas R. Shoaf, certify that:
- 1. I have reviewed this annual report on Form 10-K of NuStar Energy L.P. (the "registrant");
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 27, 2020
/s/ Thomas R. Shoaf
Thomas R. Shoaf
Executive Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of NuStar Energy L.P. (the Partnership) on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Bradley C. Barron, President and Chief Executive Officer of NuStar GP, LLC, the general partner of the general partner of the Partnership, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Bradley C. Barron

Bradley C. Barron President and Chief Executive Officer February 27, 2020

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of NuStar Energy L.P. (the Partnership) on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Thomas R. Shoaf, Executive Vice President and Chief Financial Officer of NuStar GP, LLC, the general partner of the general partner of the Partnership, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Thomas R. Shoaf

Thomas R. Shoaf Executive Vice President and Chief Financial Officer February 27, 2020