UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED JANUARY 31, 2020

_COMMISSION FILE NO. 001-09097

REX AMERICAN RESOURCES CORPORATION (Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

7720 Paragon Road, Dayton, Ohio
(Address of principal executive offices)

Registrant's telephone number, including area code (937) 276-3931

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

occurred pursuant to occurr 12(b) of the 11

<u>Title of each class</u> <u>Trading Symbol(s)</u>

Name of each exchange on which registered New York Stock Exchange

Common Stock, \$.01 par value REX

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes_ No <u>ü</u>

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes_ No <u>u</u>

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes <u>ü</u> No ___

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

Large accelerated filer __ Accelerated filer <u>"u"</u> Non-accelerated filer ____ Smaller reporting company____ Emerging growth company ___

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) Yes_ No \ddot{u}

At the close of business on July 31, 2019 the aggregate market value of the registrant's outstanding Common Stock held by non-affiliates of the registrant (for purposes of this calculation, 715,692 shares beneficially owned by directors and executive officers of the registrant were treated as being held by affiliates of the registrant), was \$416,091,198.

There were 6,293,322 shares of the registrant's Common Stock outstanding as of March 31, 2020.

Documents Incorporated by Reference

Portions of REX American Resources Corporation's definitive Proxy Statement for its Annual Meeting of Shareholders on June 16, 2020 are incorporated by reference into Part III of this Form 10-K.

FORWARD-LOOKING STATEMENTS

This Form 10-K contains or may contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Such statements can be identified by use of forward-looking terminology such as "may," "expect," "believe," "estimate," "anticipate" or "continue" or the negative thereof or other variations thereon or comparable terminology. Readers are cautioned that there are risks and uncertainties that could cause actual events or results to differ materially from those referred to in such forward-looking statements. These risks and uncertainties include the risk factors set forth from time to time in the Company's filings with the Securities and Exchange Commission and include among other things: the effect of pandemics such as COVID-19 on the Company's business operations, including impacts on supplies, demand, personnel and other factors, the impact of legislative and regulatory changes, the price volatility and availability of corn, distillers grains, ethanol, non-food grade corn oil, gasoline, natural gas, logistical delays, our ethanol and refined coal plants operating efficiently and according to forecasts and projections, changes in the international, national or regional economies, weather, results of income tax audits, changes in income tax laws or regulations, the impact of U.S. foreign trade policy, changes in foreign currency exchange rates and the effects of terrorism or acts of war. The Company does not intend to update publicly any forward-looking statements except as required by law. Other factors that could cause actual results to differ materially from those in the forward-looking statements are set forth in Item 1A.

AVAILABLE INFORMATION

REX makes available free of charge on its Internet website its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. REX's Internet website address is www.rexamerican.com. The contents of the Company's website are not a part of this report.

PART I

Item 1. Business

References to "we", "us", "our", "REX" or "the Company" refer to REX American Resources Corporation and its majority owned subsidiaries.

Fiscal Year

All references in this report to a particular fiscal year are to REX's fiscal year ended January 31. For example, "fiscal year 2019" means the period February 1, 2019 to January 31, 2020. We refer to our fiscal year by reference to the year immediately preceding the January 31 fiscal year end date.

Overview

REX was incorporated in Delaware in 1984 as a holding company. Our principal offices are located at 7720 Paragon Road, Dayton, Ohio 45459. Our telephone number is (937) 276-3931. We have been an investor in ethanol production facilities beginning in 2006. We are currently invested in three ethanol production entities; we have a majority ownership interest in two of these entities – One Earth Energy, LLC ("One Earth") and NuGen Energy, LLC ("NuGen"). We also own a majority interest in an entity that owns and operates a refined coal facility. We may make additional investments in the energy or other industries in the future. In the third quarter of fiscal year 2017, we began reporting the results of our refined coal operation as a new segment as a result of the August 10, 2017 acquisition of an entity that operates a refined coal facility (see Note 3 to the Consolidated Financial Statements). Prior to the acquisition, we had one reportable segment, ethanol. Beginning with the third quarter of fiscal year 2017, we have two reportable segments: i) ethanol and by-products and ii) refined coal.

Our ethanol operations are highly dependent on commodity prices, especially prices for corn, ethanol, distillers grains, non-food grade corn oil and natural gas. As a result of price volatility for these commodities, our operating results can fluctuate substantially. The price and availability of corn is subject to significant fluctuations depending upon several factors that affect commodity prices in general, including crop conditions, weather, federal policy and foreign trade. Because the market prices of ethanol and distillers grains are not always directly related to corn prices, at times ethanol and/or distillers grains prices may lag movements in corn prices. In an environment of higher corn prices or lower ethanol/distillers grains prices, the overall margin structure at the plants could be reduced. As a result, at times, we may operate our plants at negative or minimally positive operating margins.

We expect our ethanol plants to produce approximately 2.8 gallons of denatured ethanol for each bushel of grain processed in the production cycle. We refer to the actual gallons of denatured ethanol produced per bushel of grain processed as the realized yield. We refer to the difference between the price per gallon of ethanol and the price per bushel of grain (divided by the realized yield) as the "crush spread." Should the crush spread decline, it is possible that our ethanol plants will generate operating results that do not provide adequate cash flows for sustained periods of time. In such cases, production at the ethanol plants may be reduced or stopped altogether in order to minimize variable costs at individual plants.

We attempt to manage the risk related to the volatility of commodity prices by utilizing forward grain purchase, forward ethanol, distillers grains and non-food grade corn oil sale contracts, and commodity futures agreements, as management deems appropriate. We attempt to match quantities of these sales contracts with an appropriate quantity of grain purchase contracts over a given period of time when we can obtain an adequate gross margin resulting from the crush spread inherent in the contracts we have executed. However, the market for future ethanol sales contracts generally lags the spot market with respect to ethanol price. Consequently, we generally execute fixed price contracts for no more than four months into the future at any given time and we may lock in our corn or ethanol price without having a corresponding locked in ethanol or corn price for short durations of time. As a result of the relatively short period of time our fixed price contracts cover, we generally cannot predict the future movements in our realized crush spread for more than four months; thus, we are unable to predict the likelihood or amounts of future income or loss from the operations of our ethanol facilities. We utilize derivative financial instruments, primarily exchange traded commodity future contracts, in conjunction with certain of our grain procurement activities and commodity marketing activities.

Commodity prices in fiscal year 2019 were subject to significant volatility. For fiscal year 2019, the average Chicago Board of Trade ("CBOT") near-month corn price ranged from a low of approximately \$3.47 per bushel in April 2019 to a high of approximately \$4.55 per bushel in June 2019. Corn prices were impacted by wet spring weather conditions, which led to lower acres planted in certain regions, including near the NuGen facility. This resulted in higher local basis amounts for corn than we have historically experienced. Corn basis is the difference between the local cash price and the futures price of the corn contract with the closest delivery month. Ethanol prices had significant fluctuations ranging from a low of approximately \$1.26 per gallon in August 2019 to a high of approximately \$1.61 per gallon in June 2019. Ethanol prices were influenced by many factors throughout the year including domestic demand, exports and U.S. ethanol supply. Ethanol prices in 2019 and 2018 were negatively impacted, in part, by increased small refiner waivers ("SRWs") granted by the Environmental Protection Agency ("EPA") and the resulting reductions to the Renewable Fuel Standard ("RFS") obligations and ethanol demand.

On August 10, 2017, we purchased, through a 95.35% owned subsidiary, for approximately \$12.0 million, the entire ownership interest of an entity that owns a refined coal facility. We began operating the refined coal facility immediately after the acquisition. We expect that the refined coal operating results will be subsidized by federal production tax credits through November 2021, subject to meeting qualified emissions reductions as governed by Section 45 of the Internal Revenue Code ("IRC"). In order to maintain compliance with Section 45 of the Internal Revenue Code, we are required to test every six months, through an independent laboratory,

the effectiveness of our process with respect to emissions reductions. Annually, the IRS publishes the amount of federal income tax credit earned per ton of refined coal produced and sold for a given calendar year, which for 2019 is \$7.173 per ton.

Net income attributable to REX common shareholders was approximately \$7.4 million in fiscal year 2019 compared to approximately \$31.6 million in fiscal year 2018. Both fiscal years 2019 and 2018 benefitted from reductions in our effective tax rate resulting from the impact of federal production tax credits associated with our refined coal operations and from the impact of research and experimentation credits associated with our ethanol and by-products operations. Gross profit in fiscal year 2019 was significantly lower compared to fiscal year 2018, primarily a result of lower ethanol crush spreads. During fiscal year 2019, operating results in our ethanol and by-products segment were adversely affected by a weak margin environment highlighted by higher costs for corn, lower availability of local corn, higher local basis prices for corn and resulting reductions in plant production volumes at our NuGen facility. Due to the inherent volatility of commodity prices within the ethanol industry, the uncertainty regarding future refined coal production and associated financial results, we cannot predict the likelihood of future operating results being similar to the results of historical periods. Due to the economic impact of the spread of a new strain of the coronavirus ("COVID-19"), and recent crush spreads, we have idled our NuGen and One Earth ethanol plants. The impacts of COVID-19 on our business operations, including the duration and impact on ethanol demand cannot be reasonably estimated at this time, although a prolonged production stoppage at our plants would have a material adverse impact on our results of operations, financial condition and cash flows in fiscal year 2020.

During fiscal year 2013, we entered into a joint venture with Hytken HPGP LLC ("Hytken") to file and defend patents for eSteam technology relating to heavy oil and oil sands production methods, and to attempt to commercially exploit the technology to generate license fees, royalty income and development opportunities. The patented technology is an enhanced method of heavy oil recovery involving zero emissions downhole steam generation. To date, we have paid and expensed approximately \$2.4 million to purchase our ownership interest and fund patent and other expenses. We have not successfully demonstrated that the technology is commercially feasible. We own 60% and Hytken owns 40% of the entity named Future Energy, LLC ("Future Energy"), an Ohio limited liability company. Future Energy is managed by a board of three managers, two appointed by us and one by Hytken.

We plan to seek and evaluate various investment opportunities including energy related, carbon dioxide related, agricultural or other ventures we believe fit our investment criteria. We can make no assurances that we will be successful in our efforts to find such opportunities.

Ethanol and By-products Overview

We began investing in the ethanol industry during fiscal year 2006. The form and structure of our investments is tailored to the specific needs and goals of each project and the local farmer group or investor with whom we are partnering. We generally participate in the management of our projects through our membership on the board of managers of the limited liability companies that own the plants.

We have equity investments in three entities engaged in the production of ethanol as of January 31, 2020. The following table is a summary of our ethanol investments at January 31, 2020 (gallons in millions):

			Current Effective
	Trailing 12 Months	REX's Current	Ownership of Trailing 12
	Ethanol Gallons	Ownership	Months Ethanol Gallons
Entity	Shipped	Interest	Shipped
One Earth Energy, LLC	140.5	75.2%	105.7
NuGen Energy, LLC	94.8	99.5%	94.3
Big River Resources, LLC:			
Big River Resources W Burlington, LLC	111.6	10.3%	11.5
Big River Resources Galva, LLC	121.2	10.3%	12.5
Big River United Energy, LLC	131.8	5.7%	7.5
Big River Resources Boyceville, LLC	60.1	10.3%	6.2
Total	660.0		237.7

Ethanol Industry

Ethanol is a renewable fuel source produced by processing corn and other biomass through a fermentation process that creates combustible alcohol that can be used as a fuel additive to reduce vehicle emissions from gasoline, as an octane enhancer to improve the octane rating of gasoline with which it is blended and, to a lesser extent, as a gasoline substitute. The majority of ethanol produced in the United States is made from corn because of its wide availability and ease of convertibility from large amounts of carbohydrates into glucose, the key ingredient in producing alcohol that is used in the fermentation process. Ethanol production can also use feedstocks such as grain sorghum, switchgrass, wheat, barley, potatoes and sugarcane as carbohydrate sources. Most ethanol plants have been located near large corn production areas, such as Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio and South Dakota. Railway access and interstate access are vital for ethanol facilities due to the large amount of raw materials and finished goods required to be shipped to and from the ethanol plant facilities.

According to the Renewable Fuels Association ("RFA"), the United States ethanol industry produced an estimated 15.8 billion gallons of ethanol in 2019. Approximately 1.5 billion gallons were exported in 2019. According to the RFA, the United States ethanol industry consists of 205 plants (190 operating) in 26 states with an annual capacity of approximately 16.9 billion gallons (approximately 16.0 billion gallons at operating plants) of ethanol production. The RFA estimates approximately 183 million gallons per year of additional production capacity is under construction or expansion.

On December 19, 2007, the Energy Independence and Security Act of 2007 (the "Energy Act of 2007") was enacted. The Energy Act of 2007 established new levels of renewable fuel mandates, including two different categories of renewable fuels: conventional biofuels and advanced biofuels. Corn-based ethanol is considered a conventional biofuel which is subject to a renewable fuel standard ("RFS") of 15.0 billion gallons annually through 2022. After 2022, RFS volumes will be determined by the Environmental Protection Agency ("EPA") in coordination with the Secretaries of Energy and Agriculture.

The federal government mandates the use of renewable fuels under Renewable Fuel Standard II ("RFS II"), established in October 2010. The EPA has the authority to waive the mandates in whole or in part if one of two conditions is met: 1) there is inadequate domestic renewable fuel supply, or 2) implementation of the mandate requirement severely harms the economy or environment of a state, region or the United States. In 2014, 2015 and 2016, the EPA took action to reduce the volumes for both conventional biofuels and advanced biofuels.

The U.S. Federal District Court for the D.C. Circuit ruled on July 28, 2017, in favor of the Americans for Clean Energy and its petitioners against the EPA related to its decision to lower the 2016 volume requirements. The Court concluded the EPA erred in how it interpreted the "inadequate domestic supply" waiver provision of RFS II, which authorizes the EPA to consider supply-side factors affecting the volume of renewable fuel available to refiners, blenders, and importers to meet the statutory volume requirements. The waiver provision does not allow the EPA to consider the volume of renewable fuel available to consumers or the demand-side constraints that affect the consumption of renewable fuel by consumers. As a result, the Court vacated the EPA's decision to reduce the total renewable fuel volume requirements by 500 million gallons for 2016 through its waiver authority. To date, the EPA has not reinstated these gallons.

Pursuant to RFS II, if mandatory renewable fuel volumes are reduced by at least 20% for two consecutive years, the EPA is required to modify, or reset, statutory volumes through 2022. While conventional ethanol was maintained at 15.0 billion gallons, 2019 was the second consecutive year the total proposed renewable volume obligations ("RVOs") was more than 20% below statutory volumes levels. The EPA Administrator directed his staff to initiate the reset rulemaking process. However, the EPA announced it will not move forward with reset rulemaking in 2020.

Obligated parties use renewable identification numbers ("RINs") to show compliance with RFS-mandated volumes. RINs are attached to renewable fuels by producers and detached when the renewable fuel is blended with transportation fuel or traded in the open market. The market price of detached RINs affects the price of ethanol in certain markets and influences the purchasing decisions by obligated parties. Certain obligated parties petitioned the EPA to move the point of obligation from refiners and importers of fuel to fuel blenders. In November 2017, the EPA denied this petition to change the point of obligation under RFS II to the parties that own the gasoline before it is sold.

On January 26, 2018, in separate court actions, both Valero Energy and American Fuel and Petrochemical and Manufacturers ("AFPM") challenged the EPA regarding the EPA's management of the U.S. biofuel mandate. Amongst their challenges are the EPA's November 2017 decision to reject proposed changes to the structure of the RFS, including the point of obligation. The plaintiffs also are seeking a review of the annual Renewable Volume Obligations rule set by the EPA for 2018. In addition, an action brought by Valero sought review of the EPA's December 2017 assertion that the agency has fulfilled its duty to periodically review the RFS as directed by statute. The D.C. Circuit Court denied all of the petitions on various grounds issued in 2019. In December 2019, Valero and the AFPM filed a petition seeking U.S. Supreme Court review of the D.C. Circuit decisions on the first two actions.

At the same time the EPA took action (in 2019) to allow the Reid Vapor Pressure ("RVP") waiver to E-15 for the summer months, it also took RIN market reform action. The reform action requires public disclosure when RIN holdings exceed specified thresholds by an entity and also requires the reporting of additional price and affiliate data to the EPA.

Under RFS II, a small refiner that processes less than 75,000 barrels per day can petition the EPA for a waiver of their requirement to submit RINs. The EPA, through consultation with the Department of Energy and the Department of Agriculture, can grant the refiner a full or partial waiver, or deny the waiver. The EPA issued 85 refinery exemptions for 2016-2018 compliance years, undercutting the statutory renewable fuel volumes by a total of 4.0 billion gallons. In its final rule establishing the 2020 renewable fuel volume obligations, the EPA stated it will reallocate gallons lost to exemptions, based on a rolling three year average of what the Department of Energy has recommended, and extend this to the 2019 compliance year. On average, these recommendations have represented only about half of the waivers the EPA has granted. The U.S. Court of

Appeals for the 10th Circuit recently vacated decisions by the EPA to extend exemptions to renewable fuel obligations to three small refineries. The Court ruled the extensions should not have been granted because the three refineries were not already in possession of exemptions. In addition, the Court ruled the economic hardship should be determined by whether complying with RFS II created the hardship solely, not compliance with RFS II amongst other factors. The oil refiners appealed this ruling.

Ethanol Production

The plants we have invested in are designed to use the dry milling method of producing ethanol. In the dry milling process, the entire corn kernel is first ground into flour, which is referred to as "meal," and processed without separating out the various component parts of the grain. The meal is processed with enzymes, chemicals and water, and then placed in a high-temperature cooker. It is then transferred to fermenters where yeast is added and the conversion of sugar to ethanol begins. After fermentation, the resulting liquid is transferred to distillation columns where the ethanol is separated from the remaining "stillage" for fuel uses. The anhydrous ethanol is then blended with a denaturant, such as natural gasoline, to render it undrinkable and thus not subject to beverage alcohol tax. With the starch elements of the corn consumed in the above described process, the principal by-product produced by the dry milling process is dry distillers grains with solubles, or DDGS. DDGS is sold as a protein used in animal feed, which recovers a portion of the corn value not absorbed in ethanol production. Depending on market and operating conditions, we may also sell modified distillers grains or wet distillers grains by removing less liquid content compared to DDGS. We also generate revenues from the sale of non-food grade corn oil produced at our facilities. Non-food grade corn oil is sold to the animal feed market, as well as biodiesel and other chemical markets.

The Primary Uses of Ethanol

Blend component. Today, much of the ethanol blending in the U.S. is done to meet the RFS. Most regular gasoline is produced using blendstock with an octane rating of 84, which is then increased to 87 (the minimum octane rating required in most states) by adding 10% ethanol according to the RFA. The industry is attempting to expand ethanol blending above the current 10% for most vehicles in use. The EPA has approved the use of 15% ethanol ("E-15"), which has an octane rating of 88, in gasoline for cars, SUV's and light duty trucks made in 2001 and later. Previously, the EPA had not granted E-15 the same RVP as E-10 so it could only be sold from September 16 through May 31 for those vehicles in most markets. In May 2019, the EPA finalized regulatory changes to allow the same RVP waiver for E-15 for the summer months that it allows for E-10. This may remove a significant barrier to wider sales of E-15, although E-15 sales are still limited by the lack of infrastructure at retail locations to dispense E-15.

Clean air additive. Ethanol is employed by the refining industry as a fuel oxygenate, which when blended with gasoline, allows engines to combust fuel more completely and reduce emissions from motor vehicles, than gasoline that has not been oxygenated. Ethanol contains 35% oxygen, which results in more complete combustion of the fuel in the engine cylinder. Oxygenated gasoline is used to help meet certain federal and air emission standards.

Octane enhancer. Ethanol increases the octane rating of gasoline with which it is blended. Octane is a measure of fuel performance. Ethanol is used by gasoline suppliers as an octane enhancer both for producing regular grade gasoline from lower octane blending stocks and for upgrading regular gasoline to premium grades.

Legislation

The United States ethanol industry is highly dependent upon federal and state legislation. See Item 1A. Risk Factors for a discussion of legislation affecting the U.S. ethanol industry.

Refined Coal Overview

On August 10, 2017, we purchased, through a 95.35% owned subsidiary, the entire ownership interest of an entity that owns a refined coal facility. We began operating the refined coal facility immediately after the acquisition. Using licensed technology, our plant applies two separate chemicals to convert feedstock coal into refined coal, which is sold to the end user of the refined coal. We expect that the refined coal operating results will be subsidized by federal production tax credits through November 2021, subject to meeting qualified emissions reductions as governed by Section 45 of the Internal Revenue Code ("IRC"). In order to maintain compliance with Section 45 of the IRC, we are required to test every six months, through an independent laboratory, the effectiveness of our process with respect to emissions reductions. Annually, the IRS publishes the amount of federal income tax credit earned per ton of refined coal produced and sold for a given calendar year, which for 2019 is \$7.173 per ton.

Section 45 of the IRC was created by Congress to encourage the development and use of environmentally sound solutions to control harmful emissions during energy production and to facilitate and move the United States towards better compliance with global environmental energy standards. The American Jobs Creation Act of 2004 amended Section 45 of the IRC by adding provisions to incentivize the production of emission reducing refined coal. To qualify for tax credits under Section 45 of the IRC, a process must reduce coal emissions of nitrogen oxide by 20% and either sulfur dioxide or mercury by 40%. The tax credits can be earned for refined coal produced and sold by our facility through November 2021.

Facilities

As of our fiscal year end, our consolidated ethanol entities owned a combined 477 acres of land and two facilities that shipped a combined quantity of approximately 235 million gallons of ethanol in fiscal year 2019. We also own our corporate headquarters office building, consisting of approximately 7,500 square feet, located in Dayton, Ohio. We own a refined coal plant that is located on leased property on the site of an electrical generating station.

Employees

At January 31, 2020, we had 128 employees at our two consolidated ethanol plants and at our corporate headquarters. None of our employees are represented by a labor union. We expect this employment level to remain relatively stable. We consider our relationship with our employees to be good.

Service Marks

We have registered the service marks "REX", and "Farmer's Energy", with the United States Patent and Trademark Office. We are not aware of any adverse claims concerning our service marks.

Item 1A. Risk Factors

We encourage you to carefully consider the risks described below and other information contained in this report when considering an investment decision in REX common stock. Any of the events discussed in the risk factors below may occur. If one or more of these events do occur, our results of operations, financial condition or cash flows could be materially adversely affected. In this instance, the trading price of REX stock could decline, and investors might lose all or part of their investment.

Risks Related to our Ethanol and By-Products Business

During the early months of 2020, a new strain of COVID-19 spread into the United States and other countries.

In an effort to contain the spread of this virus, there have been various government mandated restrictions, in addition to voluntary privately implemented restrictions, including limiting public gatherings, retail store closures, restrictions on employees working and the quarantining of people who may have been exposed to the virus. The duration of the resulting downturn in economic activity is unknown both on a macro and a micro level. However, it has led to historically low ethanol pricing. This could lead to prolonged production stoppages at our ethanol plants and could result in an adverse material impact on the results of operations and on our financial position. We have idled our NuGen and One Earth ethanol plants.

The ethanol industry is changing rapidly which could result in unexpected developments that could negatively impact our operations.

According to the RFA, the ethanol industry has grown from approximately 1.5 billion gallons of domestic annual ethanol production in 1999 to approximately 16.1 billion gallons in 2018. In 2019, the industry produced approximately 15.8 billion gallons, with the reduction reflecting industry conditions. Thus, there have been significant changes in the supply and demand of ethanol over a relatively short period of time which could lead to difficulty in maintaining profitable operations at our ethanol plants.

The financial returns on our ethanol investments are highly dependent on commodity prices, which are subject to significant volatility, uncertainty and regional supply shortages, so our results could fluctuate substantially.

The financial returns on our ethanol investments are highly dependent on commodity prices, especially prices for corn, natural gas, ethanol, dried distillers grains, non-food grade corn oil and unleaded gasoline. As a result of the volatility of the prices for these items, our returns may fluctuate substantially and our investments could experience periods of declining prices for their products and increasing costs for their raw materials, which could result in operating losses at our ethanol plants.

Our returns on ethanol investments are highly sensitive to grain prices.

Corn is the principal raw material our ethanol plants use to produce ethanol and by-products. As a result, changes in the price of corn can significantly affect our businesses. Rising corn prices result in higher production costs of ethanol and by-products. Because ethanol competes with non-corn-based fuels, our ethanol plants may not be able to pass along increased grain costs to our customers. At certain levels, grain prices may make ethanol uneconomical to produce.

The price of corn is influenced by weather conditions and other factors affecting crop yields, transportation costs, farmer planting decisions, exports, the value of the U.S. dollar and general economic, market and regulatory factors. These factors include government policies and subsidies with respect to agriculture and international trade and global and local demand and supply. The significance and relative effect of these factors on the price of corn is difficult to predict. Any event that tends to negatively affect the production and/or supply of corn, such as adverse weather or crop disease, could increase corn prices and potentially harm the business of our ethanol plants, to include intermittent production slowdowns or stoppages. Increasing

domestic ethanol capacity could boost the demand for corn and result in increased corn prices. Much of the Midwestern United States experienced adverse weather conditions, primarily during the early months of 2019 which led to a smaller harvest of corn and increased corn prices. Our ethanol plants may also have difficulty, from time to time, in physically sourcing corn on economic terms due to regional supply shortages, transportation issues, or unfavorable local pricing. Such a shortage or price impact could require our ethanol plants to suspend operations which would have a material adverse effect on our consolidated results of operations.

The spread between ethanol and corn prices can vary significantly.

The gross margin at our ethanol plants depends principally on the spread between ethanol and corn prices. Fluctuations in the spread are likely to continue to occur. A sustained narrow or negative spread, whether as a result of sustained high or increased corn prices or sustained low or decreased ethanol prices, would adversely affect the results of operations at our ethanol plants.

Our risk management strategies may be ineffective and may expose us to decreased profitability and liquidity.

In an attempt to partially offset the impact of volatility of commodity prices, we enter into forward contracts to sell a portion of our ethanol and distillers grains production and to purchase a portion of our corn and natural gas requirements. The financial impact of these risk management activities is dependent upon, among other items, the prices involved and our ability to receive or deliver the commodities involved. Risk management activities can result in financial loss when positions are purchased in a declining market or when positions are sold in an increasing market. In addition, we may not be able to match the appropriate quantity of corn contracts with quantities of ethanol, distillers grains and non-food grade corn oil contracts. We vary the amount of risk management techniques we utilize, and we may choose not to engage in any risk management activities. Should we fail to properly manage the inherent volatility of commodities prices, our results of operations and financial condition may be adversely affected.

The market for natural gas is subject to market conditions that create uncertainty in the price and availability of the natural gas that our ethanol plants use in their manufacturing process.

Our ethanol plants rely upon third parties for their supply of natural gas, which is consumed as fuel in the production process. The prices for and availability of natural gas are subject to volatile market conditions. These market conditions often are affected by factors beyond the ethanol plants' control, such as weather conditions, overall economic conditions and foreign and domestic governmental regulation and relations. Significant disruptions in the supply of natural gas could impair or completely prevent the ethanol plants' ability to economically manufacture ethanol for their customers. Furthermore, increases in natural gas prices may adversely affect results of operations and financial position at our ethanol plants.

Fluctuations in the selling price of commodities may reduce profit margins at our ethanol plants.

Ethanol is marketed as a fuel additive to reduce vehicle emissions from gasoline, as an octane enhancer to improve the octane rating of gasoline with which it is blended and, to a lesser extent, as a gasoline substitute. As a result, ethanol prices are influenced by the supply and demand for gasoline and our ethanol plants' results of operations and financial position may be materially adversely affected if gasoline demand decreases or the price of gasoline declines making ethanol less economical.

Distillers grains compete with other protein based animal feed products. The price of distillers grains may decrease when the prices of competing feed products decrease. The prices of competing animal feed products are based in part on the prices of the commodities from which these products are made. Historically, sales prices for distillers grains have tracked along with the price of corn. However, there have been instances when the price increase for distillers grains has lagged price increases in corn prices.

The production of distillers grains has increased as a result of increases in dry mill ethanol production in the United States. This could lead to price declines in what we can sell our distillers grains for in the future. Such declines could have an adverse material effect on our results of operations.

Increased ethanol production or decreases in demand for ethanol may result in excess production capacity in the ethanol industry, which may cause the price of ethanol, distillers grains and non-food grade corn oil to decrease.

According to the RFA, domestic ethanol production capacity is approximately 16.9 billion gallons per year. The RFA estimates that approximately 183 million gallons per year of additional production capacity is under construction or expansion. The EPA set the RFS requirement to be satisfied by corn-derived ethanol at 15.0 billion gallons for 2019 and 2020. However, the RFS requirements have been reduced through SRWs issued by the EPA. These SRWs were in the amount of approximately 4.0 billion gallons for 85 refinery exemptions of ethanol for 2016 through 2018. There have been no rulings on waiver requests for subsequent years. As of February 21, 2020, there were 23 SRW requests pending for compliance year 2019. Excess capacity in the ethanol industry could have an adverse effect on the results of our operations. In a manufacturing industry with excess capacity, producers have an incentive to manufacture additional products for so long as the price exceeds the marginal cost of production (i.e., the cost of producing only the next unit, without regard for interest, overhead or fixed costs). This incentive could result in the reduction of the market price of ethanol to a level that is inadequate to generate sufficient cash flow to cover costs.

Excess capacity may also result from decreases in the demand for ethanol, which could result from a number of factors, including, but not limited to, regulatory developments and reduced U.S. gasoline consumption. Reduced gasoline consumption could occur as a result of increased prices for gasoline or crude oil, which could cause businesses and consumers to reduce driving or acquire vehicles with more favorable gasoline mileage or acquire non-gasoline powered vehicles. In addition, decreased overall economic activity could also lead to reduced gasoline consumption.

In addition, because ethanol production produces distillers grains and non-food grade corn oil as by-products, increased ethanol production will also lead to increased supplies of distillers grains and non-food grade corn oil. An increase in the supply of distillers grains and non-food grade corn oil, without corresponding increases in demand, could lead to lower prices or an inability to sell our ethanol plants' distillers grains and non-food grade corn oil production. A decline in the price of distillers grains or non-food grade corn oil could have a material adverse effect on the results of our ethanol operations.

The price of ethanol and distillers grains may decline as a result of trade restrictions or duties on ethanol and distillers grains exports from the United States or from unfavorable foreign currency exchange rates.

The United States exported approximately 1.5 billion gallons of ethanol in 2019, down from approximately 1.7 billion gallons in 2018. If producers and exporters of ethanol are subject to trade restrictions, or additional duties are imposed on exports, it may make it uneconomical to export ethanol. Brazil, China and the European Union all have trade barriers or tariffs against fuel ethanol. In 2013, the European Union imposed a five year tariff of \$83.33 per metric ton on U.S. fuel ethanol to discourage competition. Effective January 1, 2017, China indicated its intention to raise its 5% tariff on U.S. and Brazil fuel ethanol to 30%. On April 1, 2018, China raised their tariff rate to 45%, and later raised it to 70% in the U.S. and China trade war. On September

1, 2017, Brazil imposed a 20% tariff on U.S. fuel ethanol imports in excess of 150 million liters, or 39.6 million gallons per quarter. The tariff on U.S. fuel ethanol was valid for two years. In a resolution published August 31, 2019, Brazil raised its annual import quota to 198 million gallons per year, which awaits final approval by the Brazilian government. Furthermore, unfavorable changes in foreign currency exchange rates could reduce the demand for United States ethanol exports. This could result in an oversupply of ethanol in the United States, which could have a material adverse effect on the results of our ethanol operations.

Exports of distillers grains produced in the United States have been increasing in recent years. In 2019, approximately 10.9 million metric tons ("mmt") of distillers grains were exported of the approximately 36.0 mmt produced in the U.S. However, the export market may be jeopardized if foreign governments impose trade barriers or other measures to protect the foreign local markets. The Chinese export market was approximately 2% of global shipments in 2019 versus approximately 51% in 2015, due to punitive tariffs established beginning January 2017 in effect for 5 years per the RFA. If producers and exporters of distillers grains are subjected to trade barriers when selling distillers grains to foreign customers, there may be a reduction in the price of distillers grains in the United States. In addition, foreign currency exchange rate fluctuations could reduce the demand for United States exports of distillers grains. Declines in the price we receive for our distillers grains could lead to decreased revenues and may result in our inability to operate our ethanol plants profitably.

Future demand for ethanol is uncertain and changes in overall consumer demand for transportation fuel could affect demand.

There are limited markets for ethanol other than what is federally mandated. Increased consumer acceptance of E15 and E85 fuel is likely necessary in order for ethanol to achieve significant market share growth beyond federal mandate levels.

We depend on our partners to operate certain of our ethanol investments.

Our investments currently represent both majority and minority equity positions. Day-to-day operating control of minority owned plants generally remains with the local investor group. We do not have the ability to directly modify the operations of these plants in response to changes in the business environment or in response to any deficiencies in local operations of the plants. In addition, local plant operators, who also represent the primary suppliers of corn and other crops to the plants, may have interests, such as the price and sourcing of corn and other crops, that may differ from our interest, which is based solely on the operating profit of the plant. The limitations on our ability to control day-to-day plant operations could adversely affect plant results of operations.

We may not successfully acquire or develop additional ethanol investments.

The growth of our ethanol business depends on our ability to identify and develop new ethanol investments. Our ethanol development strategy depends on referrals, and introductions, to new investment opportunities from industry participants, such as ethanol plant builders, financial institutions, marketing agents and others. We must continue to maintain favorable relationships with these industry participants, and a material disruption in these sources of referrals would adversely affect our ability to expand our ethanol investments.

Any expansion strategy will depend on prevailing market conditions for the price of ethanol and the cost of corn and natural gas and the expectations of future market conditions. If suitable sites or opportunities are identified, we may not be able to secure the services and products from contractors, engineering firms, construction firms and equipment suppliers necessary to build or expand ethanol plants on a timely basis or on acceptable economic terms. Construction costs may increase to levels that would make a new plant too expensive to complete or unprofitable to operate. Additional financing may also be necessary to implement

any expansion strategy, which may not be accessible or available on acceptable terms. New and more stringent environmental regulations could increase the operating costs and risks of new plants, which, in turn could discourage us from further expansion. In addition, failure to adequately manage the risks associated with additional ethanol investments could have a material adverse effect on our business.

Our ethanol plants may be adversely affected by technological advances and efforts to anticipate and employ such technological advances may prove unsuccessful.

The development and implementation of new technologies may result in a significant reduction in the costs of ethanol production. For instance, any technological advances in the efficiency or cost to produce ethanol from inexpensive cellulosic sources such as corn stalk, wheat, oat or barley straw could have an adverse effect on our ethanol plants, because our plants are designed to produce ethanol from corn, which is, by comparison, a raw material with other high value uses. We cannot predict when new technologies may become available, the rate of acceptance of new technologies by competitors or the costs associated with new technologies. In addition, advances in the development of alternatives to ethanol could significantly reduce demand for or eliminate the need for ethanol.

Any advances in technology which require significant unanticipated capital expenditures to remain competitive or which reduce demand or prices for ethanol would have a material adverse effect on the results of our ethanol operations.

In addition, alternative fuels, additives and oxygenates are continually under development. Alternative fuel additives that can replace ethanol may be developed, which may decrease the demand for ethanol. It is also possible that technological advances in engine and exhaust system design and performance could reduce the use of oxygenates, which would lower the demand for ethanol, and the results of our ethanol operations may be materially adversely affected.

The U.S. ethanol industry is highly dependent upon a myriad of federal and state legislation and regulation and any changes in legislation or regulation could materially and adversely affect our results of operations and financial position.

The Energy Independence and Security Act of 2007 (EISA) established RFS II, which modified the renewable fuel standard from prior legislation. EISA increased the amount of renewable fuel required to be blended into gasoline and required a minimum usage of corn-derived renewable fuels of 12.0 billion gallons in 2010, increasing annually by 600 million gallons to 15.0 billion gallons in 2015 through 2022, with no specified volume subsequent to 2022. The EPA has the authority to assign the mandated amounts of renewable fuels to be blended into transportation fuel to individual fuel blenders. RFS II has been a primary factor in the growth of ethanol usage. Over the past several years various pieces of legislation have been introduced to the U.S. Congress that were intended to reduce or eliminate ethanol blending requirements. To date, none of the bills have been successful but they are an indication of the continued effort to undermine the EISA.

Under EISA, the EPA has the authority to waive or modify the mandated RFS II requirements in whole or in part. In order to grant a waiver, the EPA administrator must determine in consultation with the Secretaries of Agriculture and Energy, that one of the following two conditions has been met: i) there is inadequate domestic renewable fuel supply or ii) implementation of the requirement would severely harm the economy or environment of a state, region or the country. In certain past years the EPA has taken action to reduce the mandated gallons called for under EISA for both conventional and advanced renewable fuels.

Pursuant to RFS II, if mandatory renewable fuel volumes are reduced by at least 20% for two consecutive years, the EPA is required to modify, or reset, statutory volumes through 2022. While conventional ethanol was maintained at 15 billion gallons, 2019 was the second consecutive year the total proposed RVOs was more than 20% below statutory volumes levels. The EPA Administrator directed his staff to initiate the reset rulemaking process. However, the EPA has announced it will not move forward with a reset rulemaking in 2020.

Obligated parties use renewable identification numbers ("RINs") to show compliance with RFS-mandated volumes. RINs are attached to renewable fuels by producers and detached when the renewable fuel is blended with transportation fuel or traded in the open market. The market price of detached RINs affects the price of ethanol in certain markets and influences the purchasing decisions by obligated parties. As a result of fluctuations in RINs pricing, certain obligated parties have petitioned the EPA and filed court actions to change the point of obligation or to seek relief from their obligation. The EPA has granted 85 total SRWs for 2016 through 2018 totaling approximately 4.0 billion gallons. This action has led to reduced values for RINs and further action could decrease RIN values and ethanol pricing. As of February 21, 2020, there were 23 SRWs pending for compliance year 2019. In a decision that could impact the granting of SRW's, the U.S. Court of Appeals for the 10th Circuit recently vacated decisions by the EPA to extend exemptions to renewable fuel obligations to three small refineries. The refineries appealed this ruling.

At the same time the EPA took action (in 2019) to allow the RVP waiver for E-15 for the summer months, it also took RIN market reform action. The reform action requires public disclosure when RIN holdings exceed specified thresholds by an entity and requires the reporting of additional price and affiliate data to the EPA.

If the United States were to withdraw from or materially modify certain international trade agreements, our business, financial condition and results of operations could be materially adversely affected. Ethanol and other products that we produce are sold into various other countries with trade agreements with the United States. If tariffs were raised on the foreign-sourced goods that lead to retaliatory actions, it could have material adverse effect on our business, financial condition and results of operations.

The inability to generate or obtain RINs could adversely affect our operating results. Virtually all of our ethanol is sold with RINs that are used by customers to comply with RFS II. If our production does not meet EPA requirements for RIN generation in the future, we would have to purchase RINs in the open market or sell our ethanol at substantially lower prices to adjust for the absence of RINs. The price of RINs varies based on many factors and cannot be predicted. Failure to obtain sufficient RINS or reliance on invalid RINs could subject us to fines and penalties imposed by the EPA.

Changes in corporate average fuel economy standards could adversely impact ethanol prices. Flexible fuel vehicles receive preferential treatment in meeting federally mandated corporate average fuel economy ("CAFE") standards for automobiles manufactured by car makers. High blend ethanol fuels such as E-85 result in lower fuel efficiencies. Absent the CAFE preferences, car makers would not likely build flexible-fuel vehicles. Any change in CAFE preferences could reduce the growth of E-85 markets and result in lower ethanol prices.

Various studies have criticized the efficiency of ethanol, in general, and corn-based ethanol in particular, which could lead to the reduction or repeal of incentives and tariffs that promote the use and domestic production of ethanol or otherwise negatively impact public perception and acceptance of ethanol as an alternative fuel.

Although many trade groups, academics and governmental agencies have supported ethanol as a fuel additive that promotes a cleaner environment, others have criticized ethanol production as consuming considerably more energy and emitting more greenhouse gases than other biofuels and as potentially depleting water resources. Other studies have suggested that corn-based ethanol is less efficient than ethanol produced from switchgrass or wheat grain and that it negatively impacts consumers by causing prices for dairy, meat and other foodstuffs from livestock that consume corn to increase.

If these views gain acceptance, support for existing measures promoting use and domestic production of corn-based ethanol could decline, leading to reduction or repeal of these measures. These views could also negatively impact public perception of the ethanol industry and acceptance of ethanol as an alternative fuel.

Federal support of cellulosic ethanol may result in reduced incentives to corn-derived ethanol producers.

The American Recovery and Reinvestment Act of 2009 and EISA provide funding opportunities in support of cellulosic ethanol obtained from biomass sources such as switchgrass and poplar trees. The amended RFS mandates an increasing level of production of non-corn-derived biofuels. These federal policies may suggest a long-term political preference for cellulosic processes using alternative feedstocks such as switchgrass, silage or wood chips. Cellulosic ethanol has a smaller carbon footprint than corn-derived ethanol and is unlikely to divert foodstuff from the market. Several cellulosic ethanol plants are under development and there is a risk that cellulosic ethanol could displace corn ethanol. Our plants are designed as single-feedstock facilities, located in corn production areas with limited alternative feedstock nearby, and would require significant additional investment to convert to the production of cellulosic ethanol. The adoption of cellulosic ethanol as the preferred form of ethanol could have a significant adverse effect on our ethanol business.

Our ethanol business is affected by environmental and other regulations which could impede or prohibit our ability to successfully operate our plants.

Our ethanol production facilities are subject to extensive air, water and other environmental regulations. We have had to obtain numerous permits to construct and operate our plants. Regulatory agencies could impose conditions or other restrictions in the permits that are detrimental, or which increase our costs. More stringent federal or state environmental regulations could be adopted which could significantly increase our operating costs or require us to expend considerable resources.

Our ethanol plants emit various airborne pollutants as by-products of the ethanol production process, including carbon dioxide (a greenhouse gas). In 2007, the U.S. Supreme Court classified carbon dioxide as an air pollutant under the Clean Air Act in a case seeking to require the EPA to regulate carbon dioxide in vehicle emissions. In February 2010, the EPA released its final regulations on the Renewable Fuel Standard program. We believe our plants are grandfathered up to certain operating capacity, but recent plant expansion requires us to meet a 20% threshold reduction in greenhouse gas (GHG) emissions from a 2005 baseline measurement to produce ethanol eligible for the RFS II mandate. To further expand our plant capacity, we may be required to obtain additional permits, install advanced technology equipment, or reduce drying of certain amounts of distillers grains. We may also be required to install carbon dioxide mitigation equipment or take other steps in order to comply with future laws or regulations. Compliance with future laws or regulations of carbon dioxide, or if we choose to expand capacity at certain of our plants, compliance with then-current regulations of carbon dioxide, could be costly and may prevent us from operating our plants as profitably, which may have a negative impact on our financial performance. We also face the risk of ethanol production above our grandfathered capacity not qualifying for RINS if the plants do not meet certain emission requirements.

The California Air Resources Board ("CARB") has adopted a Low Carbon Fuel Standard ("LCFS") requiring a 10% reduction in GHG emissions from transportation fuels by 2020. An Indirect Land Use Charge is included in this lifecycle GHG emission calculation. After a series of rulings that temporarily prevented CARB from enforcing these regulations, the State of California Office of Administrative Law approved the LCFS on November 26, 2012 and revised LCFS regulations took effect in January 2013. This standard could have an adverse impact on the market for combased ethanol in California if corn-based ethanol fails to achieve lifecycle GHG emission reductions. This could have a negative impact on our financial performance.

Our ethanol business may become subject to various environmental and health and safety and property damage claims and liabilities.

Operation of our ethanol business exposes the business to the risk of environmental and health and safety claims and property damage claims, such as failure to comply with environmental regulations. These types of claims could also be made against our ethanol business based upon the acts or omissions of other persons. Serious claims could have a material negative impact on our results of operations, financial position and future cash flows.

Our business is not diversified.

Our financial results depend heavily on our ability to operate our ethanol plants profitably. Our lack of diversification could have a material negative impact on our results of operations, financial position and future cash flows should our ethanol plants operate unprofitably.

We may have commitments to produce and sell ethanol.

We may, at times, sell our products with forward contracts. If we are unable to produce the products due to economic conditions, business interruption, or other factors, we may incur additional costs or have to obtain commodities at unfavorable prices to meet our contractual commitments. This could have a material adverse effect on our results of operations.

We may have commitments to purchase commodities.

We may, at times, purchase certain commodities with forward contracts without a corresponding quantity of ethanol sold via forward contracts at known prices. Should ethanol and by-product prices decline to levels that would lead to significant unprofitable results of operations, we may incur additional costs and/or losses to meet our contractual commitments. This could have a material adverse effect on our results of operations.

Our revenue from the sale of distillers grains depends upon its continued market acceptance as an animal feed.

Distillers grains is a by-product from the fermentation of corn to produce ethanol. Antibiotics may be used during the fermentation process to control bacterial contamination; therefore, antibiotics may be present in small quantities in distillers grains marketed as animal feed. The U. S. Food and Drug Administration's Center for Veterinary Medicine has expressed concern about potential animal and human health hazards from the use of distillers grains as an animal feed due to the possibility of antibiotic residues. If the public became concerned about the impact of distillers grains in the food supply or as an acceptable animal feed, the market for distillers grains could be negatively impacted, which would have a negative impact on our results of operations. We may not be able to obtain a suitable replacement for antibiotics, should this be required, which would also negatively impact the market for distillers grains.

An estimated 30% of distillers grains produced in the United States were exported in 2019. The price of distillers grains has benefitted from the exports of the product. In recent years, certain countries have refused to import U.S. distillers grains for a variety of reasons. If export shipments are rejected or delayed, the market price for distillers grains would be negatively impacted, which would have a negative impact on our ethanol results of operations.

We extract non-food grade corn oil immediately prior to the production of distillers grains. Several studies are attempting to determine whether non-food grade corn oil extraction may impact the nutritional value of the resulting distillers grains. If it is determined that non-food grade corn oil extraction adversely impacts the nutritional energy content of distillers grains, the value of the distillers grains we sell may be negatively impacted, which would have a negative impact on our results of operations.

We face significant competition in the ethanol industry.

We face significant competition for new ethanol investment opportunities. There are varied enterprises seeking to participate in the ethanol industry. Some enterprises provide financial and management support similar to our business model. Other enterprises seek to acquire or develop plants which they will directly own and operate. Many of our competitors are larger and have greater financial resources and name recognition than we do. We must compete for investment opportunities based on our strategy of supporting and enhancing local development of ethanol plant opportunities. We may not be successful in competing for investment opportunities based on our strategy.

The ethanol industry is primarily comprised of entities that engage exclusively in ethanol production and large integrated grain companies that produce ethanol along with their base grain business. Several large oil companies have entered the ethanol production market. If these companies increase their ethanol plant ownership or if other oil companies seek to engage in direct ethanol production, there would be less of a need to purchase ethanol from independent producers such as our ethanol plants. No assurance can be given that our ethanol plants will be able to compete successfully or that competition from larger companies with greater financial resources will not have a materially adverse impact on the results of our ethanol operations.

We may face competition from foreign producers.

There is a risk of foreign competition in the ethanol industry. Brazil is presently the second largest producer of ethanol in the world. Brazil's ethanol production is sugarcane based, and, depending on feedstock prices, may be cheaper to produce than corn-derived ethanol. Under the RFS, certain parties were obligated to meet an advanced biofuel standard. In recent years, sugarcane based ethanol imported from Brazil has been one of the most economical means for obligated parties to comply with this standard.

If significant additional foreign ethanol production capacity is created, such facilities could create excess supplies of ethanol, which may result in lower prices of ethanol. In addition, foreign ethanol producers may be able to produce ethanol at costs lower than ours. These risks could have significant adverse effects on our financial performance.

We are exposed to credit risk from our sales of ethanol and distillers grains to customers.

The inability of a customer to make payments to us for our accounts receivable may cause us to experience losses and may adversely impact our liquidity and our ability to make our payments when due.

We may not be able to hire and retain qualified personnel to operate our ethanol plants.

Our ability to attract and retain competent personnel has a significant impact on operating efficiencies and plant profitability. Competition for key plant employees in the ethanol industry can be intense, and we may not be able to attract and retain qualified employees. Failure to do so could have a negative impact on our financial results at individual plants.

Our plants depend on an uninterrupted supply of energy and water to operate. Unforeseen plant shutdowns could harm our business.

Our plants require a significant and uninterrupted supply of natural gas, electricity and water to operate. We generally rely on third parties to provide these resources. If there is an interruption in the supply of energy or water for any reason, such as supply, delivery or mechanical problems and we are unable to secure an adequate alternative supply to sustain plant operations, we may be required to stop production. A production halt for an extended period of time could result in material losses.

Potential business disruption from factors outside our control, including natural disasters, severe weather conditions, accidents, strikes, unexpected equipment failures and unforeseen plant shutdowns, could adversely affect our cash flow and operating results.

The debt agreements for certain of the ethanol plants limit, or otherwise restrict the amount of dividends and other payments the ethanol subsidiaries can transfer to their members.

We are dependent on dividends from our ethanol subsidiaries to generate cash flow. Presently our unconsolidated ethanol subsidiary has debt agreements that limit payments to members. Therefore, this company cannot distribute all of the cash it generates to its members. Furthermore, we may not be able to use the excess cash flow from one subsidiary to fund corporate needs or needs of another operating ethanol subsidiary.

We rely on information technology in our operations and financial reporting and any material failure, inadequacy, interruption or security breach of that technology could harm our ability to efficiently operate our business and report our financial results accurately and timely.

We rely heavily on information technology systems across our operations, including for management of inventory, purchase orders, production, invoices, shipping, accounting and various other processes and transactions. Our ability to effectively manage our business, coordinate the production, distribution and sale of our products and ensure the timely and accurate recording and disclosure of financial information depends significantly on the reliability and capacity of these systems. The failure of these systems to operate effectively, problems with transitioning to upgraded or replacement systems, or a breach in security of these systems through a cyber-attack or otherwise could cause delays and/or interruptions in plant operations, product sales, reduced efficiency of our operations and delays in reporting our financial results. Significant capital investments could be required to remediate any such problem. Security breaches of employee information or other confidential or proprietary data could also adversely impact our reputation and could result in litigation against us or the imposition of penalties.

We are exposed to potential business disruption from factors outside our control, including natural disasters, severe weather conditions, accidents, pandemic diseases and unforeseen operational failures any of which could negatively affect our transportation operations and could adversely affect our cash flows and operating results.

Potential business disruption in available transportation due to natural disasters, severe weather conditions, the outbreak of a pandemic disease, significant track damage resulting from a train derailment, strikes or other interruptions by our transportation providers could result in delays in procuring and supplying raw materials to our ethanol facilities, or transporting ethanol and distillers grains to our customers. Such business disruptions may result in our inability to meet customer demand or contract delivery requirements, as well as the potential loss of customers.

Rail cars used to transport ethanol may need to be modified or replaced to meet proposed rail safety regulations.

The leased rail cars we use to transport ethanol to market will need to be retrofitted or replaced as the Enhanced Tank Car Standards and Operation Controls for High-Hazard Flammable Trains adopted by the U.S. Department of Transportation ("DOT") imposes an enhanced tank car standard known as the DOT specification 117 and establishes a schedule to retrofit or replace older tank cars that carry crude oil and ethanol. The rule also establishes braking standards intended to reduce the severity of accidents and new operational protocols. This could lead to increased rail car lease costs and delays in transportation of ethanol if rail cars are out of service for extended periods of time.

We operate in a capital intensive industry. Limitations on external financing could adversely affect our financial performance.

We may need to incur additional financing to fund growth of our business or in times of increasing liquidity requirements (such as increases in raw material costs). Bankruptcy filings by several ethanol companies in past years and capital market volatility has reduced available capital for the ethanol industry. Any delays in obtaining additional financing, or our inability to do so, could have a material adverse impact on our financial results.

Risks Related to our Refined Coal Operations

During the early months of 2020, a new strain of COVID-19 spread into the United States and other countries.

In an effort to contain the spread of this virus, there have been various government mandated restrictions, in addition to voluntary privately implemented restrictions, including limiting public gatherings, retail store closures, restrictions on employees working and the quarantining of people who may have been exposed to the virus. The duration of the resulting downturn in economic activity is unknown both on a macro and a micro level. This could lead to prolonged production stoppages or interruptions at our refined coal plant and could result in an adverse material impact on the results of operations and on our financial position.

Our refined coal investment is subject to various risks and uncertainties.

We purchased a company that produces refined coal that we believe qualifies to earn tax credits under IRC Section 45 through November 2021. Our ability to generate returns and avoid write-offs in connection with this investment is subject to various risks and uncertainties. These include, but are not limited to, the risks and uncertainties as set forth below.

Availability of the tax credits under IRC Section 45.

Our ability to claim tax credits under IRC Section 45 depends upon the operation which we have purchased satisfying certain ongoing conditions set forth in IRC Section 45. Furthermore, the tax credits under IRC Section 45 could be reduced or eliminated as a result of changes in income tax laws and/or regulations.

The IRS could ultimately determine that the refined coal facility we purchased and/or its operations have not satisfied, or have not continued to satisfy, the conditions set forth in IRC Section 45. As our refined coal operation is expected to generate pre-tax losses, the unavailability of the tax credits for any reason could have a material impact on our results of operations.

IRC Section 45 phase out provisions.

IRC Section 45 contains phase out provisions based upon the market price of coal such that, if the price of coal rises to specified levels, we could lose some or all of the tax credits we expect to receive from this operation.

The refined coal operation depends on one customer.

The refined coal operation receives tax credits by selling its refined coal to an unrelated party. The unrelated party is not obligated to continue purchasing refined coal from us. Our user of refined coal could convert its fuel source to natural gas, oil or some other source instead of coal depending on the price of natural gas, oil or other sources relative to that of coal. If the unrelated party ceases to purchase refined coal from us, we would attempt to move our refined coal plant to a different location, which could require us to invest additional capital, or to find a different user to purchase our refined coal. In addition, we may not be able to find a suitable location to move our refined coal plant to or find a different user to purchase our refined coal in a timely manner, given that we only intend to operate the refined coal plant until November 2021. Market demand for coal may also decline as a result of an economic slowdown. Sustained low natural gas prices may also cause users of coal to phase out or close existing coal using operations. If users of coal burn less coal or eliminate the use of coal, there would be less need for our product. A reduction or cessation of refined coal sales could have a material impact on our results of operations.

Environmental concerns regarding coal could lead to reduced or suspended refined coal operations.

Environmental concerns about greenhouse gases, toxic wastewater discharges and the potentially hazardous nature of coal combustion waste could lead to regulations that discourage the burning of coal. Such regulations could mandate that electric power generating companies purchase a minimum amount of power from renewable energy sources such as wind, hydroelectric, solar and geothermal. This could result in utilities burning less coal, which could have a material impact on our results of operations.

The refined coal operation in which we have invested and the by-products from such operations may result in environmental and product liability claims and environmental compliance costs.

The construction and operation of refined coal operations are subject to Federal, state and local laws, regulations and potential liabilities arising under or relating to the protection or preservation of the environment, natural resources and human health and safety. Such laws and regulations generally require the operations and/or the utilities at which the operations are located to obtain and comply with various environmental registrations, licenses, permits, inspections and other approvals. Such laws and regulations also impose liability, without regard to fault or the legality of a party's conduct, on certain entities that are considered to have contributed to, or are otherwise involved in, the release or threatened release of hazardous substances into the environment. Such hazardous substances could be released as a result of burning refined coal in a number of ways, including air emissions, wastewater, and by-products such as fly ash. One party may, under certain circumstances, be required to bear more than its share or the entire share of investigation and cleanup costs at a site if payments or participation cannot be obtained from other responsible parties. We may be exposed to the risk of becoming liable for environmental damage we may have had little, if any, involvement in creating. Such risk remains even after production ceases at an operation to the extent the environmental damage can be traced to the types of chemicals or compounds used or operations conducted in connection with the use of refined coal.

No assurances can be given that contractual arrangements and precautions taken to ensure assumption of these risks by facility owners or operators will result in that facility owner or operator accepting full responsibility for any environmental damage. It is also not uncommon for private claims by third parties alleging contamination to also include claims for personal injury, property damage, diminution of property or similar claims. Furthermore, many environmental, health and safety laws authorize citizen suits, permitting third parties to make claims for violations of laws or permits and force compliance. Our insurance

may not cover all environmental risk and costs or may not provide sufficient coverage in the event of an environmental claim. If significant uninsured losses arise from environmental damage or product liability claims, or if the costs of environmental compliance increase for any reason, our results of operations and financial condition could be adversely affected.

We rely on a third party to operate the refined coal facility.

We rely on an unrelated third party to operate the refined coal plant. Should the third party fail to perform or underperform in the operation, management or regulatory compliance of the facility, our results of operations and financial condition could be adversely affected as we are not experienced in operating a refined coal facility.

We will have to generate taxable income to utilize the Section 45 federal production tax credits.

If we do not generate sufficient taxable income to utilize the tax credits earned by our refined coal operation, we could incur write-offs of the related tax attributes which could adversely affect our results of operations and financial condition. In addition, this could adversely reduce our liquidity reserves as we expect to incur operating losses sustained by the refined coal operation.

Risks Related to our eSteam investment

eSteam may not be a commercially viable technology.

During fiscal year 2013, we invested in eSteam, a new technology utilizing steam to extract deep heavy oil. Cumulatively, we have paid and expensed approximately \$2.4 million on this patented but unproven technology. To date, we have not tested or proven the viability of the technology. In addition, low energy and crude oil prices may make eSteam technology less attractive to potential users. If we cannot demonstrate that the technology is commercially feasible, we may incur additional losses.

eSteam testing methods and results are not known.

We do not have specific testing methodologies or specifications developed for testing the viability of the eSteam technology. The actual eSteam testing process could result in injury to others, and property and other damages that could expose us to claims for damages from unrelated parties.

Our eSteam technology may be subject to patent challenges.

If our patents of the eSteam technology are challenged, we could be required to spend considerable time and resources defending our patents.

Operations utilizing our eSteam technology may be subject to stringent environmental regulations.

Use of the eSteam technology will require significant amounts of water and energy. If we or third parties are unable to obtain the proper permits and sources of water and energy, then we may not be able to commercialize the new technology, and thus, generate any revenue from our investment.

Operations utilizing our eSteam technology may cause environmental damage.

When testing and operating the eSteam technology, we may cause environmental damage, as we would be injecting water and other fluids into the ground to generate underground steam in order to extract oil. We could be subject to significant penalties and fines if we were to cause environmental damage.

Risks Related to REX and non-industry specific matters

Given the amount of our cash and short-term investments, recent actions by the Federal Reserve, related to the COVID-19 outbreak, which have reduced interest rates and could significantly reduce our interest income in future periods.

Depending on the length of time interest rates remain at these levels, this could result in an adverse material impact on the results of operations and on our financial position.

We have concentrations of cash deposits at financial institutions that exceed federal insurance limits.

We generally have cash deposits that exceed federal insurance limits. Should the financial institutions we deposit our cash in experience insolvency or other financial difficulty, our access to cash deposits could be limited. In extreme cases, we could lose our cash deposits entirely. This would negatively impact our liquidity and results of operations.

We may fail to realize the anticipated benefits of mergers, acquisitions, or other investments.

We intend to continue seeking growth opportunities. Acquisitions and similar transactions involve many risks that could harm our business, which include:

- · The anticipated benefits of these transactions may not be fully realized, or take longer to realize than expected,
- · Future acquisitions could result in operating losses or loss of investment, and
- Future acquisitions may involve incurring debt to complete these transactions, which could have a material adverse effect on our financial condition.

Federal, state and local jurisdictions may challenge our tax return positions.

We use significant judgments, estimates and interpretation and application of complex tax laws in preparing the tax returns we file, and the positions contained therein. We believe that our tax return positions are fully supportable. However, certain positions may be successfully challenged by federal, state and local jurisdictions. This could result in material additional income tax payments we would have to make and higher income tax expense in future periods.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The information required by this Item 2 is set forth in Item 1 of this report under "Ethanol Investments" and "Facilities" and is incorporated herein by reference.

Item 3. <u>Legal Proceedings</u>

We are, from time to time, involved in various legal proceedings incidental to the conduct of our business. We believe that any current proceedings will not have a material adverse effect on our financial condition or results of operations.

Information About Our Executive Officers

Set forth below is certain information about each of our executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Stuart Rose	65	Executive Chairman of the Board*
Zafar Rizvi	70	Chief Executive Officer and President*
Douglas Bruggeman	59	Vice President-Finance, Chief Financial Officer and Treasurer
Edward Kress	70	Secretary*
*Also serves as a director.		•

Stuart Rose was elected our Executive Chairman of the Board in 2015. Mr. Rose had served as our Chairman of the Board and Chief Executive Officer since our incorporation in 1984 as a holding company. Prior to 1984, Mr. Rose was Chairman of the Board and Chief Executive Officer of Rex Radio and Television, Inc., which he founded in 1980 to acquire the stock of a corporation which operated four retail stores.

Zafar Rizvi was elected Chief Executive Officer in 2015. Mr. Rizvi has been our President and Chief Operating Officer since 2010, was Vice President from 2006 to 2010. From 1991 to 2006, Mr. Rizvi was our Vice President – Loss Prevention.

Douglas Bruggeman has been our Vice President–Finance and Treasurer since 1989 and was elected Chief Financial Officer in 2003. From 1987 to 1989, Mr. Bruggeman was our Manager of Corporate Accounting. Mr. Bruggeman was employed with the accounting firm of Ernst & Young prior to joining us in 1986.

Edward Kress has been our Secretary since 1984. Mr. Kress has been a partner of the law firm of Dinsmore & Shohl LLP (formerly Chernesky, Heyman & Kress P.L.L.), our legal counsel, since 1988. Mr. Kress has practiced law in Dayton, Ohio since 1974.

Item 4. <u>Mine Safety Disclosures</u>

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

SHAREHOLDER INFORMATION

Our common stock is traded on the New York Stock Exchange under the symbol REX.

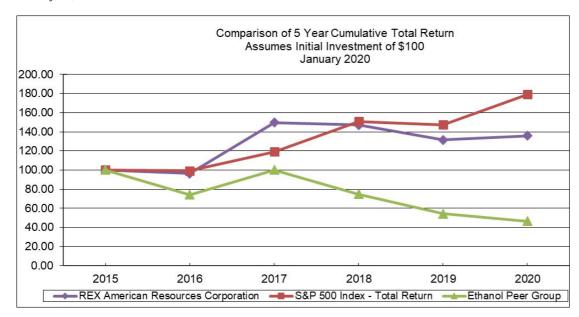
As of March 31, 2020, there were 77 holders of record of our common stock, including shares held in nominee or street name by brokers.

Equity Compensation Plans

Refer to Item 12 – Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters for information regarding shares authorized for issuance under equity compensation plans.

Performance Graph

The following graph compares the yearly percentage change in the cumulative total shareholder return on our Common Stock against the cumulative total return of the S&P 500 Stock Index and a peer group comprised of Pacific Ethanol, Inc. and Green Plains, Inc. for the period commencing January 31, 2015 and ended January 31, 2020. The graph assumes an investment of \$100 in our Common Stock and each index on January 31, 2015 and reinvestment of all dividends.



Item 6. Selected Financial Data

The following statements of operations and balance sheet data have been derived from our consolidated financial statements and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and related Notes. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations for a discussion of net sales and revenue and gross profit, income from ethanol investments, the benefit/provision for income taxes and the refined coal acquisition. These items have fluctuated significantly in recent years and may affect comparability of years.

(In Thousands, Except Per Share Amounts)

Years Ended January 31,	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Statement of Operations Data:					
Net sales and revenue	\$418,034	\$486,671	\$452,586	\$453,799	\$436,488
Gross profit	12,485	30,215	44,161	71,039	50,834
Selling, general and administrative expenses	(19,258)	(20,551)	(24,060)	(21,388)	(19,813)
Equity in income of unconsolidated ethanol affiliates	1,392	1,536	3,232	6,144	8,984
(Loss) gain on sale of investment	-	-	(13)	192	10,385
Benefit (provision) for income taxes	12,813	22,922	19,519	(17,393)	(14,108)
Net income attributable to REX common shareholders	7,427	31,645	39,706	32,333	31,436
Diluted net income per share attributable to REX common shareholders	\$ 1.18	\$ 4.91	\$ 6.02	\$ 4.91	\$ 4.30
	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
January 31,	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Balance Sheet Data:					
Balance Sheet Data: Cash and cash equivalents	\$179,658	\$188,531	2018 \$190,988	2017 \$188,576	2016 \$135,765
Balance Sheet Data:					
Balance Sheet Data: Cash and cash equivalents	\$179,658	\$188,531			
Balance Sheet Data: Cash and cash equivalents Short-term investments Current assets Deferred taxes – long-term asset	\$179,658 26,073	\$188,531 14,975	\$190,988 -	\$188,576 -	\$135,765 -
Balance Sheet Data: Cash and cash equivalents Short-term investments Current assets Deferred taxes – long-term asset Property and equipment – net	\$179,658 26,073 271,135 17,061 163,327	\$188,531 14,975 250,621	\$190,988 -	\$188,576 -	\$135,765 -
Balance Sheet Data: Cash and cash equivalents Short-term investments Current assets Deferred taxes – long-term asset Property and equipment – net Deferred taxes – long-term liability	\$179,658 26,073 271,135 17,061	\$188,531 14,975 250,621 5,843	\$190,988 - 239,034 -	\$188,576 - 226,517 -	\$135,765 - 179,360 -
Balance Sheet Data: Cash and cash equivalents Short-term investments Current assets Deferred taxes – long-term asset Property and equipment – net	\$179,658 26,073 271,135 17,061 163,327	\$188,531 14,975 250,621 5,843 182,521	\$190,988 - 239,034 - 197,827	\$188,576 - 226,517 - 182,761	\$135,765 - 179,360 - 189,976

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

We have been an investor in ethanol production facilities beginning in 2006 and a refined coal production facility in 2017. We currently have equity investments in three ethanol production entities, two of which are majority ownership interests, and a majority ownership in one refined coal production entity. We may make additional alternative energy investments in the future.

Our ethanol operations are highly dependent on commodity prices, especially prices for corn, ethanol, distillers grains, non-food grade corn oil and natural gas. As a result of price volatility for these commodities, our operating results can fluctuate substantially. The price and availability of corn is subject to significant fluctuations depending upon a number of factors that affect commodity prices in general, including crop conditions, weather, federal policy and foreign trade. Because the market price of ethanol is not always directly related to corn prices, at times ethanol prices may not follow movements in corn prices and, in an environment of higher corn prices or lower ethanol prices, reduce the overall margin structure at the plants. As a result, at times, we may operate our plants at negative or minimally positive operating margins.

We expect our ethanol plants to produce approximately 2.8 gallons of denatured ethanol for each bushel of grain processed in the production cycle. We refer to the actual gallons of denatured ethanol produced per bushel of grain processed as the realized yield. We refer to the difference between the price per gallon of ethanol and the price per bushel of grain (divided by the realized yield) as the "crush spread." Should the crush spread decline, it is possible that our ethanol plants will generate operating results that do not provide adequate cash flows for sustained periods of time. In such cases, production at the ethanol plants may be reduced or stopped altogether in order to minimize variable costs at individual plants.

We attempt to manage the risk related to the volatility of commodity prices by utilizing forward grain and natural gas purchase contracts, forward ethanol, distillers grains and non-food grade corn oil sale contracts and commodity futures agreements as management deems appropriate. We attempt to match quantities of these sales contracts with an appropriate quantity of grain purchase contracts over a given period of time when we can obtain an adequate gross margin resulting from the crush spread inherent in the contracts we have executed. However, the market for future ethanol sales contracts generally lags the spot market with respect to ethanol price. Consequently, we generally execute fixed price contracts for no more than four months into the future at any given time and we may lock in our corn or ethanol price without having a corresponding locked in ethanol or corn price for short durations of time. As a result of the relatively short period of time our fixed price contracts cover, we generally cannot predict the future movements in our realized crush spread for more than four months; thus, we are unable to predict the likelihood or amounts of future income or loss from the operations of our ethanol facilities. We utilize derivative financial instruments, primarily exchange traded commodity future contracts, in conjunction with certain of our grain procurement and commodity marketing activities.

Commodity prices in fiscal year 2019 were subject to significant volatility. For fiscal year 2019, the average Chicago Board of Trade ("CBOT") near-month corn price ranged from a low of approximately \$3.47 per bushel in April 2019 to a high of approximately \$4.55 per bushel in June 2019. Corn prices were impacted by wet spring weather conditions, which led to lower acres planted in certain regions, including near the NuGen facility. This resulted in higher local basis amounts for corn than we have historically experienced. Ethanol prices had significant fluctuations ranging from a low of approximately \$1.26 per gallon in August 2019 to a high of approximately \$1.61 per gallon in June 2019. Ethanol prices were influenced by many factors throughout the year including domestic demand, exports and U.S. ethanol supply. Ethanol prices in 2019 and 2018 were negatively impacted, in part, by increased small refiner waivers granted by the Environmental Protection Agency ("EPA") and the resulting reductions to the Renewable Fuel Standard ("RFS") obligations and ethanol demand.

On August 10, 2017, we, through a 95.35% owned subsidiary, purchased the entire ownership interest of an entity that owns a refined coal facility for approximately \$12.0 million. We began operating the refined coal facility immediately after the acquisition. We expect that the revenues from the sale of refined coal produced in the facility will be subsidized by federal production tax credits through November 2021, subject to meeting qualified emissions reductions and other requirements as governed by Section 45 of the Internal Revenue Code. In order to maintain compliance with Section 45 of the Internal Revenue Code, we are required to test every six months, through an independent laboratory, the effectiveness of our process with respect to emissions reductions. Annually, the IRS publishes the amount of federal income tax credit earned per ton of refined coal produced and sold for a given calendar year, which for 2019 is \$7.173 per ton.

Net income attributable to REX common shareholders was approximately \$7.4 million in fiscal year 2019 compared to approximately \$31.6 million in fiscal year 2018. Both fiscal years 2019 and 2018 benefitted from reductions in our effective tax rate resulting from the impact of federal production tax credits associated with our refined coal operations and from the impact of research and experimentation credits associated with our ethanol and by-products operations. Gross profit in fiscal year 2019 was significantly lower compared to fiscal year 2018, primarily a result of lower ethanol crush spreads. During fiscal year 2019, operating results

in our ethanol and by-products segment were adversely affected by a weak margin environment highlighted by higher costs for corn, lower availability of local corn, higher local basis prices for corn and resulting reductions in plant production volumes at our NuGen facility. Due to the inherent volatility of commodity prices within the ethanol industry, the uncertainty regarding future refined coal production and associated financial results, we cannot predict the likelihood of future operating results being similar to the results of historical periods. Due to the economic impact of the spread of a new strain of COVID-19 and recent crush spreads, we have idled our NuGen and One Earth ethanol plants. The impacts of COVID-19 on our business operations, including the duration and impact on ethanol demand cannot be reasonably estimated at this time, although a prolonged production stoppage at our plants would have a material adverse impact on our results of operations, financial condition and cash flows in fiscal year 2020.

We plan to seek and evaluate various investment opportunities including energy related, carbon dioxide related, agricultural or other ventures we believe fit our investment criteria. We can make no assurances that we will be successful in our efforts to find such opportunities.

During fiscal year 2013, through a wholly owned subsidiary REX I.P., LLC, we entered into a joint venture to file and defend patents for technology relating to heavy oil and oil sands production methods, and to attempt to commercially exploit the technology to generate license fees, royalty income and development opportunities. The patented technology is an enhanced method of heavy oil recovery involving zero emissions downhole steam generation. We own 60% and Hytken owns 40% of the entity named Future Energy, LLC, an Ohio limited liability company. Future Energy is managed by a board of three managers, two appointed by us and one by Hytken.

We agreed to fund direct patent expenses relating to patent applications and defense, annual annuity fees and maintenance on a country by country basis, with the right to terminate funding and transfer related patent rights to Hytken. We may also fund all costs relating to new intellectual property, consultants, and future research and development, pilot field tests and equipment purchases for commercialization stage of the patents. To date, we have paid and expensed approximately \$2.4 million to purchase our ownership interest and fund patent and other expenses. We have not tested or proven the commercial feasibility of the technology.

Ethanol Investments

In fiscal year 2006, we entered the ethanol industry by investing in several entities organized to construct and, subsequently operate, ethanol producing plants. We are invested in three entities as of January 31, 2020, utilizing equity investments. The following table is a summary of our ethanol investments at January 31, 2020 (gallons in millions):

	Trailing 12 Months Ethanol Gallons	REX's Current Ownership	Current Effective Ownership of Trailing 12 Months Ethanol Gallons
Entity	Shipped	Interest	Shipped
One Earth Energy, LLC	140.5	75.2%	105.7
NuGen Energy, LLC	94.8	99.5%	94.3
Big River Resources, LLC:			
Big River Resources W Burlington, LLC	111.6	10.3%	11.5
Big River Resources Galva, LLC	121.2	10.3%	12.5
Big River United Energy, LLC	131.8	5.7%	7.5
Big River Resources Boyceville, LLC	60.1	10.3%	6.2
Total	660.0		237.7

Trends and Uncertainties

During fiscal year 2019, operating results in our ethanol and by-products segment have been adversely affected by a weak margin environment highlighted by higher costs for corn, lower availability of local corn and resulting reductions in plant production volumes. Weather conditions delayed, and in some cases prevented the planting of corn in much of the United States, and there continues to be uncertainty regarding the availability of corn on a regional basis. Weather also contributed to intermittent logistical delays during fiscal year 2019. For most of fiscal year 2019, we struggled to obtain adequate supplies of corn at our NuGen facility, on a consistent basis, at acceptable price levels. Consequently, we were not able to operate our NuGen ethanol plant at production levels near our historical averages. Should these trends continue, we may experience intermittent production slowdowns or stoppages. We cannot reasonably predict the likelihood of future period production levels compared to historical averages.

Under RFS, the EPA assigns individual refiners, blenders and importers the volume of renewable fuels they are obligated to use based on their percentage of total domestic transportation fuel sales. The EPA can waive the obligation for individual small refineries that are experiencing "disproportionate economic hardship" due to compliance with the RFS. Until recent years, the EPA approved relatively few such waivers. The EPA has approved 31 SRWs related to their 2018 Renewable Fuel Standard compliance obligations, which is estimated to effectively reduce the obligation for ethanol in 2018 by 1.4 billion gallons. The EPA previously granted waivers for 2016 and 2017 totaling approximately 2.6 billion gallons. These actions affect current year demand as obligated parties such as refiners can use the waivers granted by the EPA to help them meet their obligations in different years. There continues to be uncertainty regarding how the EPA will administer the small refiner waivers for 2019. We believe the waivers have resulted in reduced domestic ethanol demand. As of February 21, 2020, there were 23 SRWs pending for the 2019 compliance year.

During the early months of 2020, a new strain of COVID-19 spread into the United States and other countries. In an effort to contain the spread of this virus, there have been various government mandated restrictions, in addition to voluntary privately implemented restrictions, including limiting public gatherings, retail store closures, restrictions on employees working and the quarantining of people who may have been exposed to the virus. The duration of the resulting downturn in economic activity is unknown both on a macro and a micro level and has led to historically low ethanol pricing such that it is currently unprofitable to operate our ethanol plants at such levels. Consequently, we have idled our NuGen and One Earth ethanol plants. In addition, recent actions by the Federal Reserve, related to the COVID-19 outbreak, have reduced interest rates. Given the amount of cash and short-term investments we have, this will significantly reduce our interest income in future periods, depending on the length of time interest rates remain at these levels. The impacts of COVID-19 on our business operations, including the duration and impact on ethanol demand cannot be reasonably estimated at this time, although a prolonged production stoppage at our plants would have a material adverse impact on our results of operations, financial condition and cash flows in fiscal year 2020.

During fiscal year 2019, operating results in our refined coal segment were adversely affected by lower utility plant demand from our only customer. Projections, provided by the utility plant, for the next twelve months indicate this trend may continue and may be further impacted by the onset of COVID-19. While this leads to lower pre-tax loss amounts from this segment, it also leads to lower tax benefits from Section 45 credits being recognized. Ultimately, this results in lower amounts of segment profit.

Should these trends and uncertainties continue, our future operating results are likely to be negatively impacted.

Results of Operations

For a detailed analysis of period to period changes, see the segment discussion that follows this section as that discussion reflects how management views and monitors our business.

Comparison of Fiscal Years 2019 and 2018 (Consolidated Results)

Net Sales and Revenue — Net sales and revenue in fiscal year 2019 were approximately \$418.0 million, a 14.1% decrease from approximately \$486.7 million in fiscal year 2018. The decrease was primarily caused by lower sales in our ethanol and by-products segment of approximately \$68.2 million.

Gross Profit – Gross profit was approximately \$12.5 million in fiscal year 2019, or 3.0% of net sales and revenue, versus approximately \$30.2 million in fiscal year 2018 or 6.2% of net sales and revenue. Gross profit for fiscal year 2019 decreased by approximately \$23.5 million compared to fiscal year 2018 as a result of operations in the ethanol and by-products segment and increased by approximately \$5.7 million as a result of operations in the refined coal segment.

Selling, General and Administrative ("SG&A") Expenses – SG&A expenses for fiscal year 2019 were approximately \$19.3 million (4.6% of net sales and revenue), a decrease of approximately \$1.3 million or 6.3% from approximately \$20.6 million (4.2% of net sales and revenue) for fiscal year 2018. A majority of the decrease results from lower rail car repairs in fiscal year 2019 and lower incentive compensation expense associated with lower profitability levels in fiscal year 2019 compared to fiscal year 2018. The decrease was also related to commission expense associated with the refined coal acquisition, which was lower in fiscal year 2019 compared to fiscal year 2018. These decreases were partially offset by higher shipping costs as more of the Company's sales contracts provided for shipping to be paid by the Company in fiscal year 2019 compared to fiscal year 2018.

Equity in Income of Unconsolidated Ethanol Affiliates – During fiscal years 2019 and 2018, we recognized income of approximately \$1.4 million and \$1.5 million, respectively, from our equity investment in Big River Resources, LLC ("Big River"), which is included in our ethanol and byproducts segment results. Our investment in Big River, which has interests in four ethanol production plants, has an effective ownership of ethanol gallons shipped in the trailing twelve months ended January 31, 2020 of approximately 366 million gallons.

We expect the operating experience of Big River to be generally consistent with the trends in crush spread margins described in the "Overview" section as Big River's results are dependent on the same key drivers as our other ethanol investments (ethanol, corn, dried distillers grains and natural gas pricing). Due to the inherent volatility of commodity prices within the ethanol industry, we cannot predict the likelihood of future operating results from Big River being similar to the fiscal year 2019 results.

Interest and Other Income – Interest and other income for fiscal year 2019 was approximately \$4.2 million compared to approximately \$3.4 million for fiscal year 2018. Interest income increased as yields on our excess cash improved compared to fiscal year 2018 and excess cash investment balances increased in fiscal year 2019.

(Loss) Income Before Income Taxes – As a result of the foregoing, loss before income taxes was approximately \$1.2 million for fiscal year 2019 versus income of approximately \$14.6 million for fiscal year 2018.

Benefit for Income Taxes – Our effective tax rate was a benefit of 1,096.1% and 157.1% for fiscal years 2019 and 2018, respectively. Our effective rate is impacted by the noncontrolling interests of the companies we consolidate, as we recognize 100% of their income or loss before income taxes and noncontrolling interests. However, we only provide an income tax provision or benefit for our portion of the subsidiaries' income or loss with a noncontrolling interest. Our effective rate is also impacted by the small current year pre-tax loss versus a higher pre-tax income in the prior year. Our effective tax rate decreased by 770.1% in fiscal year 2019 (approximately \$9.0 million) and by 145.2% in fiscal year 2018 (approximately \$21.2 million) as a result of federal production tax credits earned by our refined coal facility. The amount of these credits earned in

future periods will vary with refined coal production levels. During fiscal years 2019 and 2018, our effective tax rate decreased by 116.5% (approximately \$1.4 million) and 77.8% (approximately \$11.4 million), respectively, as a result of research and experimentation credits earned by our ethanol plants. The amount of these credits earned in future periods will vary depending on the level of qualifying research expenditures at our ethanol plants. Primarily related to the statutes of limitation expiring, the provision for uncertain tax positions decreased our effective tax rate by 94.4% (approximately \$1.1 million) in fiscal year 2019.

Net Income – As a result of the foregoing, net income was approximately \$11.6 million for fiscal year 2019 versus approximately \$37.5 million for fiscal year 2018.

Noncontrolling Interests – Income attributable to noncontrolling interests was approximately \$4.2 million and \$5.9 million during fiscal years 2019 and 2018, respectively, and represents the other owners' share of the income or loss of NuGen, One Earth and the refined coal entity. Income attributable to noncontrolling interests of One Earth and NuGen combined was approximately \$4.6 million and approximately \$5.9 million, during fiscal years 2019 and 2018, respectively. The loss attributable to noncontrolling interests of the refined coal entity was approximately \$0.3 million and approximately \$0.7 million during fiscal years 2019 and 2018, respectively. We do not expect to recover any portion of the noncontrolling interests holder's share of current and prior Future Energy losses; thus, we did not recognize any income or expense related to the noncontrolling interests of Future Energy in fiscal year 2019. In fiscal year 2018, we recognized expense of approximately \$0.7 million related to cumulative losses of Future Energy attributable to the noncontrolling interests.

Net Income Attributable to REX Common Shareholders – As a result of the foregoing, net income attributable to REX common shareholders was approximately \$7.4 million for fiscal year 2019 compared to \$31.6 million for fiscal year 2018.

Business Segment Results

We have two reportable segments, i) ethanol and by-products and ii) refined coal. In fiscal year 2017, we began reporting the results of our refined coal operation as a new segment as a result of the August 10, 2017 acquisition of an entity that operates a refined coal facility. Prior to the acquisition, we had one reportable segment, ethanol.

The following sections discuss the results of operations for each of our business segments and corporate and other. As discussed in Note 14, our chief operating decision maker (as defined by Accounting Standards Codification ("ASC") 280, "Segment Reporting" ("ASC 280") evaluates the operating performance of our business segments using net income attributable to REX common shareholders. The following tables

summarize segment and other results and assets (amounts in thousands):

	Fiscal Year			
Net sales and revenue:	2019		2018	
Ethanol and by-products	\$ 417,700	\$	485,885	
Refined coal ¹	334		786	
Total net sales and revenue	\$ 418,034	\$	486,671	
Segment gross profit (loss):				
Ethanol and by-products	\$ 20,402	\$	43,856	
Refined coal	(7,917)		(13,641)	
Total gross profit	\$ 12,485	\$	30,215	
(Loss) income before income taxes:				
Ethanol and by-products	\$ 8,469	\$	31,545	
Refined coal	(7,778)		(15,204)	
Corporate and other	(1,860)		(1,753)	
Total (loss) income before income taxes	\$ (1,169)	\$	14,588	
Benefit (provision) for income taxes:				
Ethanol and by-products	\$ 1,528	\$	(2,343)	
Refined coal	10,828		24,674	
Corporate and other	457		591	
Total benefit for income taxes	\$ 12,813	\$	22,922	
Segment profit (loss):				
Ethanol and by-products	\$ 5,439	\$	23,346	
Refined coal	3,391		10,148	
Corporate and other	(1,403)		(1,849)	
Net income attributable to REX				
common shareholders	\$ 7,427	\$	31,645	

 $^{^{1}}$ We record sales in the refined coal segment net of the cost of coal as we purchase the coal feedstock from the customer to which refined coal is sold.

Ethanol and by-products Segment

The ethanol and by-products segment includes the consolidated financial results of One Earth and NuGen, our equity investment in Big River and certain administrative expenses. The following table summarizes selected data from One Earth and NuGen:

		Fiscal Year			
	2019		2018		
Average selling price per gallon of ethanol	\$	1.37	\$	1.29	
Gallons of ethanol sold (in millions)		235.3		285.8	
Average selling price per ton of dried distillers grains	\$	137.68	\$	142.20	
Tons of dried distillers grains sold		521,163		600,689	
Average selling price per pound of non-food grade corn oil	\$	0.25	\$	0.25	
Pounds of non-food grade corn oil sold (in millions)		68,207		81,758	
Average selling price per ton of modified distillers grains	\$	59.66	\$	59.42	
Tons of modified distillers grains sold		121,360		201,133	
Average cost per bushel of grain	\$	3.82	\$	3.46	
Average cost of natural gas (per MmBtu)	\$	3.04	\$	3.33	

The following table summarizes net sales and revenue from One Earth and NuGen, by product group (amounts in thousands):

	<u>Fiscal Year</u>			
Product or Service Category		2019		2018
Ethanol	\$	321,434	\$	368,319
Dried distillers grains		71,755		85,417
Non-food grade corn oil		17,135		20,097
Modified distillers grains		7,240		11,950
Other		136		102
Total	\$	417,700	\$	485,885

Ethanol sales decreased from approximately \$368.3 million in the prior year to approximately \$321.4 million in the current year, primarily a result of a decrease of 50.5 million gallons (17.7%) sold during fiscal year 2019. The volume decrease was partially offset by a \$0.08 increase in the price per gallon sold. Dried distillers grains sales decreased from approximately \$85.4 million in the prior year to approximately \$71.8 million in the current year, primarily a result of a decrease of 79,526 tons (13.2%) sold during fiscal year 2019. Non-food grade corn oil sales decreased from approximately \$20.1 million in the prior year to approximately \$17.1 million in the current year, primarily a result of a 16.6% decrease in pounds sold during fiscal year 2019. Modified distillers grains sales decreased from approximately \$12.0 million in the prior year to approximately \$7.2 million in the current year, primarily a result of a 39.7% decrease in tons sold during fiscal year 2019. The volume decreases discussed above, which relate primarily to operations at NuGen, resulted from weather related logistical delays and diminished local availability of corn which negatively impacted production levels. Because of the uncertainty regarding the economic impact of the COVID-19 virus outbreak and the availability of corn, we do not have an estimate of future periods' sales volume.

Gross profit was approximately \$20.4 million in fiscal year 2019, or 4.9% of net sales and revenue which was approximately \$23.5 million lower compared to approximately \$43.9 million of gross profit in fiscal year 2018 or 9.0% of net sales and revenue. The crush spread for fiscal year 2019 was approximately \$0.05 per gallon of ethanol sold compared to approximately \$0.09 per gallon of ethanol sold during fiscal year 2018. The decrease of approximately \$13.7 million in sales of dried distillers grains compared to the prior year negatively affected gross profit. The decrease of approximately \$4.7 million in sales of modified distillers grains compared to the prior year negatively affected gross profit. In addition, lower corn oil sales negatively impacted gross profit in fiscal year 2019 by approximately \$3.0 million compared to fiscal year 2018. Grain accounted for approximately 78% (\$311.2 million) of our cost of sales during fiscal year 2019 compared to approximately 77% (\$341.1 million) during fiscal year 2018. There are concerns regarding the availability of local corn until the 2020 corn harvest. This could lead to future period corn price increases and/or acceptable supplies of corn may not be sufficiently available. Natural gas accounted for approximately 5% (\$19.6 million) of our cost of sales during fiscal year 2019 consistent with approximately 6% (\$24.7 million) during fiscal year 2018. Real estate taxes were approximately \$4.5 million higher in fiscal year 2019 compared to fiscal year 2018 as a result of disputed assessments being settled, and related taxes refunded to the Company during fiscal year 2018. Given the inherent volatility in ethanol, distillers grains, non-food grade corn oil, grain and natural gas prices, we cannot predict the likelihood that the spread between ethanol, distillers grains, non-food grade corn oil and grain prices in future periods will be consistent with prices in historical periods.

We attempt to match quantities of ethanol, distillers grains and non-food grade corn oil sale contracts with an appropriate quantity of grain purchase contracts over a given period of time when we can obtain an adequate margin resulting from the crush spread inherent in the contracts we have executed. However, the market for future ethanol sales contracts generally lags the spot market with respect to ethanol price. Consequently, we generally execute fixed price contracts for no more than four months into the future at any given time and we may lock in our corn or ethanol price without having a corresponding locked in ethanol or corn price for short durations of time. As a result of the relatively short period of time our fixed price contracts cover, we generally cannot predict the future movements in our realized crush spread for more than four months. We utilize derivative financial instruments, primarily exchange traded commodity future contracts, in conjunction with our grain procurement and commodity marketing activities.

SG&A expenses for fiscal year 2019 were approximately \$16.4 million (3.9% of net sales and revenue) consistent with approximately \$16.2 million (3.3% of net sales and revenue) for fiscal year 2018.

During fiscal years 2019 and 2018, we recognized income of approximately \$1.4 million and approximately \$1.5 million, respectively, from our equity investment in Big River. Our investment in Big River, which has interests in four ethanol production plants, has an effective ownership of ethanol gallons shipped in the trailing twelve months ended January 31, 2020 of approximately 366 million gallons.

Interest and other income was approximately \$3.0 million for fiscal year 2019 compared to approximately \$2.5 million for fiscal year 2018. The income increased as yields on our excess cash improved compared to fiscal year 2018 and excess cash investment balances increased in fiscal year 2019.

Income related to noncontrolling interests was approximately \$4.6 million and approximately \$5.9 million during fiscal years 2019 and 2018, respectively. These amounts represent the other owners' share of the income of NuGen and One Earth.

The benefit for income taxes was approximately \$1.5 million in fiscal year 2019 compared to a provision for income taxes of approximately \$2.3 million in fiscal year 2018. During fiscal years 2019 and 2018, we recognized the tax benefits of research and experimentation credits earned by our ethanol plants. In addition, we recognized tax benefits from reducing the liability for unrecognized tax benefits during fiscal year 2019 as a result of statutes expiring.

Segment profit for fiscal year 2019 was approximately \$5.4 million, a decrease of approximately \$17.9 million from approximately \$23.3 million for fiscal year 2018. The decrease from fiscal year 2018 results is primarily related to lower gross profit levels in fiscal year 2019 compared to fiscal year 2018.

Refined Coal Segment

The refined coal segment includes the consolidated financial results of our refined coal entity and certain administrative expenses. We acquired the refined coal entity during the third quarter of fiscal year 2017. Our refined coal facility is eligible to earn Section 45 production tax credits through November 2021. The operations of the facility are not profitable without such credits. We therefore expect to cease operating our refined coal facility by November 2021.

The refined coal entity sells one product, refined coal. We record sales in the refined coal segment net of the cost of coal as we purchase the coal feedstock from the customer to which refined coal is sold. Sales decreased from approximately \$786,000 in the prior year to approximately \$334,000 in the current year. During fiscal year 2019, operating results have been adversely affected by lower utility plant demand from our only customer. We expect future period sales to vary depending on fluctuations in demand from the site host utility, which generally change based upon weather conditions in the geographic markets the utility serves and competing fuel prices and supplies. Based upon current year operations and projections from the site host utility, we expect lower demand for refined coal in future periods compared to historical results.

Gross loss was approximately \$7.9 million in fiscal year 2019, which was approximately \$5.7 million lower compared to approximately \$13.6 million of gross loss in fiscal year 2018. The decrease in gross loss results primarily from lower refined coal production in fiscal year 2019 compared to fiscal year 2018. We expect future period gross loss to vary in generally the same manner as the sales fluctuations described above. Based on the agreements in place that govern the operations, sales and purchasing activities of the refined coal plant, we expect that the refined coal operation will continue operating at a gross loss and that the ongoing losses will be subsidized by federal production income tax credits.

SG&A expenses were approximately \$(0.1) million and approximately \$1.6 million in fiscal years 2019 and 2018, respectively. The decrease in expense is primarily related to lower commission expense payable to the minority investor in the refined coal entity. The commission expense is associated with the refined coal acquisition.

Income related to noncontrolling interests was approximately \$0.3 million and approximately \$0.7 million during fiscal years 2019 and 2018, respectively. This amount represents the other owner's share of the pre-tax loss of refined coal operations.

The benefit for income taxes was approximately \$10.8 million and approximately \$24.7 million during fiscal years 2019 and 2018, respectively. These amounts include the benefit of Section 45 production tax credits and a benefit related to segment loss before income taxes. The refined coal facility is eligible to earn tax credits through November 2021. However, the amount of credits earned will vary with annual production levels.

As a result of the foregoing, including the benefit of federal tax credits associated with refined coal production and sales, segment profit was approximately \$3.4 million and approximately \$10.1 million for fiscal years 2019 and 2018, respectively.

Corporate and Other

SG&A expenses for fiscal year 2019 were approximately \$3.0 million consistent with approximately \$2.8 million for fiscal year 2018.

Interest and other income was approximately \$1.2 million for fiscal year 2019 versus approximately \$1.0 million for fiscal year 2018. The income increased as yields on our excess cash improved compared to fiscal year 2018.

We do not expect to recover any portion of the noncontrolling interests holder's share of current and prior Future Energy losses; thus, we did not recognize any income or expense related to the noncontrolling interests of Future Energy in fiscal year 2019. In fiscal year 2018, we recognized expense of approximately \$0.7 million related to cumulative losses of Future Energy attributable to the noncontrolling interests.

Corporate and other expenses exceeded interest and other income, for fiscal year 2019 by approximately \$1.4 million, compared to approximately \$1.8 million for fiscal year 2018.

Comparison of Fiscal Years 2018 and 2017

See "Item 7 Management's discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended January 31, 2019.

Liquidity and Capital Resources

Our primary sources of cash have been income from operations. Our primary uses of cash have been capital expenditures at our ethanol plants, stock repurchases and contributions to fund refined coal operating losses.

Outlook – Our cash and short-term investments balance of approximately \$205.7 million at January 31, 2020 includes approximately \$143.4 million held by One Earth and NuGen. We expect that One Earth and NuGen will use a majority of their cash for working capital needs, capital expenditures, general corporate purposes and dividend payments. We expect our equity method investee to limit the payment of dividends based upon working capital needs.

We are investigating various uses of our excess cash. We have a stock buyback program with an authorization level of 349,861 shares at January 31, 2020. We typically repurchase our common stock when our stock price is trading at prices we deem to be a discount to the underlying value of our net assets. We plan to seek and evaluate other various investment opportunities including energy related, carbon dioxide related, agricultural or other ventures we believe fit our investment criteria.

We expect capital expenditures to be in the range of approximately \$10 million to \$15 million in fiscal year 2020 for various projects at our consolidated ethanol plants. However, actual capital expenditures could vary from this range for unexpected expenditures as our plants continue to age. We expect to fund these capital expenditures with available cash at our ethanol plant subsidiaries.

Operating Activities – Net cash provided by operating activities was approximately \$10.3 million for fiscal year 2019 compared to approximately \$47.9 million in fiscal year 2018. During fiscal year 2019, operating cash flow was provided by net income of approximately \$11.6 million and adjustments of approximately \$17.2 million, which consisted of depreciation, amortization of operating lease right-of-use assets, stock based compensation expense, income from equity method investments, interest income from investments, and the deferred income tax provision. Big River paid dividends to REX of approximately \$1.0 million during fiscal year 2019. Accounts receivable increased approximately \$1.6 million, primarily a result of the timing of products shipped and the receipt of customer payments at One Earth and NuGen. Inventory increased approximately \$17.2 million, primarily a result of larger quantities of corn and higher per unit costs at January 31, 2020. Accounts payable increased approximately \$11.4 million, primarily a result of the inventory increase. Accrued expenses and other liabilities decreased approximately \$13.0 million, which was primarily a result of operating lease payments, lower incentive compensation in fiscal year 2019 and lower refined coal acquisition related commissions.

Net cash provided by operating activities was approximately \$47.9 million for fiscal year 2018. During fiscal year 2018, operating cash flow was provided by net income of approximately \$37.5 million and adjustments of approximately \$(0.4) million, which consisted of depreciation, stock based compensation expense, interest income from investments, income from equity method investments, loss on disposal of real estate and property and equipment and the deferred income tax provision. Big River paid dividends to REX of approximately \$4.0 million during fiscal year 2018. Accounts receivable decreased approximately \$1.5 million, primarily a result of the timing of products shipped and the receipt of customer payments at One Earth and NuGen. Inventory decreased approximately \$2.3 million, primarily a result of the timing of finished goods shipments to customers. Prepaid expenses and other assets decreased approximately \$5.2 million, primarily a result of refunds paid to us for refundable real estate taxes. Income taxes refundable increased approximately \$1.1 million, primarily as a result of carrying back general business credits to prior years and claiming refunds of income taxes. Accrued expenses and other liabilities decreased approximately \$1.5 million, primarily a result of lower bonus accruals for fiscal year 2018.

Investing Activities – Net cash used in investing activities was approximately \$14.4 million during fiscal year 2019 compared to approximately \$24.6 million during fiscal year 2018. Capital expenditures in fiscal year 2019 totaled approximately \$3.8 million, the majority of which were various projects at One Earth's and NuGen's ethanol plants. During fiscal year 2019, we used cash of approximately \$26.0 million for purchases of short-term investments and received cash of approximately \$15.0 million related to maturities of these investments as certain of these investments remained outstanding at January 31, 2020. We began investing in highly liquid short-term investments during fiscal year 2018 in order to increase earnings on excess cash.

Net cash used in investing activities was approximately \$24.6 million during fiscal year 2018. Capital expenditures in fiscal year 2018 totaled approximately \$10.8 million, the majority of which was plant expansion capacity projects at One Earth's and NuGen's ethanol plants. During fiscal year 2018, we used cash of approximately \$126.0 million for purchases of short-term investments and received cash of approximately \$112.1 million related to maturities of these investments as one of these investments remained outstanding at January 31, 2019.

Financing Activities — Net cash used in financing activities was approximately \$4.0 million during fiscal year 2019 compared to approximately \$25.8 million for fiscal year 2018. During fiscal year 2019, we used cash of approximately \$4.3 million to purchase shares from and pay dividends to noncontrolling members of the entities that own One Earth's and NuGen's ethanol plants. During fiscal year 2019, we received approximately \$0.3 million in capital contributions from the minority investor in the refined coal entity. We expect to continue to receive these capital contributions in the future as we expect the minority investor to continue funding its proportionate share of refined coal operating losses.

Net cash used in financing activities was approximately \$25.8 million during fiscal year 2018. During fiscal year 2018, we used cash of approximately \$4.5 million to purchase shares from and pay dividends to noncontrolling members. During fiscal year 2018, we received approximately \$0.5 million in capital contributions from the minority investor in the refined coal entity. During fiscal year 2018, we purchased approximately 305,000 shares of our common stock for approximately \$21.9 million in open market transactions.

Based on our forecasts, which are primarily based on estimates of plant production, prices of ethanol, corn, distillers grains, non-food grade corn oil and natural gas as well as other assumptions, management believes that cash flow from operating activities together with working capital will be sufficient to meet One Earth's and NuGen's respective liquidity needs. However, if a material adverse change in the financial position of

One Earth or NuGen should occur, or if actual sales or expenses are substantially different than what has been forecasted (because of the COVID-19 pandemic or other factors), One Earth's and NuGen's liquidity, and ability to fund future operating and capital requirements could be negatively impacted.

We expect to fund future operating losses at our refined coal facility with cash at the parent company level.

Approximately 4.5% of our net assets are restricted pursuant to the terms of various loan agreements of our equity method investment as of January 31, 2020. None of our consolidated subsidiaries or the parent company has restricted net assets at January 31, 2020.

Off Balance Sheet Arrangements

None.

Tabular Disclosure of Contractual Obligations

In the ordinary course of business, we enter into agreements under which we are legally obligated to make future cash payments. These agreements include obligations related to purchasing inventory and leasing rail cars. The following table summarizes by category expected future cash outflows associated with contractual obligations in effect, at January 31, 2020 (amounts in thousands):

	Payment due by period								
			Less						
			than 1		1-3		3-5	ľ	More than
Contractual Obligations	 Total		Year Years		Years	Years			5 Years
Other (a)	\$ 53,125	\$	36,981	\$	8,911	\$	4,016	\$	3,217

(a) Amounts primarily represent payments due for rail car leases, a natural gas pipeline, grain, natural gas and other contracts at One Earth and NuGen. We are not able to determine the likely settlement for forward corn purchase contracts which do not contain a determinable fixed price; accordingly, payments for such contracts have been excluded from the table above. We are not able to determine the likely settlement period for uncertain tax positions, accordingly, approximately \$7.4 million of uncertain tax positions and related interest and penalties have been excluded from the table above.

Seasonality and Quarterly Fluctuations

Our business is directly affected by the supply and demand for ethanol. The demand for ethanol typically increases during the spring and summer months and during holiday travel.

Impact of Inflation

The impact of inflation has not been material to our results of operations for the past three fiscal years.

Critical Accounting Policies

We believe the application of the following accounting policies, which are important to our financial position and results of operations, require significant assumptions, judgments and estimates on the part of management. We base our assumptions, judgments, and estimates on historical experience, current trends and other factors that management believes to be relevant at the time our consolidated financial statements are prepared. On a regular basis, management reviews the accounting policies, assumptions, estimates and judgments to ensure that our financial statements are presented in accordance with generally accepted accounting principles

(GAAP). However, because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates, and such differences could be material. Further, if different assumptions, judgments and estimates had been used, the results could have been different and such differences could be material. For a summary of all of our accounting policies, including the accounting policies discussed below, see Note 1 to the Consolidated Financial Statements.

The impact of the economic downturn resulting from the spread of COVID-19 is unknow at this time. However, it could lead to material impacts to our financial position and results of operations, including, but not limited to, charges from adjustments of the carrying amount of inventory, long-lived asset impairment charges and deferred tax valuation allowances.

Management believes that the following accounting policies are the most critical to aid in fully understanding and evaluating our reported financial results, and they require management's most difficult, subjective or complex judgments, resulting from the need to make estimates about the effect of matters that are inherently uncertain.

Revenue Recognition – For ethanol and by-products segment sales, we recognize sales of ethanol, distillers grains and non-food grade corn oil when obligations under the terms of the respective contracts with customers are satisfied; this occurs with the transfer of control of products, generally upon shipment from the ethanol plant or upon loading of the rail car used to transport the products. For refined coal segment sales, we recognize sales of refined coal when obligations under the term of the contract with its customer are satisfied; this occurs when control of the product transfers to the customer, generally upon the refined coal leaving the plant. Refined coal sales are recorded net of the cost of coal as we purchase the coal feedstock from our customer to which we sell refined coal.

Inventory – Inventories are carried at the lower of cost or net realizable value. Cost for all inventories is determined using the first-in, first-out method. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonable predictable costs of completion, disposal and transportation. Inventory includes direct production costs and certain overhead costs such as depreciation, property taxes and utilities related to producing ethanol and related by-products and refined coal. Inventory is permanently written down for instances when cost exceeds estimated net realizable value; such write-downs are based primarily upon commodity prices as the market value of inventory is often dependent upon changes in commodity prices. We recorded approximately \$1.3 million of inventory write-downs in cost of sales during fiscal year 2019. There were no significant write-down of inventory during fiscal years 2018 or 2017. Fluctuations in the write-down of inventory generally relate to the levels and composition of such inventory at a given point in time and commodity prices.

Financial Instruments — Certain of the forward grain purchase and ethanol, distillers grains and non-food grade corn oil sales contracts are accounted for under the "normal purchases and normal sales" scope exemption of ASC 815, "*Derivatives and Hedging*" ("ASC 815") because these arrangements are for purchases of grain that will be delivered in quantities expected to be used by us and sales of ethanol, distillers grains and non-food grade corn oil that will be produced in quantities expected to be sold by us over a reasonable period of time in the normal course of business. During fiscal years 2019, 2018 and 2017, there were no material settlements of forward contracts that were recorded at fair value.

We use derivative financial instruments (exchange-traded futures contracts) to manage a portion of the risk associated with changes in commodity prices, primarily related to corn and ethanol. We monitor and manage this exposure as part of our overall risk management policy. As such, we seek to reduce the potentially adverse effects that the volatility of these markets may have on our operating results. We may take hedging positions in these commodities as one way to mitigate risk. While we attempt to link our hedging activities to purchase and sales activities, there are situations in which these hedging activities can themselves result in losses.

We do not hold or issue derivative financial instruments for trading or speculative purposes. The changes in fair value of these derivative financial instruments are recognized in current period earnings as we do not use hedge accounting.

Impairment of Long-Lived Assets

We review our long-lived assets, consisting of property and equipment, equity method investments and operating lease right-of-use assets, for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. We assess long-lived assets for impairment by first determining the forecasted, undiscounted cash flows the asset group is expected to generate. If this total is less than the carrying value of the asset, we will then determine the fair value of the asset group. An impairment loss would be recognized in the amount by which the carrying amount of the asset exceeded the fair value of the asset. Significant management judgement is required to determine the fair value of long-lived assets, which includes discounted cash flows. Such estimates could be significantly affected by future changes in market conditions. We recorded no impairment charges in fiscal years 2019, 2018 and 2017.

Income Taxes – Income taxes are recorded based on the current year amounts payable or refundable, as well as the consequences of events that give rise to deferred tax assets and liabilities based on differences in how those events are treated for tax purposes, net of valuation allowances. We base our estimate of deferred tax assets and liabilities on current tax laws and rates and other expectations about future outcomes. Changes in existing regulatory tax laws and rates and future business results may affect the amount of deferred tax liabilities or the valuation of deferred tax assets over time. We have established valuation allowances for certain state net operating loss carryforwards. We determined that it is more likely than not that we will be able to generate sufficient taxable income in future years to allow for the full utilization of the other deferred tax assets other than those reserved. We are projecting that the future operations of One Earth, NuGen and Big River will be profitable over the long term. As we earn federal income tax credits (pursuant to Internal Revenue Code Section 45) based on the amount of refined coal produced and sold, variations in refined coal production and related sales will result in changes in our future effective income tax rate.

New Accounting Pronouncements

For information related to recent accounting pronouncements, see Note 1 of the Notes to the Consolidated Financial Statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to the impact of market fluctuations associated with commodity prices as discussed below.

Commodity Price Risk

We manage a portion of our risk with respect to the volatility of commodity prices inherent in the ethanol industry by using forward purchase and sale contracts. At January 31, 2020, One Earth and NuGen combined had purchase commitments for approximately 12.1 million bushels of corn, the principal raw material for their ethanol plants. One Earth and NuGen expect to take delivery of a majority of the corn by April 2020. At January 31, 2020, One Earth and NuGen combined had purchase commitments for approximately 2.5 million MnBtu of natural gas. They expect to take delivery of a majority of the natural gas by July 2020. At January 31, 2020, One Earth and NuGen had combined sales commitments for approximately 28.6 million gallons of ethanol, 107,000 tons of distillers grains and 16.0 million pounds of non-food grade corn oil. One Earth and NuGen expect to deliver a majority of the ethanol, distillers grains and non-food grade corn oil through March 2020. Our exposures to market risk, which include the impact of our risk management activities, are based on

the estimated effect on pre-tax income starting on January 31, 2020, are as follows (amounts in thousands):

Commodity	Estimated Total Volume for the Next 12 Months (1)	Unit of Measure	tax II a 10%	ease in Pre- ncome From 6 Adverse ge in Price
Ethanol	232,000	Gallons	\$	30,939
Corn	82,857	Bushels	\$	30,320
Distillers Grains	645	Tons	\$	6,926
Non-food grade Corn Oil	68,100	Pounds	\$	1,306
Natural Gas	6,442	MNBTU	\$	1,079

(1) Based upon trailing twelve months ended January 31, 2020. Future period volumes will vary based upon market and plant conditions. Because of the uncertainty regarding the economic impact of the COVID-19 virus outbreak and the availability of corn, we do not have an estimate of future periods' sales volume.

Item 8. Financial Statements and Supplementary Data

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

(Amounts in Thousands)

		Janua	ary 31,	
ASSETS		2020		2019
CURRENT ASSETS:				
Cash and cash equivalents	\$	179,658	\$	188,531
Restricted cash		1,113		281
Short-term investments		26,073		14,975
Accounts receivable		12,969		11,378
Inventory		35,634		18,477
Refundable income taxes		6,029		7,695
Prepaid expenses and other		9,659		9,284
Total current assets		271,135		250,621
Property and equipment - net		163,327		182,521
Operating lease right-of-use assets		16,173		_
Other assets		17,403		6,176
Equity method investments		32,464		32,075
TOTAL ASSETS	\$	500,502	\$	471,393
LIABILITIES AND EQUITY				
CURRENT LIABILITIES:				
Accounts payable – trade (includes \$0.7 million and \$1.9 million with related				
related parties at January 31, 2020 and 2019, respectively)	\$	18,900	\$	7,463
Current operating lease liabilities	•	4,935	•	_
Accrued expenses and other current liabilities (includes \$0.5 million and \$1.6 million		•		
with related parties at January 31, 2020 and 2019, respectively)		7,764		9,546
Total current liabilities		31,599		17,009
LONG TERM LIABILITIES:		·		
Deferred taxes		4,334		4,185
Long-term operating lease liabilities		10,688		4,105
Other long term liabilities		275		4,928
Total long term liabilities		15,297		9,113
COMMITMENTS AND CONTINGENCIES (Note 13)		13,237		3,113
EQUITY:				
REX shareholders' equity:				
Common stock, 45,000 shares authorized, 29,853 shares issued at par		299		299
Paid in capital		148,789		148,273
Retained earnings		586,985		579,558
Treasury stock, 23,561 and 23,580 shares, respectively		(335,066)		(335,193)
Total REX shareholders' equity	-	401,007		392,937
Noncontrolling interests		52,599		52,334
Total equity		453,606		445,271
TOTAL LIABILITIES AND EQUITY	\$	500,502	\$	471,393
	Ψ	500,502	Ψ	17 1,000

See notes to consolidated financial statements.

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS (Amounts in Thousands, Except Per Share Amounts)

	Years Ended January 31,					
		2020		2019		2018
Net sales and revenue	\$	418,034	\$	486,671	\$	452,586
Cost of sales (includes \$171.5 million, \$176.8 million and \$154.5 million with related parties for the years ended January 31, 2020, 2019 and						
2018, respectively)		405,549		456,456		408,425
Gross profit		12,485		30,215		44,161
Selling, general and administrative expenses (includes \$(0.7) million, \$0.8 million and \$1.8 million with related parties for the years ended						
January 31, 2020 2019, and 2018, respectively)		(19,258)		(20,551)		(24,060)
Equity in income of unconsolidated affiliates		1,392		1,536		3,232
Interest and other income, net		4,212		3,388		2,060
(Loss) income before income taxes		(1,169)		14,588		25,393
Benefit for income taxes		12,813		22,922		19,519
Net income		11,644		37,510		44,912
Net income attributable to noncontrolling interests		(4,217)		(5,865)		(5,206)
Net income attributable to REX common shareholders	\$	7,427	\$	31,645	\$	39,706
Weighted average shares outstanding – basic and diluted		6,318		6,440		6,596
Basic and diluted net income per share attributable to REX common shareholders	\$	1.18	\$	4.91	\$	6.02

See notes to consolidated financial statements.

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY FOR THE YEARS ENDED JANUARY 31, 2020, 2019 AND 2018

(Amounts in Thousands)

				REX Sha	reholders											
	Common S	Shares Is	sued	Tre	asury							_	m . 1			
	Shares		Amount	Shares	Amor	unt	 Paid-in Capital		Earnings				Noncontrolling Interest		Total Equity	
Balance at January 31, 2017	29,853	\$	299	23,292	\$ (313	3,838)	\$ 145,767	\$	508,207	\$	47,839	\$	388,27			
Net income									39,706		5,206		44,91			
Capital contributions											918		91			
Noncontrolling interests distribution and other											(3,529)		(3,52			
Issuance of equity awards, stock based compensation expense and related tax effects				<u>(5</u>)		195	 1,156	_				_	1,35			
Balance at January 31, 2018	29,853		299	23,287	(313	3,643)	146,923		547,913		50,434		431,92			
Net income									31,645		5,865		37,5			
Capital contributions											524		52			
Treasury stock acquired				305	(21	,855)							(21,85			
Noncontrolling interests distribution and other											(4,489)		(4,48			
Issuance of equity awards, stock based compensation expense and related tax effects				(12)		305	1,350						1,65			
Balance at January 31, 2019	29,853		299	23,580	(335	5,193)	148,273		579,558		52,334		445,27			
Net income									7,427		4,217		11,6			
Capital contributions											312		3			
Noncontrolling interests distribution and other Issuance of equity awards and stock based compensation expense	_		_	(19)		127	516		_		(4,264)		(4,2)			
esperior		_		(13)		14/	510	_		_		_				
Balance at January 31, 2020	29,853	\$	299	23,561	\$ (335	5,066)	\$ 148,789	\$	586,985	\$	52,599	\$	453,60			
ee notes to consolidated financial statements.																
				43												

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in Thousands)

	Years Ended January 31,							
		2020		2019		201		
CASH FLOWS FROM OPERATING ACTIVITIES:								
Net income	\$	11,644	\$	37,510	\$	44,912		
Adjustments to reconcile net income to net cash provided by operating activities:								
Depreciation		23,007		24,828		21,462		
Amortization of operating lease right-of-use assets		6,304		_		_		
Stock based compensation expense		397		669		1,641		
Income from equity method investments		(1,392)		(1,536)		(3,232		
Dividends received from equity method investments		1,003		4,010		6,516		
Interest income from investments		(73)		(1,077)		_		
Loss on sale of investment		_		_		13		
Loss on disposal of real estate and property and equipment		_		104		192		
Deferred income tax		(11,070)		(23,364)		(18,605		
Changes in assets and liabilities:								
Accounts receivable		(1,591)		1,535		(1,089		
Inventory		(17,157)		2,278		(3,649		
Prepaid expenses and other assets		(752)		5,217		(1,170		
Income taxes refundable		1,666		(1,083)		(5,542		
Accounts payable-trade		11,400		339		(1,705		
Accrued expenses and other liabilities		(13,043)		(1,499)		1,225		
Net cash provided by operating activities		10,343		47,931		40,969		
		10,545		47,331	-	40,30		
CASH FLOWS FROM INVESTING ACTIVITIES:								
Capital expenditures		(3,776)		(10,775)		(24,01)		
Purchase of short-term investment		(26,025)		(125,989)		_		
Sale of short-term investments		15,000		112,091		_		
Acquisition of business, net of cash acquired		_		_		(12,049		
Proceeds from sale of investment		_		_		64		
Proceeds from sale of real estate and property and equipment		_		_		104		
Repayment of note receivable		369		27		20		
Restricted investments and deposits				5		150		
Net cash used in investing activities		(14,432)		(24,641)	_	(35,72)		
CASH FLOWS FROM FINANCING ACTIVITIES:								
Payments to noncontrolling interests holders		(4,264)		(4,489)		(3,52		
Capital contributions from minority investor		312		524		918		
Treasury stock acquired		_		(21,855)		_		
Net cash used in financing activities		(3,952)		(25,820)		(2,61		
		(3,932)		(23,020)		(2,01		
NET (DECREASE) INCREASE IN CASH, CASH EQUIVALENTS AND		(0.044)		(0.500)				
RESTRICTED CASH		(8,041)		(2,530)		2,636		
CASH, CASH EQUIVALENTS AND RESTRICTED CASH-Beginning of year		188,812		191,342		188,700		
CASH, CASH EQUIVALENTS AND RESTRICTED CASH-End of year	\$	180,771	\$	188,812	\$	191,34		
Non cash financing activities-Equity awards issued	\$	487	\$	1,473	\$	1,195		
Non cash financing activities-Equity awards accrued	\$	241	\$	487	\$	1,48		
Non cash investing activities-Accrued capital expenditures	\$	37	\$	_	\$	1,14		
initial right-of-use assets and liabilities recorded upon adoption of ASC 842	\$	20,918	\$	_	\$			
Right-of-use assets acquired and liabilities incurred upon lease execution	\$	432	\$	_	\$	_		
Reconciliation of total cash, cash equivalents and restricted cash:								
Cash and cash equivalents	\$	179,658	\$	188,531	\$	190,98		
Restricted cash		1,113		281		354		
Total cash, cash equivalents and restricted cash	\$	180,771	\$	188,812	\$	191,342		
ee notes to consolidated financial statements.	Ф	100,//1	Þ	100,012	J.	191,34		

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation – The accompanying financial statements consolidate the operating results and financial position of REX American Resources Corporation and its wholly-owned and majority owned subsidiaries (the "Company" or "REX"). All intercompany balances and transactions have been eliminated. As of January 31, 2020, the Company owns interests in five operating entities – four are consolidated and one is accounted for using the equity method of accounting. The results of One Earth are included on a delayed basis of one month lag as One Earth has a fiscal year end of December 31. The other consolidated entities have the same fiscal year end as the parent company.

Fiscal Year – All references in these consolidated financial statements to a particular fiscal year are to the Company's fiscal year ended January 31. For example, "fiscal year 2019" means the period February 1, 2019 to January 31, 2020. The Company refers to its fiscal year by reference to the year immediately preceding the January 31 fiscal year end date.

Segments – In fiscal year 2017, the Company began reporting the results of its refined coal operation as a new segment as a result of the August 10, 2017 acquisition of an entity that operates a refined coal facility (see Note 3). Prior to the acquisition, the Company had one reportable segment, ethanol. Beginning with the third quarter of fiscal year 2017, the Company has two reportable segments: i) ethanol and byproducts and ii) refined coal. Within the ethanol and byproducts segment, the Company has equity investments in three ethanol limited liability companies, two of which are majority ownership interests. Within the refined coal segment, the Company has a majority equity interest in one refined coal limited liability company.

In applying the criteria set forth in ASC 280, the Company determined that based on the nature of the products and production process and the expected financial results, the Company's operations at its ethanol plants are aggregated into one reporting segment.

Use of Estimates – The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash Equivalents – Cash equivalents are principally short-term investments with original maturities of three months or less. The carrying amount of cash equivalents approximates fair value.

Basis of Presentation – Interest and other income, net includes the following (amounts in thousands):

	Fiscal Year					
	2019		2018			2017
Interest income	\$	4,120	\$	3,514	\$	1,556
Grant income		_		_		691
Loss on sale of investment		_		_		(13)
Loss on disposal of real estate and property and equipment,						
net		_		(104)		(192)
Other		92		(22)		18
Total	\$	4,212	\$	3,388	\$	2,060

Concentrations of Risk – The Company maintains cash and cash equivalents in accounts with financial institutions which exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company does not believe there is significant credit risk related to its cash and cash equivalents. Eight (fiscal year 2019) and six (fiscal years 2018 and 2017) customers accounted for approximately 85%, 85% and 87% of the Company's net sales and revenue during fiscal years 2019, 2018 and 2017, respectively. At January 31, 2020 and 2019, these customers represented approximately 88% and 80%, respectively, of the Company's accounts receivable balance.

Inventory – Inventories are carried at the lower of cost or net realizable value. Cost for all inventories is determined using the first-in, first-out method. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonable predictable costs of completion, disposal and transportation. Inventory includes direct production costs and certain overhead costs such as depreciation, property taxes and utilities related to producing ethanol and related by-products and refined coal. Inventory is permanently written down for instances when cost exceeds estimated net realizable value; such write-downs are based primarily upon commodity prices as the market value of inventory is often dependent upon changes in commodity prices. The company recorded approximately \$1.3 million of inventory write-downs in cost of sales during fiscal year 2019. There were no significant write-down of inventory during fiscal years 2018 or 2017. Fluctuations in the write-down of inventory generally relate to the levels and composition of such inventory at a given point in time and commodity prices. The components of inventory are as follows (amounts in thousands):

	January 31,						
	2020			2019			
Ethanol and other finished goods	\$	10,864	\$	5,767			
Work in process		3,258		3,094			
Grain and other raw materials		21,512		9,616			
		<u> </u>		· · · · · · · · · · · · · · · · · · ·			
Total	\$	35,634	\$	18,477			

Property and Equipment – Property and equipment is recorded at cost or the fair value on the date of acquisition (for property and equipment acquired in a business combination). Depreciation is computed using the straight-line method. Estimated useful lives are 5 to 40 years for buildings and improvements, and 2 to 20 years for fixtures and equipment. The components of property and equipment are as follows (amounts in thousands):

	January 31,						
	2020	2019					
Land and improvements	\$ 21,957	\$ 21,469					
Buildings and improvements	23,643	23,608					
Machinery, equipment and fixtures	300,972	297,807					
Construction in progress	193	708					
	346,765	343,592					
Less: accumulated depreciation	(183,438)	(161,071)					
Total	\$ 163,327	\$ 182,521					

In accordance with ASC 360-05 "*Impairment or Disposal of Long-Lived Assets*", the carrying value of long-lived assets is assessed for recoverability by management when changes in circumstances indicate that the carrying amount may not be recoverable.

Impairment of Long-Lived Assets

The Company reviews its long-lived assets, consisting of property and equipment, equity method investments and operating lease right-of-use assets, for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. The Company assesses long-lived assets for impairment by first determining the forecasted, undiscounted cash flows the asset group is expected to generate. If this total is less than the carrying value of the asset, the Company will then determine the fair value of the asset group. An impairment loss would be recognized in the amount by which the carrying amount of the asset exceeded the fair value of the asset. Significant management judgement is required to determine the fair value of long-lived assets, which includes discounted cash flows. Such estimates could be significantly affected by future changes in market conditions. The Company recorded no impairment charges in fiscal years 2019, 2018 and 2017.

Depreciation expense was approximately \$23,007,000, \$24,828,000 and \$21,462,000 in fiscal years 2019, 2018 and 2017, respectively.

Investments – The method of accounting applied to long-term investments, whether consolidated, equity or cost, involves an evaluation of the significant terms of each investment that explicitly grant or suggest evidence of control or influence over the operations of the investee and also includes the identification of any variable interests in which the Company is the primary beneficiary. The Company accounts for investments in limited liability companies in which it may have a less than 20% ownership interest, using the equity method of accounting when the factors discussed in ASC 323 "Investments-Equity Method and Joint Ventures" are met. The excess of the carrying value over the underlying equity in the net assets of equity method investees is allocated to specific assets and liabilities. Investments in businesses that the Company does not control but for which it has the ability to exercise significant influence over operating and financial matters are accounted for using the equity method. The Company accounts for its investment in Big River using the equity method of accounting and includes the results of Big River on a delayed basis of one month as it has a fiscal year end of December 31.

The Company periodically evaluates its investments for impairment due to declines in market value considered to be other than temporary. Such impairment evaluations include, in addition to persistent, declining market prices, general economic and company-specific evaluations. If the Company determines that a decline in market value is other than temporary, then a charge to earnings is recorded in the Consolidated Statements of Operations and a new cost basis in the investment is established.

Short-term investments, consisting of U.S. government obligations and certificates of deposit, are considered held-to-maturity, and, therefore are carried at amortized historical cost.

Revenue Recognition – For ethanol and by-products segment sales, the Company recognizes sales of ethanol, distillers grains and non-food grade corn oil when obligations under the terms of the respective contracts with customers are satisfied; this occurs with the transfer of control of products, generally upon shipment from the ethanol plant or upon loading of the rail car used to transport the products. For refined coal segment sales, the Company recognizes sales of refined coal when obligations under the term of the contract with its customer are satisfied; this occurs when control of the product transfers to the customer, generally upon the coal leaving the refined coal plant. Refined coal sales are recorded net of the cost of coal as the Company purchases the coal feedstock from the customer to which refined coal is sold (after processing). Sales, value add and other taxes the Company collects concurrent with revenue producing activities are excluded from net sales and revenue.

The majority of the Company's sales have payment terms ranging from 5 to 10 days after transfer of control. The Company has determined that sales contracts do not generally include a significant financing component. The Company has not historically, and does not intend to, enter into sales contracts in which payment is due from a customer prior to transferring product to the customer. Thus, the Company does not record unearned revenue.

See Note 14 for disaggregation of net sales and revenue by operating segment and by product.

Cost of Sales – Cost of sales includes depreciation, costs of raw materials, inbound freight charges, purchasing and receiving costs, inspection costs, other distribution expenses, warehousing costs, plant management, certain compensation costs and general facility overhead charges.

SG&A Expenses – The Company includes non-production related costs such as professional fees, outbound freight charges, selling charges and certain payroll in SG&A expenses.

Financial Instruments – Certain of the forward grain purchase and ethanol, distillers grains and non-food grade corn oil sale contracts are accounted for under the "normal purchases and normal sales" scope exemption of ASC 815, because these arrangements are for purchases of grain that will be delivered in quantities expected to be used and sales of ethanol, distillers grains and non-food grade corn oil that will be produced in quantities expected to be sold by us over a reasonable period of time in the normal course of business. During the years ended January 31, 2020, 2019 and 2018 there were no material settlements of forward contracts that were recorded at fair value. The company recorded a liability of \$230,000 and \$21,000 at January 31, 2020 and January 31, 2019, respectively associated with contracts not accounted for under the "normal purchases and normal sales" scope exemption of ASC 815.

The Company uses derivative financial instruments (exchange-traded futures contracts) to manage a portion of the risk associated with changes in commodity prices, primarily related to corn and ethanol. The Company monitors and manages this exposure as part of its overall risk management policy. As such, the Company seeks to reduce the potentially adverse effects that the volatility of these markets may have on its operating results. The Company may take hedging positions in these commodities as one way to mitigate risk. While the Company attempts to link its hedging activities to purchase and sale activities, there are situations in which these hedging activities can themselves result in losses. The Company does not hold or issue derivative financial instruments for trading or speculative purposes. The changes in fair value of these derivative financial instruments are recognized in current period earnings as the Company does not use hedge accounting.

Stock Compensation — The Company has a stock-based compensation plan, approved by its shareholders, which reserves a total of 550,000 shares of common stock for issuance pursuant to its terms. The plan provides for the granting of shares of stock, including options to purchase shares of common stock, stock appreciation rights tied to the value of common stock, restricted stock, and restricted stock unit awards to eligible employees, non-employee directors and consultants. The Company measures share-based compensation grants at fair value on the grant date, adjusted for estimated forfeitures. The Company records noncash compensation expense related to equity and liability awards in its consolidated financial statements over the requisite service period on a straight-line basis. See Note 10 for a further discussion of restricted stock.

Income Taxes — The Company provides for deferred tax liabilities and assets for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. The Company provides for a valuation allowance if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company's annual effective tax rate includes the impact of its refined coal operation and the expected federal income tax credits to be earned and the impact of research and experimentation credits. In addition, for fiscal year 2017, the Company's annual effective tax rate includes a benefit related to remeasuring deferred tax liabilities at a federal income tax rate of 21% compared to 35% in historical periods, a result of the Tax Act, which reduced the federal income tax rate on corporations from 35% to 21%.

Comprehensive Income – The Company has no components of other comprehensive income, and therefore, comprehensive income equals net income.

New Accounting Pronouncements – Effective February 1, 2019, the Company adopted the amended guidance in ASC Topic 842 "Leases" and all related amendments ("ASC 842"), which requires virtually all leases be recognized by lessees on their balance sheet as right-of-use assets and corresponding lease liabilities. The adoption of ASC 842 had a material impact on the Company's Consolidated Balance Sheet as total assets and total liabilities increased by approximately \$20.9 million upon adoption. The adoption of ASC 842 did not have a material impact on the Company's Consolidated Statement of Operations for fiscal year 2019. See Note 7 for a further discussion of the Company's adoption of this amended guidance.

In August 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2018-13, "Changes to Disclosure Requirements for Fair Value Measurements", which improves the effectiveness of recurring and non-recurring fair value measurements disclosures. This standard removes, modifies and adds certain disclosure requirements and is effective for the Company beginning February 1, 2020.

2. INVESTMENTS

The Company's equity method investment in Big River is accounted for under ASC 323. The following table summarizes the investment (amounts in thousands):

	January 31, <u>2020</u>	January 31, <u>2019</u>
Carrying amount	\$ 32,464	\$ 32,075
Ownership percentage	10.3%	10.3%

The Company invested \$20.0 million in Big River which is a holding company for several entities. Big River, through its various entities (both wholly and partially owned), operates four ethanol manufacturing facilities, that combined shipped approximately 424.6 million gallons of ethanol in the twelve months ended January 31, 2020. The Company recorded income of approximately \$1.4 million, \$1.5 million and \$3.2 million as its share of earnings from Big River during fiscal years 2019, 2018 and 2017, respectively. The Company received dividends of approximately \$1.0 million, \$4.0 million and \$6.5 million from Big River during fiscal years 2019, 2018 and 2017, respectively. At January 31, 2020, the carrying value of the investment in Big River is approximately \$32.5 million; the amount of underlying equity in the net assets of Big River is approximately \$27.7 million. Summarized financial information for the Company's equity method investee as of and for its fiscal year end is presented in the following tables (amounts in thousands):

	December 31,					
	2019			2018		
Current assets	\$	146,494	\$	117,796		
Non current assets		211,235		241,382		
Total assets	\$	357,729	\$	359,178		
Current liabilities	\$	55,552	\$	50,172		
Long-term liabilities		_		701		
Total liabilities	\$	55,552	\$	50,873		
Noncontrolling interests	\$	33,966	\$	34,149		

		Years Ended December 31,							
	2019		2018			2017			
Net sales and revenue	\$	823,718	\$	802,523	\$	817,112			
Gross profit	\$	30,774	\$	33,782	\$	60,259			
Income from continuing operations	\$	13,502	\$	14,893	\$	32,243			
Net income	\$	13,502	\$	14,893	\$	32,243			

Big River has debt agreements that limit and restrict amounts the entity can pay in the form of dividends or advances to owners. The restricted net assets of Big River at January 31, 2020 are approximately \$173.7 million; the Company's proportionate share of restricted net assets of Big River is approximately \$17.9 million.

At January 31, 2020, the Company owned certificates of deposit that had an amortized cost, or carrying value, of approximately \$26,073,000. The contractual maturity of these investments was less than one year. The yield to maturity rate was approximately 1.8%. Unrealized gains or losses were insignificant.

At January 31, 2019, the Company owned a United States Treasury Bill that had an amortized cost, or carrying value, of approximately \$14,975,000. The contractual maturity of this investment was less than one year. The yield to maturity rate was approximately 2.3%. Unrealized gains or losses were insignificant.

3. BUSINESS COMBINATIONS

On August 10, 2017, the Company, through a 95.35% owned subsidiary, purchased the entire ownership interest of an entity that owns a refined coal facility. The Company began operating its refined coal facility immediately after the acquisition. The Company expects that the refined coal operating results will be subsidized by federal production tax credits through November 2021, subject to meeting qualified emissions reductions and other requirements as governed by Section 45 of the Internal Revenue Code.

The results of the Company's refined coal operations (approximately \$1.6 million of net sales and revenue and approximately \$19.2 million of net income attributable to REX common shareholders, including the income tax benefit of estimated Section 45 credits to be earned) have been included in the consolidated financial statements subsequent to the acquisition date and are included in the Company's refined coal segment. Pro forma net sales and revenue and net income attributable to REX common shareholders, had the acquisition occurred on February 1, 2017 would have been \$452.6 million and \$38.9 million, respectively for the year ended January 31, 2018.

The purchase price was \$12,049,000, which was paid in cash. The acquisition was recorded by allocating the total purchase price to the assets acquired, based on their estimated fair values at the acquisition date. The income approach was used to determine the fair values of assets acquired. The following table summarizes the estimated fair values of the assets acquired at the acquisition date (amounts in thousands):

Inventory	\$ 49
Property, plant and equipment	12,000
Total assets acquired and purchase price	\$ 12,049

Transaction costs totaled approximately \$2.5 million during fiscal year 2017 and are included in SG&A expenses in the Consolidated Statement of Operations.

4. FAIR VALUE

The Company applies ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820") which defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The Company determines the fair market values of its financial instruments based on the fair value hierarchy established by ASC 820, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair values which are provided below. The Company carries certain cash equivalents, investments and derivative financial instruments at fair value.

Level 1 - Quoted prices in active markets for identical assets or liabilities. Level 1 assets and liabilities include debt and equity securities and derivative contracts that are traded in an active exchange market, as well as certain U.S. Treasury securities that are highly liquid and are actively traded in over-the-counter markets.

Level 2 – Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally or corroborated by observable market data.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methods, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation. Unobservable inputs are developed based on the best information available, which may include the Company's own data.

The fair values of derivative assets and liabilities traded in the over-the-counter market are determined using quantitative models that require the use of multiple market inputs including interest rates, prices and indices to generate pricing and volatility factors, which are used to value the position. The predominance of market inputs are actively quoted and can be validated through external sources, including brokers, market transactions and third-party pricing services. Estimation risk is greater for derivative asset and liability positions that are either option-based or have longer maturity dates where observable market inputs are less readily available or are unobservable, in which case interest rate, price or index scenarios are extrapolated in order to determine the fair value. The fair values of derivative assets and liabilities include adjustments for market liquidity, counterparty credit quality, the Company's own credit standing and other specific factors, where appropriate. The fair values of property and equipment are determined by using various models that discount future expected cash flows.

To ensure the prudent application of estimates and management judgment in determining the fair value of derivative assets and liabilities and property and equipment, various processes and controls have been adopted, which include: (i) model validation that requires a review and approval for pricing, financial statement fair value determination and risk quantification; and (ii) periodic review and substantiation of profit and loss reporting for all derivative instruments. Financial assets and liabilities measured at fair value at January 31, 2020 on a recurring basis are summarized below (amounts in thousands):

I.	evel 1	L	evel 2	ī	evel 3]	Fair Value
\$	_	\$	352	\$	_	\$	352
	_		_		341		341
\$	_	\$	352	\$	341	\$	693
\$		\$	230	\$		\$	230
	\$ \$ \$	Level 1 \$	Level 1 L	\$ — \$ 352 — — — \$ — \$ 352	\$ — \$ 352 \$ — — — — \$ — \$ 352 \$	\$ — \$ 352 \$ — — — — 341 \$ — \$ 352 \$ 341	Level 1 Level 2 Level 3 V \$ — \$ \$ — — — 341 \$ — \$ 341

Financial assets and liabilities measured at fair value at January 31, 2019 on a recurring basis are summarized below (amounts in thousands):

				To	otal Fair
	Level 1	Level 2	Level 3		Value
Commodity futures (1)	\$ _	\$ 44	\$ _	\$	44
Investment in cooperative (2)	_	_	333		333
Total assets	\$ 	\$ 44	\$ 333	\$	377
Forward purchase contracts liability (3)	\$ 	\$ 22	\$ 	\$	22

- (1) The commodity futures asset is included in "Prepaid expenses and other" on the accompanying Consolidated Balance Sheets.
- (2) The investment in cooperative is included in "Other assets" on the accompanying Consolidated Balance Sheets.
- (3) The forward purchase contracts liability is included in "Accrued expenses and other current liabilities" on the accompanying Consolidated Balance Sheets.

The Company determined the fair value of the investment in cooperative by using a discounted cash flow analysis on the expected cash flows. Inputs used in the analysis include the face value of the allocated equity amount, the projected term for repayment based upon a historical trend, and a risk adjusted discount rate based on the expected compensation participants would demand because of the uncertainty of the future cash flows. The inherent risk and uncertainty associated with unobservable inputs could have a significant effect on the actual fair value of the investment.

No other financial instruments were elected to be measured at fair value in accordance with ASC 470-20-25-21.

There were no assets measured at fair value at January 31, 2020 and 2019 on a non-recurring basis. As discussed in Note 3, the Company estimated the fair values of refined coal assets acquired using the income approach. This estimated fair value is a level 3 measurement.

5. OTHER ASSETS

The components of other noncurrent assets are as follows (amounts in thousands):

	Janua	January 31,				
	2020	2019				
Deferred taxes Other	\$ 17,061 342	\$ 5,843 333				
Total	\$ 17,403	\$ 6,176				

6. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

The components of accrued expenses and other current liabilities at January 31, 2020 and 2019 are as follows (amounts in thousands):

	January 31,			
	2020		2019	
Accrued payroll and related items	\$	1,152	\$	2,041
Accrued utility charges		2,398		2,924
Accrued transportation related items		1,500		1,567
Accrued real estate taxes		1,755		1,680
Accrued income taxes		68		71
Other		891	_	1,263
Total	\$	7,764	\$	9,546

7. LEASES

The Company used the optional transition method in adopting ASC 842, which resulted in applying ASC 842 at the date of adoption (February 1, 2019). Thus, comparative information has not been restated and continues to be reported under accounting standards in effect for those periods.

ASC 842 provides for three practical expedients, which the Company elected as a package. Pursuant to this package, the Company did not reassess: i) whether any expired or existing contracts are or contain leases; ii) the lease classification for any expired or existing leases that were previously classified as operating leases; or iii) the initial direct costs for any existing leases.

The Company elected the practical expedient, available pursuant to ASC 842, for lessees to include both lease and non-lease components as a single component and account for it as a lease. In general, certain maintenance costs are the responsibility of the Company under its railcar leases. These maintenance costs are a non-lease component which the Company elected to combine with rental payments and account for the total amount as operating lease expense.

At January 31, 2020, the Company has lease agreements, as lessee, for railcars. All the leases are accounted for as operating leases. The lease agreements do not contain a specified implicit interest rate; therefore, the Company's estimated incremental borrowing rate was used to determine the present value of future minimum lease payments. The exercise of any lease renewal is at the Company's sole discretion. The lease term for all the Company's leases includes the noncancelable period of the lease and any periods covered by renewal options that the Company is reasonably certain to exercise. Certain leases include rent escalations pre-set in the agreements, which are factored into the lease payment stream. For fiscal year 2019, the components of lease expense, classified as SG&A expenses on the Consolidated Statement of Operations are as follows (amounts in thousands):

Operating lease expense	\$ 6,526
Variable lease expense	556
Total lease expense	\$ 7,082

The following table is a summary of future minimum rentals on such leases at January 31, 2020 (amounts in thousands):

Years Ended January 31,	Minimum <u>Rentals</u>
2021	\$ 5,668
2022	4,958
2023	3,251
2024	2,085
2025	1,228
Thereafter	29
Total	 17,219
Less: present value discount	 1,596
Operating lease liabilities	\$ 15,623

At January 31, 2020, the weighted average remaining lease term is 3.5 years and the weighted average discount rate is 5.46% for the above leases.

At January 31, 2019 the Company had operating lease agreements (pursuant to ASC 840, "*Leases*"), as lessee for railcars and other equipment. At January 31, 2019, future minimum annual rentals on such leases were as follows (amounts in thousands):

Years Ended January 31,	Minimum <u>Rentals</u>
2020	\$ 6,767
2021	5,487
2022	4,791
2023	3,208
2024	2,041
Thereafter	1,221
Total	\$ 23,515

8. COMMON STOCK

During fiscal years 2019 and 2017, the Company did not purchase any of its common stock. During fiscal year 2018, the Company purchased 305,473 shares of its common stock for approximately \$21,855,000. At January 31, 2020, the Company had prior authorization by its Board of Directors to purchase, in open market transactions, an additional 349,861 shares of its common stock. Information regarding the Company's common stock is as follows (amounts in thousands):

	Janua	ary 31,
	2020	2019
Authorized shares	45,000	45,000
Issued shares	29,853	29,853
Outstanding shares	6,292	6,274

9. DERIVATIVE FINANCIAL INSTRUMENTS

The Company is exposed to various market risks, including changes in commodity prices (raw materials and finished goods). To manage risks associated with the volatility of these natural business exposures, the Company enters into commodity agreements and forward purchase (corn) and sale (ethanol, distillers grains and non-food grade corn oil) contracts. The Company does not purchase or sell derivative financial instruments for trading or speculative purposes. The Company does not purchase or sell derivative financial instruments for which a lack of marketplace quotations would require the use of fair value estimation techniques. The changes in fair value of these derivative financial instruments are recognized in current period earnings as the Company does not use hedge accounting.

The following table provides information about the fair values of the Company's derivative financial instruments and the line items on the Consolidated Balance Sheets in which the fair values are reflected (in thousands):

		Asset Derivatives Fair Value at January 31,			Liability Derivative Fair Value at January 31,			
	2	2020	2	2019		2020	2	2019
Commodity futures (1)	\$	352	\$	44	\$	_	\$	_
Forward purchase contracts (2)	\$	_	\$	_	\$	230	\$	22

- (1) Commodity futures assets are included in prepaid expenses and other. These contracts are short/sell positions for approximately 3.7 million bushels of corn and long/buy positions for approximately 2.2 million bushels of corn at January 31, 2020. These contracts are short/sell positions for approximately 2.0 million bushels of corn at January 31, 2019.
- (2) Forward purchase contracts liabilities are included in accrued expenses and other current liabilities while forward purchase contracts assets are included in prepaid expenses and other. These contracts are for purchases of approximately 1.6 million bushels of corn at January 31, 2020 and 1.3 million bushels of corn at January 31, 2019.

As of January 31, 2020, and 2019, all of the derivative financial instruments held by the Company were subject to enforceable master netting arrangements. The Company's accounting policy is to offset positions owed or owing with the same counterparty. As of January 31, 2020 and 2019, the gross positions of the enforceable master netting agreements are not significantly different from the net positions presented in the table above. Depending on the amount of an unrealized loss on a derivative contract held by the Company, the counterparty may require collateral to secure the Company's derivative contract position. As of January 31, 2020, the Company was required to maintain collateral with the counterparty in the amount of approximately \$1,113,000 to secure the Company's derivative liability position. See Note 4 which contains fair value information related to derivative financial instruments.

The Company recognized gains (included in cost of sales) on derivative financial instruments of approximately \$2,201,000, \$2,698,000 and \$1,317,000 in fiscal years 2019, 2018 and 2017, respectively.

10. EMPLOYEE BENEFITS

The Company maintains the REX 2015 Incentive Plan, approved by its shareholders, which reserves a total of 550,000 shares of common stock for issuance pursuant to its terms. The plan provides for the granting of shares of stock, including options to purchase shares of common stock, stock appreciation rights tied to the value of common stock, restricted stock, and restricted stock unit awards to eligible employees, non-employee directors and consultants. The Company measures share-based compensation grants at fair value on the grant date, adjusted for estimated forfeitures. The Company records noncash compensation expense related to liability and equity awards in its consolidated financial statements over the requisite service period on a straight-line basis. At January 31, 2020, 479,988 shares remain available for issuance under the Plan. As a component of their compensation, restricted stock has been granted to directors at the market price of REX common stock on the date of the grant. In addition, one third of executives' incentive compensation is payable by an award of restricted stock based on the then market price of REX common stock. The Company's board of directors has determined that the grant date will be June 15th, or the next business day, for all grants of restricted stock.

At January 31, 2020 and 2019, unrecognized compensation cost related to nonvested restricted stock was approximately \$220,000 and \$200,000, respectively. The following table summarizes non-vested restricted stock award activity for fiscal years 2019, 2018 and 2017:

			2019	
	Non-Vested Shares		Weighted verage Grant ate Fair Value (000's)	Weighted Average Remaining VestingTerm (in years)
Non-Vested at January			(1111)	
31, 2019	38,036	\$	2,935	2
Granted	9,442		662	
Forfeited	_		_	
Vested	18,902		1,404	
Non-Vested at January 31, 2020	28,576	\$	2,193	2

			2018	
	Non-Vested		Weighted Average Grant Date Fair Value (000's)	Weighted Average Remaining VestingTerm (in years)
Non-Vested at January	Shares	_	(000 3)	(iii yeurs)
31, 2018	29,415	\$	2,275	2
Granted	21,744		1,623	
Forfeited	<u> </u>		_	
Vested	13,123	_	963	
Non-Vested at January 31, 2019	38,036	\$	2,935	2

			2017	
	Non-Vested Shares		Weighted Average Grant Date Fair Value (000's)	Weighted Remaining Vesting Vesting Term (in years)
Non-Vested at January				
31, 2017	23,350	\$	1,386	2
Granted	14,156		1,370	
Forfeited	_		_	
Vested	8,091	_	481	
Non-Vested at January 31, 2018	29,415	\$	2,275	2

The above tables include 24,219, 34,148 and 24,711 non-vested shares at January 31, 2020, 2019 and 2018, respectively, which are included in the number of weighted average shares outstanding used to determine basic and diluted earnings per share attributable to REX common shareholders. Such shares are treated, for accounting purposes, as being fully vested at the grant date as they were granted to officers who were retirement eligible at the time of grant.

11. COMMITMENTS

One Earth and NuGen have combined forward purchase contracts for approximately 12.1 million bushels of corn, the principal raw material for their ethanol plants. They expect to take delivery of a majority of the corn through April 2020.

One Earth and NuGen have combined forward purchase contracts for approximately 2,500,000 MnBtu (million british thermal units) of natural gas. They expect to take delivery of a majority of the natural gas through July 2020.

One Earth and NuGen have combined sales commitments for approximately 28.6 million gallons of ethanol, 107,000 tons of distillers grains and 16.0 million pounds of non-food grade corn oil. They expect to deliver the ethanol, distillers grains and corn oil through March 2020.

One Earth has entered into an agreement with an unrelated party for the use of a portion of the party's natural gas pipeline. The term of the original agreement was 10 years, and the amount was \$4,380,000, which was paid over 120 equal monthly installments of \$36,500 beginning in February 2009. A new 15-year agreement, with monthly payments of \$29,250 was effective February 1, 2019. One Earth paid approximately \$358,000 in fiscal year 2019 and approximately \$438,000 pursuant to the agreement in each of fiscal years 2018 and 2017.

One Earth and NuGen each have a contract with an unrelated party ("Distillers Grains Marketers") for distillers grains marketing services. Under the terms of the contracts, the Distillers Grains Marketers will purchase all of One Earth's and NuGen's distillers grains production during the term of the contracts. The contracts call for One Earth and NuGen to pay a fee per ton of distillers grains for the Distillers Grains Marketers' services. The terms of the agreements are for one year and shall renew automatically for additional one-year terms, unless either party sends notice to the other party of its intent to terminate the agreement at least 90 days prior to the expiration of the then current term of the agreement. One Earth and NuGen combined incurred fees of approximately \$936,000, \$1,250,000 and \$1,354,000 in fiscal years 2019, 2018 and 2017, respectively, for these marketing services.

The refined coal entity has various agreements (site license, operating agreements, etc.) containing payment terms based upon production of refined coal under which the Company is required to pay various fees. These fees totaled approximately \$4,231,000, \$9,927,000 and \$5,468,000 in fiscal years 2019, 2018 and 2017, respectively.

12. INCOME TAXES

The (benefit) provision for income taxes for fiscal years 2019, 2018 and 2017 consist of the following (amounts in thousands):

	 2019	 2018	 2017	
Federal:				
Current	\$ 752	\$ 81	\$ (2,094)	
Deferred	(10,777)	(23,547)	(19,528)	
	(10,025)	(23,466)	(21,622)	
State and Local:				
Current	(2,495)	361	1,180	
Deferred	(293)	183	923	
	· · · · · · · · · · · · · · · · · · ·			
	(2,788)	544	2,103	
Benefit for income taxes	\$ (12,813)	\$ (22,922)	\$ (19,519)	

The tax effects of significant temporary differences representing deferred tax assets and liabilities are as follows (amounts in thousands):

	Janua	ary 31,	
	2020		2019
Assets:			
General business credit carryforward	\$ 36,198	\$	26,523
Accrued liabilities	136		308
State net operating loss carryforward	366		294
Other items	230		647
Valuation allowance	(232)		(232)
Total	36,698		27,540
Liabilities:	 <u> </u>		· -
Basis in pass through entities, including depreciation	(23,823)		(25,725)
Other	(148)		(157)
Total	(23,971)		(25,882)
Net deferred tax asset	\$ 12,727	\$	1,658

The Company has a general business credit carryforward of approximately \$36.2 million and approximately \$26.5 million at January 31, 2020 and 2019, respectively. The Company can carry these credits forward for up to twenty years. The carryforward period begins to expire in fiscal year 2037.

The Company has a valuation allowance of approximately \$232,000 at January 31, 2020 and 2019. The Company decreased the valuation allowance by \$9,000 and \$176,000 in fiscal years 2018 and 2017, respectively. These adjustments to the valuation allowance are a result of estimates of realizing certain future state tax benefits.

The Tax Act signed into law on December 22, 2017, reduced the federal corporate income tax rate to 21% effective January 1, 2018. The Tax Act also made numerous other changes to the U.S. tax code, including, but not limited to, permitting full expensing of qualified property acquired after September 27, 2017, and expanding prior limitations on the deductibility of certain executive compensation.

The SEC issued Staff Accounting Bulletin 118 ("SAB 118"), which provides guidance on accounting for the tax effects of the Tax Act. In recognition of the inherent complexities associated with accounting for the effects of the Tax Act, SAB 118 provides a measurement period of up to one year from enactment of the Tax Act for companies to complete the accounting for the tax effects of the Tax Act. Although the accounting for the tax effects of the Tax Act was not yet complete, at January 31, 2018 the Company made a preliminary estimate of the effect of the tax rate reduction on the existing deferred tax balances and recorded a tax benefit of approximately \$14,362,000 to remeasure the deferred tax liability at the new 21% rate. The Company finalized its analysis in fiscal year 2018, and as a result, recorded a tax provision of approximately \$272,000.

Through its refined coal operation, the Company earns production tax credits pursuant to IRC Section 45. The credits can be used to reduce future income tax liabilities for up to 20 years. These credits increased the income tax benefit by approximately \$9.0 million, \$21.2 million and \$11.5 million during fiscal years 2019, 2018 and 2017, respectively.

During fiscal year 2019 and 2018, the company recognized an income tax benefit (net of uncertain tax position expense) of approximately \$0.4 million and \$4.6 million for federal and state research and experimentation credits. These credits recorded during fiscal year 2018 related to fiscal years 2014 to 2017 as well as an estimated tax benefit for fiscal year 2018.

The Company paid income taxes of approximately \$565,000, \$855,000 and \$6,920,000 in fiscal years 2019, 2018 and 2017, respectively. The Company received refunds of income taxes of approximately \$11,000, \$1,132,000 and \$476,000 in fiscal years 2019, 2018 and 2017, respectively.

Reconciliations of the federal statutory tax and the Company's income tax (benefit) expense for fiscal years 2019, 2018 and 2017 are as follows (amounts in thousands):

	 2019	 2018	 2017
Federal income tax at statutory rate	\$ (245)	\$ 3,063	\$ 8,583
State and local taxes, net of federal tax benefit	(427)	811	822
Section 45 production tax credits	(9,002)	(21,144)	(11,522)
Research and experimentation credits	(899)	(11,362)	
Tax Cuts and Jobs Act		272	(14,362)
Domestic production activities deduction		(62)	(1,503)
Uncertain tax positions	(1,435)	6,872	361
Noncontrolling interest	(1,035)	(1,425)	(1,927)
Other	230	53	29
	,		
Total	\$ (12,813)	\$ (22,922)	\$ (19,519)

The Company files a U.S. federal income tax return and income tax returns in various states. In general, the Company is no longer subject to U.S. federal, state or local income tax examinations by tax authorities for fiscal years ended January 31, 2014 and prior.

The Company applies the provisions of ASC 740-10-25-5 for uncertain tax positions. As of January 31, 2020, total unrecognized tax benefits were approximately \$7,353,000, and accrued penalties and interest were approximately \$17,000. If the Company were to prevail on all unrecognized tax benefits recorded, the provision for income taxes would be reduced by approximately \$7,299,000. In addition, the impact of penalties and interest would also benefit the effective tax rate. Interest and penalties associated with unrecognized tax benefits are recorded within income tax expense.

On a quarterly and annual basis, the Company accrues for the effects of open uncertain tax positions and the related potential penalties and interest. It is reasonably possible that the amount of the unrecognized tax benefit with respect to certain unrecognized tax positions will increase or decrease during the next 12 months; however, the Company does not expect the change to have a material effect on results of operations or financial position. A reconciliation of the beginning and ending amount of unrecognized tax benefits, including interest and penalties, is as follows (amounts in thousands):

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	 2019	 2018
Unrecognized tax benefits, beginning of year	\$ 9,232	\$ 2,325
Changes for tax positions for prior years	(2,581)	5,973
Changes for tax positions for current year	719	934
Unrecognized tax benefits, end of year	\$ 7,370	\$ 9,232

13. CONTINGENCIES

The Company is involved in various legal actions arising in the normal course of business. After taking into consideration legal counsels' evaluation of such actions, management is of the opinion that their outcome will not have a material effect on the Company's consolidated financial statements. There were no liabilities recorded at January 31, 2020 or 2019 as the Company did not believe that there was a probable and reasonably estimatable loss associated with any legal contingencies.

14. SEGMENT REPORTING

In the third quarter of fiscal year 2017, the Company began reporting the results of its refined coal operations as a new segment as a result of the refined coal acquisition (see Note 3). The Company has two segments: ethanol and by-products and refined coal. Historical amounts have been reclassified to conform to the current year segment reporting presentation. The Company evaluates the performance of each reportable segment based on net income attributable to REX common shareholders. The following tables summarize segment and other results and assets (amounts in thousands):

	Fiscal Year						
		2019		2018		2017	
Net sales and revenue:		_		_			
Ethanol and by-products	\$	417,700	\$	485,885	\$	452,153	
Refined coal ¹		334		786		433	
Total net sales and revenue	\$	418,034	\$	486,671	\$	452,586	
Segment gross profit (loss):							
Ethanol and by-products	\$	20,402	\$	43,856	\$	51,509	
Refined coal		(7,917)		(13,641)		(7,348)	
Total gross profit	\$	12,485	\$	30,215	\$	44,161	
(Loss) income before income taxes:							
Ethanol and by-products	\$	8,469	\$	31,545	\$	38,352	
Refined coal		(7,778)		(15,204)		(10,021)	
Corporate and other		(1,860)		(1,753)		(2,938)	
Total (loss) income before income taxes	\$	(1,169)	\$	14,588	\$	25,393	
Benefit (provision) for income taxes:							
Ethanol and by-products	\$	1,528	\$	(2,343)	\$	3,245	
Refined coal		10,828		24,674		15,168	
Corporate and other		457		591		1,106	
Total benefit for income taxes	\$	12,813	\$	22,922	\$	19,519	
Segment profit (loss):						_	
Ethanol and by-products	\$	5,439	\$	23,346	\$	35,880	
Refined coal		3,391		10,148		5,628	
Corporate and other		(1,403)		(1,849)		(1,802)	
Net income attributable to REX							
common shareholders	\$	7,427	\$	31,645	\$	39,706	

¹ Sales in the refined coal segment are recorded net of the cost of coal as the Company purchases the coal feedstock from the customer to wl refined coal is sold.

	I iscui Tcui							
		2019		2018		2017		
Sales of products, ethanol and by-products								
segment:								
Ethanol	\$	321,434	\$	368,319	\$	359,239		
Dried distillers grains		71,755		85,417		63,120		
Non-food grade corn oil		17,135		20,097		21,195		
Modified distillers grains		7,240		11,950		8,525		
Other		136		102		74		
Total sales	\$	417,700	\$	485,885	\$	452,153		
Sales of products, refined coal segment:								
Refined coal	\$	334	\$	786	\$	433		
Interest income:								
Ethanol and by-products	\$	2,949	\$	2,460	\$	878		
Refined coal		_		_				
Corporate and other		1,171		1,054		678		
Total interest income	\$	4,120	\$	3,514	\$	1,556		
Depreciation expense:	'							
Ethanol and by-products	\$	20,182	\$	22,004	\$	20,037		
Refined coal		2,790		2,784		1,385		
Corporate and other		35		40		40		
Total depreciation expense	\$	23,007	\$	24,828	\$	21,462		
Equity in income of unconsolidated affiliates:								
Ethanol and by-products	\$	1,392	\$	1,536	\$	3,232		
Refined coal		_		_				
Corporate and other						_		
Total equity in income of unconsolidated affiliates	\$	1,392	\$	1,536	\$	3,232		

Fiscal Year

	Jai	nuary 31,	,
Assets:	2020		2019
Ethanol and by-products	\$ 408,746	\$	393,691
Refined coal	6,101		8,625
Corporate and other	 85,655		69,077
Total assets	\$ 500,502	\$	471,393
Additions to property and equipment:	 		
Ethanol and by-products	\$ 3,776	\$	10,697
Refined coal	_		78
Corporate and other	_		_
Total additions to property and equipment	\$ 3,776	\$	10,775

All of the Company's sales are in the domestic market. The Company's customers make all decisions with regard to where products they purchase from the Company are distributed.

15. QUARTERLY UNAUDITED INFORMATION

The following tables set forth the Company's net sales and revenue, gross profit, net income and net income per share (basic and diluted) for each quarter during the last two fiscal years. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included.

Quarters Ended

				Quante		icu				
	(In Thousands, Except Per Share A						Amounts)			
	April 30,		July 31,		0	ctober 31,	Já	anuary 31,		
		2019		2019		2019		2020		
Net sales and revenue	\$	104,575	\$	105,868	\$	86,671	\$	120,920		
Gross profit (loss)		3,646		4,004		(1,758)		6,593		
Net income (loss)		3,715		3,353		(1,673)		6,249		
Net income (loss) attributable to REX common shareholders		2,821		2,256		(2,052)		4,402		
Basic and diluted net income (loss) per share attributable to REX common						, ,				
shareholders (a)	\$	0.45	\$	0.36	\$	(0.32)	\$	0.70		

	Quarters Ended (In Thousands, Except Per Share Amounts)									
		April 30,		July 31,		ctober 31,	Já	anuary 31,		
		2018		2018	3 2018			2019		
Net sales and revenue	\$	120,820	\$	128,757	\$	123,750	\$	113,344		
Gross profit		10,851		9,399		7,747		2,218		
Net income		10,352		10,490		13,769		2,899		
Net income attributable to REX common										
shareholders		9,496		9,217		11,875		1,057		
Basic and diluted net income per share attributable to REX common shareholders	\$	1.45	\$	1.43	\$	1.86	\$	0.17		

a) The total of the quarterly net income per share amounts do not equal the annual net income per share amounts due to the impact of varying amounts of shares outstanding during the year.

16. RELATED PARTIES

During fiscal years 2019, 2018 and 2017, One Earth and NuGen purchased approximately \$171.5 million, \$176.8 million and \$154.5 million, respectively, of corn (and other supplies) from minority equity investors. The Company had amounts payable to related parties for corn purchases of approximately \$0.7 million and \$1.9 million at January 31, 2020 and 2019, respectively.

During fiscal years 2019, 2018 and 2017, the Company recognized commission expense of approximately (\$0.7) million, \$0.8 million and \$1.8 million, respectively, payable to the minority investor in the refined coal entity. The commission expense is associated with the refined coal acquisition. The Company had accrued liabilities related to the commission expense of approximately \$0.5 million and approximately \$1.6 million at January 31, 2020 and 2019, respectively.

During fiscal years 2019 and 2018, the Company received approximately \$0.3 million and approximately \$0.5 million, respectively, in capital contributions from the minority investor in the refined coal entity.

17. SUBSEQUENT EVENT

During the early months of 2020, a new strain of COVID-19 spread into the United States and other countries. In an effort to contain the spread of this virus, there have been various government mandated restrictions, in addition to voluntary privately implemented restrictions, including limiting public gatherings, retail store closures, restrictions on employees working and the quarantining of people who may have been exposed to the virus. The duration of the resulting downturn in economic activity is unknown both on a macro and a micro level and has led to historically low ethanol pricing such that it is currently unprofitable to operate the Company's ethanol plants at such levels. Consequently, the Company has idled its NuGen and One Earth ethanol plants.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of REX American Resources Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of REX American Resources Corporation and subsidiaries (the "Company") as of January 31, 2020, 2019, and 2018, the related consolidated statements of operations, shareholders' equity and cash flows, for each of the three years in the period ended January 31, 2020, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of January 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of January 31, 2020, 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 April 1, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 7 to the financial statements, as of February 1, 2019, the Company changed its method of accounting for leases due to the adoption of Accounting Standards Update 2016-02, *Leases* (Topic 842). Our opinion is not modified with respect to this matter.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 Company 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 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte and Touche LLP

Dayton, Ohio April 1, 2020

We have served as the Company's auditor since 2002.

REX AMERICAN RESOURCES CORPORATION AND SUBSIDIARIES

Schedule II - VALUATION AND QUALIFYING ACCOUNTS FOR THE YEARS ENDED JANUARY 31, 2020, 2019 AND 2018 (Amounts in thousands)

			Add	ditions		uctions		
	Balance Beginning of Year		Charged to Cost and Expenses		Charges for Which Reserves Were Created		Balance End of Year	
2020:			·					
Deferred tax valuation allowance	\$	232	\$	_	\$	_	\$	232
2019:								
Deferred tax valuation allowance	\$	241	\$	_	\$	9	\$	232
2018:			-					
Deferred tax valuation allowance	\$	417	\$		\$	176	\$	241

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a–15(e) and 15d–15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Our officers concluded that our disclosure controls and procedures are also effective at the reasonable assurance level to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Material Changes to Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with accounting principles generally accepted in the United States of America.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems deemed to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Under the supervision and with the participation of our senior management, including our Chief Executive Officer and Chief Financial Officer, we assessed the effectiveness of our internal control over financial reporting as of January 31, 2020 based on the Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based upon this assessment, our management concluded that our internal control over financial reporting was effective as of January 31, 2020 based on those criteria.

The effectiveness of our internal control over financial reporting as of January 31, 2020 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is included herein.

/s/ ZAFAR RIZVI Chief Executive Officer and President

Zafar Rizvi (principal executive officer) April 1, 2020

/s/ DOUGLAS L. BRUGGEMAN Vice President-Finance, Chief Financial Officer and Treasurer

Douglas L. Bruggeman (principal financial and accounting officer) April 1, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of REX American Resources Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of REX American Resources Corporation and subsidiaries (the "Company") as of January 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended January 31, 2020, of the Company and our report dated April 1, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph related to the Company's change in its method of accounting for leases due to the adoption of Accounting Standards Update 2016-02, *Leases* (Topic 842), as of February 1, 2019.

Basis for Opinion

The Company'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 Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company'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 Company 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 included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and 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/ Deloitte & Touche LLP

Dayton, Ohio April 1, 2020

Item 9B. Other Information

None.

PART III

Item 10. <u>Directors, Executive Officers and Corporate Governance</u>

The information required by this Item 10 is incorporated herein by reference to the Proxy Statement for our Annual Meeting of Shareholders on June 16, 2020, except for certain information concerning our executive officers which is set forth in Part I of this report.

Item 11. <u>Executive Compensation</u>

The information required by this Item 11 is set forth in the Proxy Statement for our Annual Meeting of Shareholders on June 16, 2020 and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item 12 is set forth in the Proxy Statement for our Annual Meeting of Shareholders on June 16, 2020 and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by this Item 13 is set forth in the Proxy Statement for our Annual Meeting of Shareholders on June 16, 2020 and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by this Item 14 is set forth in the Proxy Statement for our Annual Meeting of Shareholders on June 16, 2020 and is incorporated herein by reference.

PART IV

Item 15. <u>Exhibits and Financial Statement Schedules</u>

(a)(1) Financial Statements

The following consolidated financial statements of REX American Resources Corporation and subsidiaries are filed as a part of this report at Item 8 hereof.

Consolidated Balance Sheets as of January 31, 2020 and 2019

Consolidated Statements of Operations for the years ended January 31, 2020, 2019 and 2018

Consolidated Statements of Cash Flows for the years ended January 31, 2020, 2019 and 2018

Consolidated Statements of Shareholders' Equity for the years ended January 31, 2020, 2019 and 2018

Notes to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

(a)(2)(i) Financial Statement Schedules

The following financial statement schedules are filed as a part of this report at Item 8 hereof.

Schedule II -Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable or not required, or because the required information is included in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

See Exhibit Index at page 75 of this report.

Management contracts and compensatory plans and arrangements filed as exhibits to this report are identified by an asterisk in the exhibit index.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

REX AMERICAN RESOURCES CORPORATION

By: /s/ ZAFAR RIZVI Zafar Rizvi

Chief Executive Officer and President

Date: April 1, 2020

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.

Signature /s/ STUART A. ROSE Stuart A. Rose	<u>Capacity</u> Executive Chairman of the Board	<u>Date</u> April 1, 2020
/s/ ZAFAR RIZVI Zafar Rizvi	Chief Executive Officer, President and Director (principal executive officer)	April 1, 2020
/s/ DOUGLAS L. BRUGGEMAN Douglas L. Bruggeman	Vice President-Finance, Chief Financial Officer and Treasurer (principal financial and accounting officer)	April 1, 2020
/s/ EDWARD M. KRESS Edward M. Kress	Director	April 1, 2020
/s/ CHARLES A. ELCAN Charles A. Elcan	Director	April 1, 2020
/s/ DAVID S. HARRIS David S. Harris	Director	April 1, 2020
/s/ MERVYN L. ALPHONSO Mervyn L. Alphonso	Director	April 1, 2020
/s/ LEE FISHER Lee Fisher	Director	April 1, 2020
/s/ ANNE MACMILLAN Anne MacMillan	Director	April 1, 2020

EXHIBIT INDEX

3(a)	Certificate of Incorporation, as amended (incorporated by reference to Exhibit 3(a) to Form 10-Q for quarter ended July 31, 2010, File No. 001-09097)
3(b)	By-Laws, as amended (incorporated by reference to Exhibit 3(a) to Form 8-K filed June 8, 2015, File No. 001-09097)
4(a)	Description of Securities Registered Under Section 12 of the Exchange Act
10(a)*	Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Stuart A. Rose (incorporated by reference to Exhibit 10(a) to Form 8-K filed June 8, 2015, File No. 001-09097)
10(b)*	Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Zafar Rizvi (incorporated by reference to Exhibit 10(b) to Form 8-K filed June 8, 2015, File No. 001-09097)
10(c)*	Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Douglas L. Bruggeman (incorporated by reference to Exhibit 10(c) to Form 8-K filed June 8, 2015, File No. 001-09097)
10(d)*	2015 Incentive Plan (incorporated by reference to Exhibit 10(d) to Form 8-K filed June 8, 2015, File No. 001-09097)
10(e)*	Form of Restricted Stock Award Agreement under 2015 Incentive Plan (incorporated by reference to Exhibit 10(e) to Form 8-K filed June 8, 2015, File No. 001-09097)
10(f)*	First Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Stuart A. Rose (incorporated by reference to Exhibit 10(a) to Form 10-Q for quarter ended July 31, 2017, File No. 001-09097)
10(g)*	First Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Zafar Rizvi (incorporated by reference to Exhibit 10(b) to Form 10-Q for quarter ended July 31, 2017, File No. 001-09097)
10(h)*	First Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Douglas L. Bruggeman (incorporated by reference to Exhibit 10(c) to Form 10-Q for quarter ended July 31, 2017, File No. 001-09097)
10(i)*	Second Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Stuart A. Rose (incorporated by reference to Exhibit 10(k) to Form 10-K for fiscal year ended January 31, 2018, File No. 001-09097)

- 10(j)* Second Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Zafar Rizvi (incorporated by reference to Exhibit 10(l) to Form 10-K for fiscal year ended January 31, 2018, File No. 001-09097)
- 10(k)* Second Amendment to Employment Agreement dated June 2, 2015 between Rex Radio and Television, Inc. and Douglas L. Bruggeman (incorporated by reference to Exhibit 10(m) to Form 10-K for fiscal year ended January 31, 2018, File No. 001-09097)
- (21) <u>Subsidiaries of the registrant:</u>
 - 21 Subsidiaries of registrant
- (23) *Consents of experts and counsel:*
 - 23(a) Consent of Deloitte & Touche LLP to use its reports dated April 1, 2020 included in this annual report on Form 10-K into registrant's Registration Statement on Form S-8 (Registration No. 333-205419)
- (31) Rule 13a-14(a)/15d-14(a) Certifications:
 - 31 Certifications.
- (32) <u>Section 1350 Certifications:</u>
 - 32 Certifications.
- (101) *Interactive Data File:*
 - The following information from REX American Resources Corporation Annual Report on Form 10-K for the fiscal year ended January 31, 2020, formatted in XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Shareholders' Equity, (iv) Consolidated Statements of Cash Flows and (v) Notes to Consolidated Financial Statements.

Copies of the Exhibits not filed herewith may be obtained by writing to Edward M. Kress, Secretary, REX American Resources Corporation, 7720 Paragon Road, Dayton, Ohio 45459.

Those exhibits marked with an asterisk (*) above are management contracts or compensatory plans or arrangements for directors or executive officers of the registrant.

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The authorized capital stock of REX American Resources Corporation, a Delaware corporation (the "Company") consists of 45,000,000 shares of common stock, \$.01 par value per share ("Common Stock"). The Company has no other classes of stock other than Common Stock. The following description of capital stock of the Company is qualified in its entirety by provisions of Delaware law and by reference to the terms and provisions of the Company's Certificate of Incorporation and By-Laws, which are incorporated herein by reference and both of which are filed as exhibits to this Annual Report on Form 10-K. All of the issued shares of Common Stock are fully paid and non-assessable. No holder of shares of Common Stock has or will have any right, pre-emptive or other, to subscribe for or to purchase from the Company any of the shares of any class of equity of the Company hereafter issued or sold. No shares of Common Stock are subject to any sinking fund provisions, or to calls, assessments by, or liabilities of the Company.

VOTING RIGHTS

Each share of Common Stock entitles the holder to one vote on all matters submitted to a vote of shareholders. The Company's Board of Directors (the "Board") is not classified and each member is elected annually. The Company's Certificate of Incorporation does not provide for cumulative voting. Instead, the Company's Certificate of Incorporation provides for directors in director elections to be elected by a simple majority of the votes cast. The holders of a majority of the votes cast have the voting power to elect all directors. The By-Laws of the Company provide that the holders of a majority of shares of Common Stock present at a meeting have the voting power to approve mergers, sales of assets and similar material corporate transactions except as otherwise provided by Delaware General Corporation Law.

DIVIDENDS

Holders of Common Stock are entitled to receive dividends on such Common Stuck, when, as, and if authorized and declared by the Board on a pro-rata basis. The payment of dividends on Common Stock will be a business decision to be made by the Board from time to time based upon the Company's results of operations and financial condition, covenants in any debt instruments, and such other factors as the Board considers relevant.

LIQUIDATION RIGHTS

Upon the Company's liquidation, dissolution or winding up, each holder of shares of Common Stock will be entitled to share ratably with the other holders of shares of Common Stock in all assets remaining after payments to all creditors.

SHARE REPURCHASE PROGRAM

The Company may, from time to time, pursuant to authorization by the Board, and without action by the Company's shareholders, purchase or otherwise acquire any of the Company's Common Stock in such manner, upon such terms, and in such amounts as the Board shall determine. The Company typically repurchases its common stock when our stock price is trading at prices the Company deems to be a discount to the underlying value of our net assets.

CHANGE OF CONTROL

The Company's Certificate of Incorporation and By-Laws contain	n various provisions that could discourage or delay attempts to gain
control of the Company, including, among others, provisions that:	

- a. authorize the Board to fix its size between three and 15;
- b. authorize directors to fill vacancies on the Board that occur between annual shareholder meetings; and
- c. require the vote of shareholders owning at least 66 2/3% of the outstanding shares of Common Stock to amend certain provisions of the Certificate of Incorporation related to liability of directors.

The Company is subject to Delaware General Corporation law. Neither the Company's Certificate of Incorporation nor the Company's By-Laws contain a provision excluding it from the application of any change of control provisions of Delaware corporate law.

SUBSIDIARIES OF REX AMERICAN RESOURCES CORPORATION

Name O	State of Incorporation or Organization
AVA Acquisition Corp.	Delaware
Rex Radio and Television, Inc. ⁽¹⁾	Ohio
Kelly & Cohen Appliances, Inc. ⁽¹⁾	Ohio
Rex Acquisition, LLC ⁽²⁾	Ohio
REX Carbon, LLC	Ohio
RGPP I, LLC ⁽³⁾	Ohio
REX/GPP II, LLC ⁽³⁾	Ohio
REX Investment, LLC ⁽⁴⁾	Ohio
REX IP, LLC	Ohio
REX Marketing Group, LLC ⁽³⁾	South Dakota
RRC1, LLC ⁽⁵⁾	Ohio
Farmers Energy Incorporated	Delaware
Farmers Energy Big River Holding, LLC ⁽⁶⁾	Ohio
Farmers Energy Big River, LLC ⁽⁷⁾	Ohio
Farmers Energy Cardinal Holding, LLC ⁽³⁾⁽⁶⁾	Ohio
Farmers Energy Highwater Holding, LLC ⁽³⁾⁽⁶⁾	Ohio
Farmers Energy Highwater, LLC ⁽³⁾⁽⁷⁾	Ohio
Farmers Energy Levelland Holding, LLC ⁽³⁾⁽⁶⁾	Ohio
Farmers Energy Levelland, LLC ⁽³⁾⁽⁷⁾	Ohio
Farmers Energy Millennium Holding, LLC ⁽³⁾⁽⁶⁾	Ohio
Farmers Energy Millennium, LLC ⁽³⁾⁽⁷⁾	Ohio

Farmers Energy One Earth Holding, LLC ⁽⁶⁾	Ohio
Farmers Energy One Earth, LLC ⁽⁷⁾	Ohio
One Earth Energy, LLC ⁽⁸⁾	Illinois
Farmers Energy Patriot Holding, LLC ⁽⁶⁾	Ohio
Farmers Energy Patriot, LLC ⁽⁷⁾	Ohio
FEI Investment Incorporated	Delaware
Future Energy, LLC ⁽⁹⁾	Ohio
FE-I, LLC ⁽¹⁰⁾	California
FE-II, $LLC^{(10)}$	Ohio
REX NuGen Holding, LLC ⁽⁶⁾	South Dakota
REX NuGen, LLC ⁽⁷⁾	South Dakota
NuGen Energy, LLC ⁽⁸⁾	South Dakota

- (2) Wholly-owned subsidiary of Rex Radio and Television, Inc.
- (3) Non-operating or inactive subsidiary.

Alistar Enterprises, LLC⁽¹¹⁾

(4) AVA Acquisition Corp. is the managing member and owns a 98.032% Class A membership interest, a 95.46% Class B membership interest and a 100% Class C membership interest.

Delaware

- (5) AVA Acquisition Corp. owns a 95.35% percentage interest.
- (6) First-tier wholly-owned subsidiary of Farmers Energy Incorporated.
- (7) Second-tier wholly-owned subsidiary of Farmers Energy Incorporated.
- (8) Third-tier majority-owned subsidiary of Farmers Energy Incorporated.
- (9) Majority-owned subsidiary of REX IP, LLC.
- (10) Wholly-owned subsidiary of Future Energy, LLC.
- (11) Wholly-owned subsidiary of RRC1, LLC.

⁽¹⁾ Wholly-owned subsidiary of AVA Acquisition Corp.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-205419 on Form S-8 of our reports dated April 1, 2020, relating to the consolidated financial statements and the consolidated financial statement schedule of REX American Resources Corporation and subsidiaries (the "Company") and the effectiveness of the Company's internal control over financial reporting appearing in this Annual Report on Form 10-K of the Company for the year ended January 31, 2020.

/s/ Deloitte & Touche LLP

Dayton, Ohio April 1, 2020

CERTIFICATIONS

I, Zafar Rizvi, certify that:

- 1. I have reviewed this annual report on Form 10-K of REX American Resources Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying 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 Rule 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: April 1, 2020

/s/ Zafar Rizvi Zafar Rizvi Chief Executive Officer and President

CERTIFICATIONS

- I, Douglas L. Bruggeman, certify that:
 - 1. I have reviewed this annual report on Form 10-K of REX American Resources Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying 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 Rule 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: April 1, 2020

/s/ Douglas L. Bruggeman Douglas L. Bruggeman Vice President, Finance, Treasurer and Chief Financial Officer

REX American Resources Corporation CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED BY SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officers of REX American Resources Corporation (the "Company") hereby certify, to their knowledge, that the Company's Annual Report on Form 10-K for the period ended January 31, 2020 which this certificate accompanies, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained therein fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

/s/Zafar Rizvi Zafar Rizvi Chief Executive Officer and President

/s/ Douglas L. Bruggeman Douglas L. Bruggeman Vice President, Finance, Treasurer and Chief Financial Officer

Date: April 1, 2020