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

FORM 10-Q

Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Quarterly Period Ended September 30, 2019

Commission File Number 001-32924

GREEN PLAINS INC.

(Exact name of registrant as specified in its charter)

Iowa	**84-1652107**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1811 Aksarben Drive, Omaha, NE 68106	**(402) 884-8700**
(Address of principal executive offices, including zip code)	(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.001 per share	GPRE	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

☒ Yes ☐ No

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

☐ Yes ☒ No

The number of shares of common stock, par value $0.001 per share, outstanding as of November 4, 2019, was 35,955,233 shares.

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Commonly Used Defined Terms

The abbreviations, acronyms and industry terminology used in this quarterly report are defined as follows:

Green Plains Inc., Subsidiaries, and Partners:

Green Plains; the company	Green Plains Inc. and its subsidiaries
BioProcess Algae	BioProcess Algae LLC
Fleischmann's Vinegar	Fleischmann's Vinegar Company, Inc.
Green Plains Cattle; GPCC	Green Plains Cattle Company LLC
Green Plains Grain	Green Plains Grain Company LLC
Green Plains Partners; the partnership	Green Plains Partners LP
Green Plains Trade	Green Plains Trade Group LLC

Accounting Defined Terms:

ASC	Accounting Standards Codification
Bgy	Billion gallons per year
EBITDA	Earnings before interest, income taxes, depreciation and amortization
EPS	Earnings per share
Exchange Act	Securities Exchange Act of 1934, as amended
GAAP	U.S. Generally Accepted Accounting Principles
LIBOR	London Interbank Offered Rate
LTIP	Long-Term Incentive Plan
R&D Credits	Research and development tax credits
SEC	Securities and Exchange Commission

Industry Defined Terms:

CAFE	Corporate Average Fuel Economy
D.C.	District of Columbia
E10	Gasoline blended with up to 10% ethanol by volume
E15	Gasoline blended with up to 15% ethanol by volume
E85	Gasoline blended with up to 85% ethanol by volume
EIA	U.S. Energy Information Administration
EPA	U.S. Environmental Protection Agency
MmBtu	Million British Thermal Units
Mmg	Million gallons
MTBE	Methyl tertiary-butyl ether
RFS II	Renewable Fuels Standard II
RIN	Renewable identification number
RVO	Renewable volume obligation
USDA	U.S. Department of Agriculture

PART 1 – FINANCIAL INFORMATION

Item 1. Financial Statements.

GREEN PLAINS INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	September 30, 2019	December 31, 2018
	(unaudited)	
ASSETS		
Current assets		
Cash and cash equivalents	$ 235,537	$ 251,681
Restricted cash	18,502	31,603
Accounts receivable, net of allowances of $203 and $147, respectively	64,322	88,501
Income taxes receivable	12,933	12,418
Inventories	250,614	302,600
Prepaid expenses and other	10,578	14,125
Derivative financial instruments	29,569	26,315
Current assets of discontinued operations	-	479,399
Total current assets	622,055	1,206,642
Property and equipment, net of accumulated depreciation and amortization of $469,216 and $418,652, respectively	809,041	815,235
Operating lease right-of-use assets	56,437	-
Goodwill	34,689	34,689
Investment in equity method investees	93,029	29,714
Deferred income taxes	22,578	-
Other assets	54,242	57,092
Noncurrent assets of discontinued operations	-	73,060
Total assets	$ 1,692,071	$ 2,216,432
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 126,815	$ 135,829
Accrued and other liabilities	43,440	52,563
Derivative financial instruments	14,564	7,852
Operating lease current liabilities	16,954	-
Short-term notes payable and other borrowings	149,143	163,751
Current maturities of long-term debt	132,999	54,769
Current liabilities of discontinued operations	-	418,936
Total current liabilities	483,915	833,700
Long-term debt	248,289	298,110
Deferred income taxes	1,903	10,123
Operating lease long-term liabilities	42,142	-
Other liabilities	9,360	11,428
Noncurrent liabilities of discontinued operations	-	82
Total liabilities	785,609	1,153,443
Commitments and contingencies (Note 14)		
Stockholders' equity		
Common stock, $0.001 par value; 75,000,000 shares authorized; 46,914,764 and 46,637,549 shares issued, and 36,519,306 and 41,101,975 shares outstanding, respectively	47	47
Additional paid-in capital	730,808	696,222
Retained earnings	187,899	324,728
Accumulated other comprehensive loss	(11,754)	(16,016)
Treasury stock, 10,395,458 and 5,535,574 shares, respectively	(114,046)	(58,162)
Total Green Plains stockholders' equity	792,954	946,819
Noncontrolling interests	113,508	116,170
Total stockholders' equity	906,462	1,062,989
Total liabilities and stockholders' equity	$ 1,692,071	$ 2,216,432

See accompanying notes to the consolidated financial statements.

GREEN PLAINS INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited and in thousands, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenues				
Product revenues	$ 631,032	$ 787,750	$ 1,696,245	$ 2,395,877
Service revenues	1,318	1,298	5,315	4,546
Total revenues	632,350	789,048	1,701,560	2,400,423
Costs and expenses				
Cost of goods sold (excluding depreciation and amortization expenses reflected below)	632,129	733,080	1,700,481	2,233,914
Operations and maintenance expenses	6,216	7,271	19,314	23,564
Selling, general and administrative expenses	18,542	23,215	56,450	75,751
Depreciation and amortization expenses	17,828	29,266	52,963	80,170
Total costs and expenses	674,715	792,832	1,829,208	2,413,399
Operating loss from continuing operations	(42,365)	(3,784)	(127,648)	(12,976)
Other income (expense)				
Interest income	767	745	2,813	2,053
Interest expense	(10,548)	(19,703)	(31,528)	(58,330)
Other, net	88	133	630	260
Total other expense	(9,693)	(18,825)	(28,085)	(56,017)
Loss from continuing operations before income taxes and income (loss) from equity method investees	(52,058)	(22,609)	(155,733)	(68,993)
Income tax benefit	12,530	14,973	40,692	34,524
Income (loss) from equity method investees, net of income taxes	644	(250)	534	(489)
Net loss from continuing operations including noncontrolling interest	(38,884)	(7,886)	(114,507)	(34,958)
Net income from discontinued operations, net of income taxes	3,393	467	966	11,835
Net loss	(35,491)	(7,419)	(113,541)	(23,123)
Net income attributable to noncontrolling interests	3,479	5,050	13,570	14,457
Net loss attributable to Green Plains	$ (38,970)	$ (12,469)	$ (127,111)	$ (37,580)
Earnings (loss) per share - basic and diluted:				
Net loss from continuing operations	$ (1.15)	$ (0.32)	$ (3.28)	$ (1.23)
Net income from discontinued operations	0.09	0.01	0.03	0.29
Net loss attributable to Green Plains	$ (1.06)	$ (0.31)	$ (3.25)	$ (0.94)
Weighted average shares outstanding:				
Basic	36,913	40,229	39,092	40,189
Diluted	36,913	40,229	39,092	40,189

See accompanying notes to the consolidated financial statements.

GREEN PLAINS INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(unaudited and in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	**2018**	**2019**	**2018**
Net loss	$ (35,491)	$ (7,419)	$ (113,541)	$ (23,123)
Other comprehensive income (loss), net of tax:				
Unrealized gains (losses) on derivatives arising during the period, net of tax benefit (expense) of ($5,149), $4,314, ($12,953) and $343, respectively	28,095	(14,395)	54,472	(1,522)
Reclassification of realized losses (gains) on derivatives, net of tax expense (benefit) of $13,445, ($420), $9,358 and ($55), respectively	(53,255)	1,427	(39,439)	243
Other comprehensive income (loss), net of tax	(25,160)	(12,968)	15,033	(1,279)
Share of equity method investees other comprehensive loss arising during the period, net of tax benefit of $3,555, $0, $3,555, and $0, respectively	(10,771)	-	(10,771)	-
Total other comprehensive income (loss), net of tax	(35,931)	(12,968)	4,262	(1,279)
Comprehensive loss	(71,422)	(20,387)	(109,279)	(24,402)
Comprehensive income attributable to noncontrolling interests	3,479	5,050	13,570	14,457
Comprehensive loss attributable to Green Plains	$ (74,901)	$ (25,437)	$ (122,849)	$ (38,859)

See accompanying notes to the consolidated financial statements.

GREEN PLAINS INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited and in thousands)

	Nine Months Ended September 30,	
	2019	2018
Cash flows from operating activities:		
Net loss from continuing operations including noncontrolling interest	$ (114,507)	$ (34,958)
Net income from discontinued operations, net of income taxes	966	11,835
Net loss	(113,541)	(23,123)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	52,963	80,170
Amortization of debt issuance costs and debt discount	15,633	10,617
Deferred income taxes	(38,918)	(37,980)
Stock-based compensation	7,406	8,726
Income (loss) from equity method investees, net of income taxes	(534)	489
Other	1,245	(152)
Changes in operating assets and liabilities before effects of business combinations and dispositions:		
Accounts receivable	21,106	24,684
Inventories	52,400	52,966
Derivative financial instruments	7,208	(10,395)
Prepaid expenses and other assets	3,900	2,137
Accounts payable and accrued liabilities	(22,359)	(78,758)
Current income taxes	(2,175)	31,220
Other	(2,167)	(2,539)
Net cash provided by (used in) operating activities - continuing operations	(17,833)	58,062
Net cash provided by operating activities - discontinued operations	17,469	26,326
Net cash provided by (used in) operating activities	(364)	84,388
Cash flows from investing activities:		
Purchases of property and equipment, net	(43,372)	(29,892)
Proceeds from sale of discontinued operations, net of cash divested	77,240	-
Proceeds from the sale of assets, net	3,469	-
Contribution to equity method investees	(100)	(2,446)
Other investing activities	-	7,500
Net cash provided by (used in) investing activities - continuing operations	37,237	(24,838)
Net cash used in investing activities - discontinued operations	(4,169)	(125,629)
Net cash provided (used in) investing activities	33,068	(150,467)
Cash flows from financing activities:		
Proceeds from the issuance of long-term debt	180,100	58,700
Payments of principal on long-term debt	(68,235)	(62,537)
Proceeds from short-term borrowings	1,994,777	2,758,767
Payments on short-term borrowings	(2,070,273)	(2,834,617)
Payments for repurchase of common stock	(55,884)	-
Payments of cash dividends and distributions	(26,189)	(30,921)
Proceeds from disgorgement of shareholder short-swing profits	6,699	-
Payments of loan fees	(5,290)	(3,373)
Payments related to tax withholdings for stock-based compensation	(2,101)	(3,215)
Proceeds from exercise of stock options	-	150
Net cash used in financing activities - continuing operations	(46,396)	(117,046)
Net cash provided by (used in) financing activities - discontinued operations	(50,464)	105,236
Net cash used in financing activities	(96,860)	(11,810)
Net change in cash, cash equivalents and restricted cash	(64,156)	(77,889)
Cash, cash equivalents and restricted cash, beginning of period	283,284	289,667
Discontinued operations cash activity included above:		
Add: Cash balance included in current assets of discontinued operations at beginning of period	34,911	22,693
Less: Cash balance included in current assets of discontinued operations at end of period	-	(40,461)
Cash, cash equivalents and restricted cash, end of period	$ 254,039	$ 194,010

Continued on the following page

GREEN PLAINS INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited and in thousands)

Continued from the previous page

	Nine Months Ended September 30,	
	2019	**2018**
Reconciliation of total cash, cash equivalents and restricted cash:		
Cash and cash equivalents	$ 235,537	$ 171,674
Restricted cash	18,502	62,797
Discontinued operations cash activity included above:		
Less: Cash, cash equivalents and restricted cash balance included in current assets of discontinued operations at end of period	-	(40,461)
Total cash, cash equivalents and restricted cash	$ 254,039	$ 194,010
Non-cash financing activity:		
Modification of 3.25% convertible notes due 2019	$ -	$ 4,660
Exchange of common stock held in treasury stock for 3.25% convertible notes due 2018	$ -	$ 1
Supplemental investing and financing activities of discontinued operations:		
Assets acquired in acquisitions, net of cash	$ -	$ 124,525
Less: liabilities assumed	-	(118)
Net assets acquired	$ -	$ 124,407
Assets disposed of in sale	$ 527,614	$ -
Less: liabilities disposed	(373,846)	-
Net assets disposed	$ 153,768	$ -
Supplemental disclosures of cash flow:		
Cash paid (refunded) for income taxes	$ 640	$ (23,568)
Cash paid for interest of continuing operations	$ 21,777	$ 49,853
Cash paid for interest of discontinued operations	$ 11,556	$ 8,444

See accompanying notes to the consolidated financial statements.

GREEN PLAINS INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. BASIS OF PRESENTATION, DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

References to the Company

References to "Green Plains" or the "company" in the consolidated financial statements and in these notes to the consolidated financial statements refer to Green Plains Inc., an Iowa corporation, and its subsidiaries.

Consolidated Financial Statements

The consolidated financial statements include the company's accounts and all significant intercompany balances and transactions are eliminated. Unconsolidated entities are included in the financial statements on an equity basis. The company owns a 49.1% limited partner interest and a 2.0% general partner interest in Green Plains Partners LP. Public investors own the remaining 48.9% limited partner interest in the partnership. The company determined that the limited partners in the partnership with equity at risk lack the power, through voting rights or similar rights, to direct the activities that most significantly impact partnership's economic performance; therefore, the partnership is considered a variable interest entity. The company, through its ownership of the general partner interest in the partnership, has the power to direct the activities that most significantly affect economic performance and is obligated to absorb losses and has the right to receive benefits that could be significant to the partnership. Therefore, the company is considered the primary beneficiary and consolidates the partnership in the company's financial statements. The assets of the partnership cannot be used by the company for general corporate purposes. The partnership's consolidated total assets as of September 30, 2019 and December 31, 2018, excluding intercompany balances, are $102.5 million and $67.3 million, respectively, and primarily consist of property and equipment, operating lease right-of-use assets and goodwill. The partnership's consolidated total liabilities as of September 30, 2019 and December 31, 2018, excluding intercompany balances, are $194.3 million and $152.9 million, respectively, which primarily consist of long-term debt as discussed in Note 9 – Debt and operating lease liabilities. The liabilities recognized as a result of consolidating the partnership do not represent additional claims on our general assets.

On September 9, 2019, Green Plains, TGAM Agribusiness Fund Holdings-B LP ("TGAM") and StepStone Atlantic Fund, L.P. ("StepStone") announced the formation of a joint venture. Such parties entered into the Second Amended and Restated Limited Liability Company Agreement (the "LLC Agreement") of Green Plains Cattle Company LLC ("GPCC") on September 6, 2019, effective as of September 1, 2019. GPCC was previously a wholly owned subsidiary of Green Plains. Green Plains also entered into a Securities Purchase Agreement with TGAM and StepStone, whereby TGAM and StepStone purchased an aggregate of 50% of the membership interests of GPCC from Green Plains. After closing, GPCC is no longer consolidated in the company's consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. Under this method, the investment is recorded at the acquisition cost plus the company's share of equity in undistributed earnings or losses since acquisition and the company's share of equity method investees other comprehensive income arising during the period, reduced by distributions received and the amortization of excess net investment. The company recognizes this investment on a separate line item in the consolidated balance sheet and recognizes its proportionate share of earnings on a separate line item in the consolidated statement of operations. The company does not consolidate any part of the assets or liabilities or operating results of its equity method investees. Additionally, the company concluded that the disposition of GPCC met the requirements under *ASC 205-20 Presentation of Financial Statements – Discontinued Operations* ("ASC 205-20") to be presented as discontinued operations. As such, GPCC results prior to its disposition are classified as discontinued operations in current and prior period consolidated financial statements. See *Note 3 - Acquisitions, Dispositions and Discontinued Operations* for further details.

The company also owns a 90.0% interest in BioProcess Algae, a joint venture formed in 2008, and consolidates their results in its consolidated financial statements.

The accompanying unaudited consolidated financial statements are prepared in accordance with GAAP for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Because they do not include all of the information and notes required by GAAP, the consolidated financial statements should be read in conjunction with the company's annual report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 20, 2019.

The unaudited financial information reflects adjustments, which are, in the opinion of management, necessary for a fair presentation of results of operations, financial position and cash flows for the periods presented. The adjustments are normal

and recurring in nature, unless otherwise noted. Interim period results are not necessarily indicative of the results to be expected for the entire year.

Reclassifications

Certain prior year amounts were reclassified to conform to the current year presentation, including the discontinued operations of GPCC. These reclassifications affected total revenues, costs and expenses.

Use of Estimates in the Preparation of Consolidated Financial Statements

The preparation of consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, 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. The company bases its estimates on historical experience and assumptions it believes are proper and reasonable under the circumstances and regularly evaluates the appropriateness of its estimates and assumptions. Actual results could differ from those estimates. Key accounting policies, including but not limited to those relating to revenue recognition, depreciation of property and equipment, carrying value of intangible assets, operating leases, impairment of long-lived assets and goodwill, derivative financial instruments, accounting for income taxes and assets acquired and liabilities assumed in acquisitions, are impacted significantly by judgments, assumptions and estimates used in the preparation of the consolidated financial statements.

Description of Business

The company operates within four business segments: (1) ethanol production, which includes the production of ethanol, distillers grains and corn oil, (2) agribusiness and energy services, which includes grain handling and storage, commodity marketing and merchant trading for company-produced and third-party ethanol, distillers grains, corn oil, natural gas and other commodities, (3) food and ingredients, which includes food-grade corn oil and vinegar production until the sale of Fleischmann's Vinegar during the fourth quarter of 2018 and (4) partnership, which includes fuel storage and transportation services.

Cash and Cash Equivalents

Cash and cash equivalents includes bank deposits as well as short-term, highly liquid investments with original maturities of three months or less.

Restricted Cash

The company has restricted cash, which can only be used for funding letters of credit or for payment towards a revolving credit agreement. Restricted cash also includes cash margins and securities pledged to commodity exchange clearinghouses and at times, funds in escrow related to acquisition and disposition activities. To the degree these segregated balances are cash and cash equivalents, they are considered restricted cash on the consolidated statements of cash flows.

Revenue Recognition

The company recognizes revenue when obligations under the terms of a contract with a customer are satisfied. Generally this occurs with the transfer of control of products or services. Revenue is measured as the amount of consideration expected to be received in exchange for transferring goods or providing services. Sales, value add, and other taxes the company collects concurrent with revenue-producing activities are excluded from revenue.

Sales of ethanol, distillers grains, corn oil, natural gas and other commodities by the company's marketing business are recognized when obligations under the terms of a contract with a customer are satisfied. Generally, this occurs with the transfer of control of products or services. Revenues related to marketing for third parties are presented on a gross basis as the company controls the product prior to the sale to the end customer, takes title of the product and has inventory risk. Unearned revenue is recorded for goods in transit when the company has received payment but control has not yet been transferred to the customer. Revenues for receiving, storing, transferring and transporting ethanol and other fuels are recognized when the product is delivered to the customer.

The company routinely enters into physical-delivery energy commodity purchase and sale agreements. At times, the company settles these transactions by transferring its obligations to other counterparties rather than delivering the physical commodity. Energy trading transactions are reported net as a component of revenue. Revenues include net gains or losses

from derivatives related to products sold while cost of goods sold includes net gains or losses from derivatives related to commodities purchased. Revenues also include realized gains and losses on related derivative financial instruments and reclassifications of realized gains and losses on cash flow hedges from accumulated other comprehensive income or loss.

Sales of products, including agricultural commodities, are recognized when control of the product is transferred to the customer, which depends on the agreed upon shipment or delivery terms. Revenues related to grain merchandising are presented gross and include shipping and handling, which is also a component of cost of goods sold. Revenues from grain storage are recognized when services are rendered.

A substantial portion of the partnership revenues are derived from fixed-fee commercial agreements for storage, terminal or transportation services. The partnership recognizes revenue upon transfer of control of product from its storage tanks and fuel terminals, when railcar volumetric capacity is provided, and as truck transportation services are performed. To the extent shortfalls associated with minimum volume commitments in the previous four quarters continue to exist, volumes in excess of the minimum volume commitment are applied to those shortfalls. Remaining excess volumes generating operating lease revenue are recognized as incurred.

Shipping and Handling Costs

The company accounts for shipping and handling activities related to contracts with customers as costs to fulfill its promise to transfer the associated products. Accordingly, the company records customer payments associated with shipping and handling costs as a component of revenue, and classifies such costs as a component of cost of goods sold.

Cost of Goods Sold

Cost of goods sold includes direct labor, materials, shipping and plant overhead costs. Direct labor includes all compensation and related benefits of non-management personnel involved in ethanol production and vinegar production until the sale of Fleischmann’s Vinegar during the fourth quarter of 2018. Grain purchasing and receiving costs, excluding labor costs for grain buyers and scale operators, are also included in cost of goods sold. Materials include the cost of corn feedstock, denaturant, and process chemicals. Corn feedstock costs include gains and losses on related derivative financial instruments not designated as cash flow hedges, inbound freight charges, inspection costs and transfer costs, as well as reclassifications of gains and losses on cash flow hedges from accumulated other comprehensive income or loss. Plant overhead consists primarily of plant utilities, repairs and maintenance and outbound freight charges. Shipping costs incurred by the company, including railcar costs, are also reflected in cost of goods sold.

The company uses exchange-traded futures and options contracts and forward purchase and sale contracts to attempt to minimize the effect of price changes on ethanol, grain and natural gas. Exchange-traded futures and options contracts are valued at quoted market prices and settled predominantly in cash. The company is exposed to loss when counterparties default on forward purchase and sale contracts. Grain inventories held for sale and forward purchase and sale contracts are valued at market prices when available or other market quotes adjusted for differences, primarily in transportation, between the exchange-traded market and local market where the terms of the contract is based. Changes in forward purchase contracts and exchange-traded futures and options contracts are recognized as a component of cost of goods sold.

Operations and Maintenance Expenses

In the partnership segment, transportation expenses represent the primary component of operations and maintenance expenses. Transportation expenses include railcar leases, freight and shipping of the company’s ethanol and co-products, as well as costs incurred storing ethanol at destination terminals.

Derivative Financial Instruments

The company uses various derivative financial instruments, including exchange-traded futures and exchange-traded and over-the-counter options contracts, to attempt to minimize risk and the effect of commodity price changes including but not limited to, corn, ethanol, natural gas and crude oil. The company monitors and manages this exposure as part of its overall risk management policy to reduce the adverse effect market volatility may have on its operating results. The company may hedge these commodities as one way to mitigate risk; however, there may be situations when these hedging activities themselves result in losses.

By using derivatives to hedge exposures to changes in commodity prices, the company is exposed to credit and market risk. The company’s exposure to credit risk includes the counterparty’s failure to fulfill its performance obligations under the

terms of the derivative contract. The company minimizes its credit risk by entering into transactions with high quality counterparties, limiting the amount of financial exposure it has with each counterparty and monitoring their financial condition. Market risk is the risk that the value of the financial instrument might be adversely affected by a change in commodity prices or interest rates. The company manages market risk by incorporating parameters to monitor exposure within its risk management strategy, which limits the types of derivative instruments and strategies the company can use and the degree of market risk it can take using derivative instruments.

The company evaluates its physical delivery contracts to determine if they qualify for normal purchase or sale exemptions which are expected to be used or sold over a reasonable period in the normal course of business. Contracts that do not meet the normal purchase or sale criteria are recorded at fair value. Changes in fair value are recorded in operating income unless the contracts qualify for, and the company elects, cash flow hedge accounting treatment.

Certain qualifying derivatives related to ethanol production and agribusiness and energy services are designated as cash flow hedges. The company evaluates the derivative instrument to ascertain its effectiveness prior to entering into cash flow hedges. Unrealized gains and losses are reflected in accumulated other comprehensive income or loss until the gain or loss from the underlying hedged transaction is realized. When it becomes probable a forecasted transaction will not occur, the cash flow hedge treatment is discontinued, which affects earnings. These derivative financial instruments are recognized in current assets or other current liabilities at fair value.

At times, the company hedges its exposure to changes in inventory values and designates qualifying derivatives as fair value hedges. The carrying amount of the hedged inventory is adjusted in the current period for changes in fair value. Ineffectiveness of the hedges is recognized in the current period to the extent the change in fair value of the inventory is not offset by the change in fair value of the derivative.

Investments in Equity Method Investees

The company accounts for investments in which the company exercises significant influence using the equity method so long as the company (i) does not control the investee and (ii) is not the primary beneficiary of the entity. The company recognizes these investments as a separate line item in the consolidated balance sheets and its proportionate share of earnings on a separate line item in the consolidated statements of operations. The company’s share of equity method investees other comprehensive income arising during the period is included in accumulated other comprehensive loss in the consolidated balance sheet.

The company recognizes losses in the value of equity method investments when there is evidence of an other-than-temporary decrease in value. Evidence of a loss might include, but would not necessarily be limited to, the inability to recover the carrying amount of the investment or the inability of the equity method investee to sustain an earnings capacity that justifies the carrying amount of the investment. The current fair value of an investment that is less than its carrying amount may indicate a loss in value of the investment. The company evaluates equity method investments for impairment when there is evidence an investment may be impaired.

Distributions paid to the company from unconsolidated affiliates are classified as operating activities in the consolidated statements of cash flows until the cumulative distributions exceed the company’s proportionate share of income from the unconsolidated affiliate since the date of initial investment. The amount of cumulative distributions paid to the company that exceeds the cumulative proportionate share of income in each period represents a return of investment, which is classified as an investing activity in the consolidated statements of cash flows.

Discontinued Operations

In determining whether a disposal group should be presented as discontinued operations, the company makes a determination of whether such a group being disposed of comprises a component of the entity, or a group of components of the entity, that represents a strategic shift that has, or will have, a major effect on the company's operations and financial results. If these determinations are made affirmatively, the results of operations of the group being disposed of are aggregated for separate presentation apart from the continuing operations of the company for all periods presented in the consolidated financial statements. General corporate overhead is not allocated to discontinued operations.

Net income from discontinued operations, net of income taxes, relates to the operations of GPCC, which was previously a wholly owned subsidiary of Green Plains until the formation of the GPCC joint venture and partial sale during the third quarter of 2019. The assets and liabilities of GPCC have been reclassified as assets and liabilities of discontinued operations

in the prior year. All assets and liabilities of GPCC were disposed of during the three months ended September 30, 2019. See *Note 3 - Acquisitions, Dispositions and Discontinued Operations* for further details.

The company entered into a shared service agreement whereby they will continue to provide certain administrative services to GPCC and will receive $400 thousand on a quarterly basis through September 1, 2024, with the option for automatic renewal for successive one year periods thereafter and the quarterly fee subject to adjustments annually based on services rendered or market rates. The company will continue to sell distillers grains and corn to GPCC, and will recognize these sales and related cost of goods in continuing operations within their consolidated results, whereas previously these were eliminated as intercompany transactions.

Recent Accounting Pronouncements

Effective January 1, 2019, the company adopted the amended guidance in ASC 842, *Leases.* Please refer to *Note 14 – Commitments and Contingencies* for further details.

2. REVENUE

Revenue Recognition

Revenue is recognized when obligations under the terms of a contract with a customer are satisfied. Generally this occurs with the transfer of control of products or services. Revenue is measured as the amount of consideration expected to be received in exchange for transferring goods or providing services. Sales, value add, and other taxes the company collects concurrent with revenue-producing activities are excluded from revenue.

Revenue by Source

The following tables disaggregate revenue by major source for the three and nine months ended September 30, 2019 and 2018 excluding amounts related to discontinued operations (in thousands):

	Three Months Ended September 30, 2019 [1]					
	Ethanol Production	Agribusiness & Energy Services	Food & Ingredients	Partnership	Eliminations	Total
Revenues:						
Revenues from contracts with customers under ASC 606:						
Ethanol	$ -	$ -	$ -	$ -	$ -	$ -
Distillers grains	16,455	-	-	-	-	16,455
Service revenues	-	-	-	1,275	-	1,275
Other	127	895	-	-	-	1,022
Intersegment revenues	24	-	-	2,046	(2,070)	-
Total revenues from contracts with customers	16,606	895	-	3,321	(2,070)	18,752
Revenues from contracts accounted for as derivatives under ASC 815 [2]:						
Ethanol	389,847	111,454	-	-	-	501,301
Distillers grains	62,698	6,077	-	-	-	68,775
Corn oil	14,308	5,509	-	-	-	19,817
Grain	2	19,056	-	-	-	19,058
Other	945	3,659	-	-	-	4,604
Intersegment revenues	-	7,293	-	-	(7,293)	-
Total revenues from contracts accounted for as derivatives	467,800	153,048	-	-	(7,293)	613,555
Leasing revenues under ASC 842 [3]:	-	-	-	16,833	(16,790)	43
Total Revenues	$ 484,406	$ 153,943	$ -	$ 20,154	$ (26,153)	$ 632,350

	Nine Months Ended September 30, 2019 [1]					
	Ethanol Production	Agribusiness & Energy Services	Food & Ingredients	Partnership	Eliminations	Total
Revenues:						
Revenues from contracts with customers under ASC 606:						
Ethanol	$ 620	$ -	$ -	$ -	$ -	$ 620
Distillers grains	47,860	-	-	-	-	47,860
Service revenues	-	-	-	4,966	-	4,966
Other	2,135	1,515	-	-	-	3,650
Intersegment revenues	75	-	-	5,267	(5,342)	-
Total revenues from contracts with customers	50,690	1,515	-	10,233	(5,342)	57,096
Revenues from contracts accounted for as derivatives under ASC 815 [2]:						
Ethanol	946,390	324,756	-	-	-	1,271,146
Distillers grains	165,436	32,165	-	-	-	197,601
Corn oil	35,915	22,943	1,451	-	-	60,309
Grain	138	59,140	-	-	-	59,278
Other	7,613	48,168	-	-	-	55,781
Intersegment revenues	-	19,432	-	-	(19,432)	-
Total revenues from contracts accounted for as derivatives	1,155,492	506,604	1,451	-	(19,432)	1,644,115
Leasing revenues under ASC 842 [3]:	-	-	-	51,833	(51,484)	349
Total Revenues	$ 1,206,182	$ 508,119	$ 1,451	$ 62,066	$ (76,258)	$ 1,701,560

	Three Months Ended September 30, 2018 [1]					
	Ethanol Production	Agribusiness & Energy Services	Food & Ingredients	Partnership	Eliminations	Total
Revenues:						
Revenues from contracts with customers under ASC 606:						
Ethanol	$ 291	$ -	$ -	$ -	$ -	$ 291
Distillers grains	55,370	-	-	-	-	55,370
Vinegar	-	-	29,032	-	-	29,032
Service revenues	-	-	-	983	-	983
Other	238	680	-	-	-	918
Intersegment revenues	37	23	-	2,597	(2,657)	-
Total revenues from contracts with customers	55,936	703	29,032	3,580	(2,657)	86,594
Revenues from contracts accounted for as derivatives under ASC 815 [2]:						
Ethanol	440,333	93,166	-	-	-	533,499
Distillers grains	59,195	45,645	-	-	-	104,840
Corn oil	17,088	10,275	4,411	-	-	31,774
Grain	30	23,921	-	-	-	23,951
Other	3,930	4,145	-	-	-	8,075
Intersegment revenues	-	9,127	-	-	(9,127)	-
Total revenues from contracts accounted for as derivatives	520,576	186,279	4,411	-	(9,127)	702,139
Leasing revenues under ASC 840 [3]:	-	-	-	22,190	(21,875)	315
Total Revenues	$ 576,512	$ 186,982	$ 33,443	$ 25,770	$ (33,659)	$ 789,048

	Nine Months Ended September 30, 2018 [1]					
	Ethanol Production	Agribusiness & Energy Services	Food & Ingredients	Partnership	Eliminations	Total
Revenues:						
Revenues from contracts with customers under ASC 606:						
Ethanol	$ 3,391	$ -	$ -	$ -	$ -	$ 3,391
Distillers grains	176,690	-	-	-	-	176,690
Vinegar	-	-	90,229	-	-	90,229
Service revenues	-	-	-	3,430	-	3,430
Other	1,570	2,012	-	-	-	3,582
Intersegment revenues	157	23	-	7,286	(7,466)	-
Total revenues from contracts with customers	181,808	2,035	90,229	10,716	(7,466)	277,322
Revenues from contracts accounted for as derivatives under ASC 815 [2]:						
Ethanol	1,333,989	321,824	-	-	-	1,655,813
Distillers grains	154,230	101,678	-	-	-	255,908
Corn oil	52,690	22,433	12,048	-	-	87,171
Grain	500	67,085	-	-	-	67,585
Other	12,486	43,022	-	-	-	55,508
Intersegment revenues	-	26,323	-	-	(26,323)	-
Total revenues from contracts accounted for as derivatives	1,553,895	582,365	12,048	-	(26,323)	2,121,985
Leasing revenues under ASC 840 [3]:	-	-	-	66,779	(65,663)	1,116
Total Revenues	$ 1,735,703	$ 584,400	$ 102,277	$ 77,495	$ (99,452)	$ 2,400,423

(1) Revenues include certain items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These revenue transactions are now presented on a gross basis in product revenues. These revenue transactions total $5.5 million and $14.5 million for the three and nine months ended September 30, 2019, respectively, and $6.7 million and $21.1 million for the three and nine months ended September 30, 2018, respectively.

(2) Revenues from contracts accounted for as derivatives represent physically settled derivative sales that are outside the scope of ASC 606, *Revenue from Contracts with Customers* (ASC 606), where the company recognizes revenue when control of the inventory is transferred within the meaning of ASC 606 as required by ASC 610-20, *Gains and Losses from the Derecognition of Nonfinancial Assets*.

(3) Leasing revenues do not represent revenues recognized from contracts with customers under ASC 606, and are accounted for under ASC 842, *Leases* for 2019 and ASC 840, *Leases* for 2018.

Payment Terms

The company has standard payment terms, which vary depending upon the nature of the services provided, with the majority falling within 10 to 30 days after transfer of control or completion of services. In instances where the timing of revenue recognition differs from the timing of invoicing, the company has determined that contracts generally do not include a significant financing component.

Contract Liabilities

The company records unearned revenue when consideration is received, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of service and lease agreements. Unearned revenue from service agreements, which represents a contract liability, is recorded for fees that have been charged to the customer prior to the completion of performance obligations. Unearned revenue is generally recognized in the subsequent quarter and is not material to the company. The company expects to recognize all of the unearned revenue associated with service agreements as of September 30, 2019, in the subsequent quarter when the inventory is withdrawn from the partnership's tank storage.

3. ACQUISITIONS, DISPOSITIONS AND DISCONTINUED OPERATIONS

ACQUISITIONS

Acquisition of Cattle Feeding Operations – Bartlett Cattle Company, L.P.

On August 1, 2018, the company acquired two cattle-feeding operations from Bartlett Cattle Company, L.P. for $16.2 million, plus working capital of approximately $106.6 million primarily consisting of work-in-process inventory. The transaction included the feed yards located in Sublette, Kansas and Tulia, Texas, which added combined feedlot capacity of 97,000 head of cattle to the company's operations. The transaction was financed using cash on hand and proceeds from the

Green Plains Cattle senior secured asset-based revolving credit facility. There were no material acquisition costs recorded for the acquisition.

The following is a summary of the assets acquired and liabilities assumed (in thousands):

Amounts of Identifiable Assets Acquired and Liabilities Assumed		
Accounts receivable	$	1,897
Inventory		104,809
Property and equipment, net		16,190
Current liabilities		(118)
Total identifiable net assets	$	122,778

The amounts above reflect the final purchase price allocation, which included working capital true-up payments by the company of $0.9 million made during the third quarter of 2018. After the disposition of GPCC, the assets and liabilities of the acquired feedlots were reclassified as discontinued operations. See *Disposition of Green Plains Cattle Company LLC* described below.

DISPOSITIONS

Disposition of Fleischmann's Vinegar

On November 27, 2018, the company and Green Plains II LLC, an indirect wholly-owned subsidiary of the company, completed the sale of Fleischmann's Vinegar Company, Inc. to Kerry Holding Co. ("Kerry"). The company received as net consideration from Kerry $354.0 million in cash and restricted cash, including net working capital adjustments. The divested assets were reported within the company's food and ingredients segment. The company recorded a pre-tax gain on the sale of Fleischmann's Vinegar of $58.2 million, including offsetting related transaction costs of $7.4 million within the corporate segment.

The assets and liabilities of Fleischmann's Vinegar at closing on November 27, 2018 were as follows (in thousands):

Amounts of Identifiable Assets Disposed and Liabilities Relinquished		
Cash	$	2,107
Accounts receivable, net		16,142
Inventory		15,167
Prepaid expenses and other		853
Property and equipment		64,552
Other assets		79,389
Current liabilities		(8,837)
Deferred tax liabilities		(26,617)
Total identifiable net assets		142,756
Goodwill		142,002
Net assets disposed	$	284,758

The amounts above reflect the preliminary working capital true-up payments made to and received from Kerry, including a working capital payment made to and received from Kerry of $0.3 million and $0.3 million during the first and third quarters of 2019, respectively.

Disposition of Bluffton, Lakota and Riga Ethanol Plants

On November 15, 2018, the company completed the sale of three ethanol plants located in Bluffton, Indiana, Lakota, Iowa, and Riga, Michigan, and certain related assets from subsidiaries, to Valero Renewable Fuels Company, LLC ("Valero") for the sale price of $323.2 million, including net working capital and other adjustments. Correspondingly, the partnership's storage assets located adjacent to such plants were sold to Green Plains Inc. for $120.9 million. The company received as consideration from Valero approximately $323.2 million, while the partnership received as consideration from the company 8.7 million partnership units and a portion of the general partner interest equating to 0.2 million equivalent limited

partner units to maintain the general partner's 2% interest. In addition, the partnership also received additional consideration of approximately $2.7 million from Valero for the assignment of certain railcar operating leases. The divested assets were reported within the company's ethanol production, agribusiness and energy services and partnership segments. The company recorded a pre-tax gain on the sale of the three ethanol plants of $92.2 million, of which $89.5 million was recorded within the corporate segment and $2.7 million was recorded within the partnership segment, including offsetting transaction costs of $4.2 million, of which $3.7 million were recorded within the corporate segment and $0.5 million were recorded within the partnership segment.

The assets and liabilities of the Bluffton, Lakota and Riga ethanol plants at closing on November 15, 2018 are as follows (in thousands):

Amounts of Identifiable Assets Disposed and Liabilities Relinquished		
Inventory	$	36,812
Prepaid expenses and other		189
Property and equipment		184,970
Other assets		1,717
Current liabilities		(746)
Other liabilities		(4,706)
Total identifiable net assets		218,236
Goodwill		6,188
Net assets disposed	$	224,424

The amounts above reflect the final working capital true-up payments by Valero of $3.4 million received during the first quarter of 2019.

Disposition of Green Plains Cattle Company LLC

On September 9, 2019, Green Plains, TGAM and StepStone announced the formation of a joint venture. Such parties entered into the LLC Agreement, effective as of September 1, 2019. GPCC was previously a wholly owned subsidiary of Green Plains. Green Plains also entered into a Securities Purchase Agreement with TGAM and StepStone, whereby TGAM and StepStone purchased an aggregate of 50% of the membership interests of GPCC from Green Plains for approximately $77.2 million in cash, plus post-closing adjustments. There was no gain or loss recorded as part of this transaction. The LLC Agreement contains certain earn-out or bonus provisions to be paid by or received from GPCC if certain EBITDA thresholds are met. The company does not believe these are reasonably estimable and therefore has not recorded these amounts in the consolidated financial statements.

Under the LLC Agreement, Green Plains has certain rights and obligations, including but not limited to, the right or obligation: (i) to designate two Managers to the Board of Managers of GPCC (the "Board"), or in the event the size of the Board is increased, the number of Managers equal to two-fifths of the Board, rounded up, and (ii) to fund additional capital contributions in accordance with their percentage interest upon mutual agreement by Green Plains, TGAM and StepStone. Additionally, TGAM and StepStone both have the right or obligation to designate one Manager, or in the event the size of the Board is increased, the number of Managers equal to one-fifths of the Board, rounded up. Each Manager serving on the Board shall have one vote and a majority of the Managers serving on the Board shall constitute a quorum for the transaction of business of the Board. Green Plains' allocation under the LLC Agreement will be subject to certain adjustments.

The assets and liabilities of the GPCC at closing on September 1, 2019 are as follows (in thousands):

Amounts of Identifiable Assets Disposed and Liabilities Relinquished		
Cash	$	2
Accounts receivable, net		17,920
Inventory		387,534
Derivative financial instruments		48,189
Property and equipment		71,678
Other assets		2,291
Current liabilities		(49,297)
Short-term notes payable and other borrowings		(38)
Current maturities of long-term debt		(324,028)
Long-term debt		(80)
Other liabilities		(403)
Total identifiable net assets disposed	$	153,768

DISCONTINUED OPERATIONS

After closing, GPCC is no longer consolidated in the company's consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. Additionally, the company concluded that the disposition of GPCC met the requirements under *ASC 205-20.* As such, GPCC results for the three and nine months ended September 30, 2019 and 2018 are classified as discontinued operations. Furthermore, the related assets and liabilities of GPCC have been presented as discontinued operations on the December 31, 2018 consolidated balance sheet. Financial results of GPCC were previously recorded within the food and ingredients segment.

Assets and Liabilities in the Consolidated Balance Sheet Attributable to Discontinued Operations

The following table presents assets and liabilities associated with our discontinued operations.

		December 31, 2018
Assets		
Cash and cash equivalents	$	2
Restricted cash		34,909
Accounts receivable, net of allowances		11,860
Inventories		432,283
Prepaid expenses and other		345
Current assets of discontinued operations	$	479,399
Property and equipment, net of accumulated depreciation and amortization	$	71,341
Other assets		1,719
Noncurrent assets of discontinued operations	$	73,060
Liabilities		
Accounts payable	$	21,072
Accrued and other liabilities		6,410
Derivative financial instruments		16,924
Short-term notes payable and other borrowings		374,492
Current maturities of long-term debt		38
Current liabilities of discontinued operations	$	418,936
Long-term debt	$	80
Other liabilities		2
Noncurrent liabilities of discontinued operations	$	82

Summarized Results of Discontinued Operations

The following table presents the results of our discontinued operations for the periods presented. GPCC was disposed of on September 1, 2019, as such operational results through August 31, 2019 are included in the fiscal year 2019 amounts presented below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019 (1)	**2018 (1)**	**2019 (1)**	**2018 (1)**
Product revenues	$ 160,113	$ 217,708	$ 638,122	$ 652,950
Costs and expenses				
Cost of goods sold (excluding depreciation and amortization expenses reflected below)	150,214	209,922	614,671	622,461
Selling, general and administrative expenses	1,472	1,906	5,931	5,184
Depreciation and amortization expenses	1,004	1,447	4,199	3,840
Total costs and expenses	152,690	213,275	624,801	631,485
Operating income	7,423	4,433	13,321	21,465
Other income (expense)				
Interest income	42	45	182	83
Interest expense	(3,001)	(3,696)	(12,417)	(9,218)
Other, net	-	-	-	2,591
Total other expense	(2,959)	(3,651)	(12,235)	(6,544)
Income before income taxes	4,464	782	1,086	14,921
Income tax expense	(1,071)	(315)	(120)	(3,086)
Net income	$ 3,393	$ 467	$ 966	$ 11,835

(1) Product revenues, costs of goods sold and selling, general and administrative expenses include certain revenue and expense items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These revenue and costs of goods sold transactions total \$5.5 million and \$14.5 million for the three and nine months ended September 30, 2019, respectively, and \$6.7 million and \$21.1 million for the three and nine months ended September 30, 2018, respectively.

4. FAIR VALUE DISCLOSURES

The following methods, assumptions and valuation techniques were used in estimating the fair value of the company's financial instruments:

Level 1 – unadjusted quoted prices in active markets for identical assets or liabilities the company can access at the measurement date.

Level 2 – directly or indirectly observable inputs such as quoted prices for similar assets or liabilities in active markets other than quoted prices included within Level 1, quoted prices for identical or similar assets in markets that are not active, and other inputs that are observable or can be substantially corroborated by observable market data through correlation or other means. Grain inventories held for sale in the agribusiness and energy services segment are valued at nearby futures values, plus or minus nearby basis.

Level 3 – unobservable inputs that are supported by little or no market activity and comprise a significant component of the fair value of the assets or liabilities. The company currently does not have any recurring Level 3 financial instruments.

Derivative contracts include exchange-traded commodity futures and options contracts and forward commodity purchase and sale contracts. Exchange-traded futures and options contracts are valued based on unadjusted quoted prices in active markets and are classified in Level 1. The majority of the company's exchange-traded futures and options contracts are cash-settled on a daily basis.

There have been no changes in valuation techniques and inputs used in measuring fair value. The company's assets and liabilities by level are as follows (in thousands):

	Fair Value Measurements at September 30, 2019		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
Assets:			
Cash and cash equivalents	$ 235,537	$ -	$ 235,537
Restricted cash	18,502	-	18,502
Inventories carried at market	-	62,230	62,230
Unrealized gains on derivatives	-	13,089	13,089
Other assets	113	4	117
Total assets measured at fair value	$ 254,152	$ 75,323	$ 329,475
Liabilities:			
Accounts payable [1]	$ -	$ 27,038	$ 27,038
Unrealized losses on derivatives	-	14,564	14,564
Other	-	1	1
Total liabilities measured at fair value	$ -	$ 41,603	$ 41,603

	Fair Value Measurements at December 31, 2018		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
Assets:			
Cash and cash equivalents	$ 251,681	$ -	$ 251,681
Restricted cash	31,603	-	31,603
Inventories carried at market	-	111,960	111,960
Unrealized gains on derivatives	-	9,976	9,976
Other assets	114	1	115
Cash, cash equivalents and restricted cash of discontinued operations [2]	34,911	-	34,911
Total assets measured at fair value	$ 318,309	$ 121,937	$ 440,246
Liabilities:			
Accounts payable [1]	$ -	$ 16,573	$ 16,573
Unrealized losses on derivatives	-	7,852	7,852
Other liabilities	-	2	2
Total liabilities measured at fair value	$ -	$ 24,427	$ 24,427

(1) Accounts payable is generally stated at historical amounts with the exception of $27.0 million and $16.6 million at September 30, 2019 and December 31, 2018, respectively, related to certain delivered inventory for which the payable fluctuates based on changes in commodity prices. These payables are hybrid financial instruments for which the company has elected the fair value option.

(2) Includes $2 thousand of cash and cash equivalents and $34.9 million of restricted cash which is classified as current assets of discontinued operations in the December 31, 2018 consolidated balance sheet.

The company believes the fair value of its debt approximated book value, which was $530.4 million at September 30, 2019 and $516.6 million at December 31, 2018. The company estimated the fair value of its outstanding debt using Level 2 inputs. The company believes the fair values of its accounts receivable approximated book value, which was $64.3 million and $88.5 million at September 30, 2019 and December 31, 2018, respectively.

Although the company currently does not have any recurring Level 3 financial measurements, the fair values of tangible assets and goodwill acquired and the equity component of convertible debt represent Level 3 measurements which were derived using a combination of the income approach, market approach and cost approach for the specific assets or liabilities being valued.

5. SEGMENT INFORMATION

The company reports the financial and operating performance for the following four operating segments: (1) ethanol production, which includes the production of ethanol, distillers grains and corn oil, (2) agribusiness and energy services, which includes grain handling and storage, commodity marketing and merchant trading for company-produced and third-party ethanol, distillers grains, corn oil, natural gas and other commodities, (3) food and ingredients, which includes food-grade corn oil and vinegar production until the sale of Fleischmann's Vinegar during the fourth quarter of 2018 and (4) partnership, which includes fuel storage and transportation services.

Corporate activities include selling, general and administrative expenses, consisting primarily of compensation, professional fees and overhead costs not directly related to a specific operating segment.

During the normal course of business, the operating segments conduct business with each other. For example, the agribusiness and energy services segment procures grain and natural gas and sells products, including ethanol, distillers grains and corn oil for the ethanol production segment. The partnership segment provides fuel storage and transportation services for the ethanol production segment. These intersegment activities are treated like third-party transactions with origination, marketing and storage fees charged at estimated market values. Consequently, these transactions affect segment performance; however, they do not impact the company's consolidated results since the revenues and corresponding costs are eliminated.

The following tables set forth certain financial data for the company's operating segments, excluding amounts related to discontinued operations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019 (1)	**2018** (1)	**2019** (1)	**2018** (1)
Revenues:				
Ethanol production:				
Revenues from external customers	$ 484,382	$ 576,475	$ 1,206,107	$ 1,735,546
Intersegment revenues	24	37	75	157
Total segment revenues	484,406	576,512	1,206,182	1,735,703
Agribusiness and energy services:				
Revenues from external customers	146,650	177,832	488,687	558,054
Intersegment revenues	7,293	9,150	19,432	26,346
Total segment revenues	153,943	186,982	508,119	584,400
Food and ingredients:				
Revenues from external customers	-	33,443	1,451	102,277
Intersegment revenues	-	-	-	-
Total segment revenues	-	33,443	1,451	102,277
Partnership:				
Revenues from external customers	1,318	1,298	5,315	4,546
Intersegment revenues	18,836	24,472	56,751	72,949
Total segment revenues	20,154	25,770	62,066	77,495
Revenues including intersegment activity	658,503	822,707	1,777,818	2,499,875
Intersegment eliminations	(26,153)	(33,659)	(76,258)	(99,452)
Revenues as reported	$ 632,350	$ 789,048	$ 1,701,560	$ 2,400,423

(1) Revenues include certain items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These revenue transactions are now presented on a gross basis in product revenues. These revenue transactions total $5.5 million and $14.5 million for the three and nine months ended September 30, 2019, respectively, and $6.7 million and $21.1 million for the three and nine months ended September 30, 2018, respectively.

Refer to *Note 2 - Revenue*, for further disaggregation of revenue by operating segment.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019 (1)	2018 (1)	2019 (1)	2018 (1)
Cost of goods sold:				
Ethanol production	$ 512,527	$ 560,719	$ 1,289,366	$ 1,706,891
Agribusiness and energy services	150,465	179,432	486,305	546,318
Food and ingredients	3	26,228	1,526	79,894
Partnership	-	-	-	-
Intersegment eliminations	(30,866)	(33,299)	(76,716)	(99,189)
	$ 632,129	$ 733,080	$ 1,700,481	$ 2,233,914

(2) Cost of goods sold include certain items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These cost of goods sold transactions are now presented gross in cost of goods sold. These cost of goods sold transactions total $5.5 million and $14.4 million for the three and nine months ended September 30, 2019, respectively, and $6.6 million and $21.0 million for the three and nine months ended September 30, 2018, respectively.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Operating income (loss):				
Ethanol production	$ (49,289)	$ (15,961)	$ (147,366)	$ (60,704)
Agribusiness and energy services	(461)	2,850	9,184	22,080
Food and ingredients	(6)	3,892	(76)	12,426
Partnership	12,322	16,725	38,029	48,214
Intersegment eliminations	4,738	(325)	533	(113)
Corporate activities	(9,669)	(10,965)	(27,952)	(34,879)
	$ (42,365)	$ (3,784)	$ (127,648)	$ (12,976)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Depreciation and amortization:				
Ethanol production	$ 15,547	$ 24,289	$ 46,324	$ 65,284
Agribusiness and energy services	541	675	1,642	1,923
Food and ingredients	-	2,333	-	6,788
Partnership	991	1,120	2,747	3,406
Corporate activities	749	849	2,250	2,769
	$ 17,828	$ 29,266	$ 52,963	$ 80,170

The following table sets forth total assets by operating segment (in thousands):

	September 30, 2019	December 31, 2018
Total assets (1):		
Ethanol production	$ 873,793	$ 872,845
Agribusiness and energy services	368,146	399,633
Partnership	102,497	67,297
Corporate assets	354,371	334,236
Assets of discontinued operations	-	552,459
Intersegment eliminations	(6,736)	(10,038)
	$ 1,692,071	$ 2,216,432

(1) Asset balances by segment exclude intercompany balances.

6. INVENTORIES

Inventories are carried at the lower of cost or net realizable value, except grain held for sale and fair-value hedged inventories. Commodities held for sale are reported at market value.

The components of inventories are as follows (in thousands):

	September 30, 2019	December 31, 2018
Finished goods	$ 119,711	$ 99,566
Commodities held for sale	26,181	62,896
Raw materials	58,699	98,174
Work-in-process	13,640	12,680
Supplies and parts	32,383	29,284
	$ 250,614	$ 302,600

7. GOODWILL

Effective January 1, 2018, we early adopted the amended guidance in ASC Topic 350, *Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment*, which simplifies the measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the amended guidance, an entity may first assess qualitative factors to determine whether it is necessary to perform a quantitative goodwill impairment test. If determined to be necessary, the quantitative impairment test shall be used to identify goodwill impairment and measure the amount of a goodwill impairment loss to be recognized (if any).

The company currently has two reporting units, to which goodwill is assigned. We are required to perform impairment tests related to our goodwill annually, which we perform as of October 1, or sooner if an indicator of impairment occurs. Near term industry outlook and the decline in our stock price caused a decline in the company's market capitalization during the three months ended September 30, 2019. As such, the company determined a triggering event had occurred that required an interim impairment assessment for its ethanol production reporting unit. Due to the impairment indicators noted as a result of these triggering events, we evaluated our goodwill as of September 30, 2019. Significant assumptions inherent in the valuation methodologies for goodwill are employed and include, but are not limited to, prospective financial information, growth rates, discount rates, inflationary factors, and cost of capital. Based on our quantitative evaluation, we determined that the fair value of the ethanol production reporting unit exceeded its carrying value. As a result, we concluded that the goodwill assigned to the ethanol production reporting unit was not impaired, but could be at risk of future impairment. We continue to believe that our long-term financial goals will be achieved.

8. DERIVATIVE FINANCIAL INSTRUMENTS

At September 30, 2019, the company's consolidated balance sheet reflected unrealized losses of $11.8 million, net of tax, in accumulated other comprehensive income. The company expects these amounts to be reclassified as operating income over the next 12 months as a result of hedged transactions that are forecasted to occur. The amount realized in operating income will differ as commodity prices change.

Fair Values of Derivative Instruments

The fair values of the company's derivative financial instruments and the line items on the consolidated balance sheets where they are reported are as follows (in thousands):

	Asset Derivatives' Fair Value		Liability Derivatives' Fair Value	
	September 30, 2019 (1)	December 31, 2018 (2)	September 30, 2019	December 31, 2018
Derivative financial instruments	$ 13,089	$ 9,976	$ 14,564	$ 7,852
Other assets	4	1	-	-
Other liabilities	-	-	1	2
Total	$ 13,093	$ 9,977	$ 14,565	$ 7,854

(1) At September 30, 2019, derivative financial instruments, as reflected on the balance sheet, includes net unrealized gains on exchange traded futures and options contracts of $16.5 million, which include $0.2 million of net unrealized losses on derivative financial instruments designated as cash flow hedging instruments.
(2) At December 31, 2018, derivative financial instruments, as reflected on the balance sheet, includes net unrealized gains on exchange traded futures and options contracts of $16.3 million.

Refer to *Note 4 - Fair Value Disclosures*, which contains fair value information related to derivative financial instruments.

Effect of Derivative Instruments on Consolidated Balance Sheets, Consolidated Statements of Operations and Consolidated Statements of Comprehensive Income

The gains or losses recognized in income and other comprehensive income related to the company's derivative financial instruments and the line items on the consolidated financial statements where they are reported are as follows (in thousands):

Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenues	$ -	$ 4,766	$ -	$ 3,648
Cost of goods sold	-	1,331	-	1,258
Net income from discontinued operations, net of income taxes	66,700	(7,944)	48,797	(5,204)
Net gain (loss) recognized in loss before tax	$ 66,700	$ (1,847)	$ 48,797	$ (298)

Gain (Loss) Recognized in Other Comprehensive Income on Derivatives	Gain or (Loss) Recognized in Other Comprehensive Income on Derivatives			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Commodity contracts	$ 33,244	$ (18,709)	$ 67,425	$ (1,865)

Derivatives Not Designated as Hedging Instruments	Location of Gain or (Loss) Recognized in Income on Derivatives	Amount of Gain or (Loss) Recognized in Income on Derivatives			
		Three Months Ended September 30,		Nine Months Ended September 30,	
		2019	2018	2019	2018
Commodity contracts	Revenues	$ 12,439	$ 2,491	$ (12,034)	$ 6,135
Commodity contracts	Costs of goods sold	5,465	9,987	(1,484)	12,550
Commodity contracts	Net income from discontinued operations, net of income taxes	(2,285)	(3,595)	(2,470)	(1,716)
Net gain (loss) recognized in loss before tax		$ 15,619	$ 8,883	$ (15,988)	$ 16,969

The following amounts were recorded on the consolidated balance sheets related to cumulative basis adjustments for the fair value hedged items (in thousands):

Line Item in the Consolidated Balance Sheet in Which the Hedged Item is Included	September 30, 2019		December 31, 2018	
	Carrying Amount of the Hedged Assets	Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets	Carrying Amount of the Hedged Assets	Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets
Inventories	$ 41,356	$ (2,445)	$ 89,188	$ 2,430

Effect of Cash Flow and Fair Value Hedge Accounting on the Statements of Operations

The effect of cash flow and fair value hedges and the line items on the consolidated statements of operations where they are reported are as follows (in thousands):

	Location and Amount of Gain or (Loss) Recognized in Income on Cash Flow and Fair Value Hedging Relationships for the Three Months Ended September 30,					
	2019			2018		
	Revenue	Cost of Goods Sold	Income from Discontinued Operations, Net of Income Taxes	Revenue	Cost of Goods Sold	Income from Discontinued Operations, Net of Income Taxes
Gain (loss) on cash flow hedging relationships:						
Commodity contracts:						
Amount of gain (loss) reclassified from accumulated other comprehensive income into income	$ -	$ -	$ 66,700	$ 4,766	$ 1,331	$ (7,944)
Gain (loss) on fair value hedging relationships:						
Commodity contracts:						
Hedged item	-	1,155	-	-	(346)	-
Derivatives designated as hedging instruments	-	(3,263)	-	-	(186)	-
Total amounts of income and expense line items presented in the statement of operations in which the effects of cash flow or fair value hedges are recorded	$ -	$ (2,108)	$ 66,700	$ 4,766	$ 799	$ (7,944)

	Location and Amount of Gain Recognized in Income on Cash Flow and Fair Value Hedging Relationships for the Nine Months Ended September 30,					
	2019			2018		
	Revenue	Cost of Goods Sold	Income from Discontinued Operations, Net of Income Taxes	Revenue	Cost of Goods Sold	Income from Discontinued Operations, Net of Income Taxes
Gain (loss) on cash flow hedging relationships:						
Commodity contracts:						
Amount of gain reclassified from accumulated other comprehensive income into income	$ -	$ -	$ 48,797	$ 3,648	$ 1,258	$ (5,204)
Gain (loss) on fair value hedging relationships:						
Commodity contracts:						
Hedged item	-	324	-	-	10,150	-
Derivatives designated as hedging instruments	-	1,168	-	-	(9,064)	-
Total amounts of income and expense line items presented in the statement of operations in which the effects of cash flow or fair value hedges are recorded	$ -	$ 1,492	$ 48,797	$ 3,648	$ 2,344	$ (5,204)

There were no gains or losses from discontinuing cash flow or fair value hedge treatment during the three and nine months ended September 30, 2019 and 2018.

The open commodity derivative positions as of September 30, 2019, are as follows (in thousands):

Derivative Instruments	Exchange Traded [1] Net Long & (Short)	Non-Exchange Traded [2] Long	Non-Exchange Traded [2] (Short)	Unit of Measure	Commodity
Futures	(12,185)			Bushels	Corn, Soybeans and Wheat
Futures	(4,620)[3]			Bushels	Corn
Futures	136,206			Gallons	Ethanol
Futures	(6,300)[4]			Gallons	Ethanol
Futures	(1,123)			MmBTU	Natural Gas
Futures	(11,045)[3]			MmBTU	Natural Gas
Options	765			Bushels	Corn and Soybeans
Options	(55,815)			Gallons	Ethanol
Options	196			MmBTU	Natural Gas
Forwards		33,986	(518)	Bushels	Corn and Soybeans
Forwards		23,970	(478,004)	Gallons	Ethanol
Forwards		126	(730)	Tons	DDG
Forwards		192	(54,313)	Pounds	Corn Oil
Forwards		12,841	(3,095)	MmBTU	Natural Gas

(1) Exchange traded futures and options are presented on a net long and (short) position basis. Options are presented on a delta-adjusted basis.
(2) Non-exchange traded forwards are presented on a gross long and (short) position basis including both fixed-price and basis contracts.
(3) Futures or non-exchange traded forwards used for fair value hedges.
(4) Futures used for cash flow hedges.

Energy trading contracts that do not involve physical delivery are presented net in revenues on the consolidated statements of operations. Included in revenues are net gains on energy trading contracts of $2.1 million and $11.4 million for the three and nine months ended September 30, 2019, respectively and net gains on energy trading contracts of $1.6 million and $12.4 million for the three and nine months ended September 30, 2018, respectively.

9. DEBT

The components of long-term debt are as follows (in thousands):

	September 30, 2019	December 31, 2018
Corporate:		
3.25% convertible notes due 2019	$ -	$ 53,457
4.125% convertible notes due 2022	147,562	142,708
4.00% convertible notes due 2024	82,191	-
Green Plains Partners:		
$200.0 million revolving credit facility [1]	132,000	134,000
$8.1 million promissory note	8,100	8,100
Other	16,602	17,804
Total face value of long-term debt	386,455	356,069
Unamortized debt issuance costs	(5,167)	(3,190)
Less: current maturities of long-term debt	(132,999)	(54,769)
Total long-term debt	$ 248,289	$ 298,110

(1) The Green Plains Partners revolving credit facility is included in current maturities of long-term debt balance on the consolidated balance sheet as of September 30, 2019 as its maturity date is July 1, 2020.

The components of short-term notes payable and other borrowings are as follows:

	September 30, 2019	December 31, 2018
Green Plains Cattle:		
$500.0 million revolver [1]	$ -	$ -
Green Plains Trade:		
$300.0 million revolver	119,625	108,485
Green Plains Grain:		
$100.0 million revolver	20,000	41,000
$50.0 million inventory financing	4,040	-
Green Plains Commodity Management:		
$20.0 million hedge line	5,478	14,266
	$ 149,143	$ 163,751

(1) As part of the GPCC disposition during the three months ended September 30, 2019, the December 31, 2018 outstanding balance of the Green Plains Cattle revolver of $374.5 million has been reclassified to current liabilities of discontinued operations. Refer to *Note 3 – Acquisitions, Dispositions and Discontinued Operations* for further discussion on discontinued operations.

Corporate Activities

On June 21, 2019, the company issued $105.0 million of 4.00% convertible senior notes due in 2024, or the 4.00% notes. The company used approximately $57.8 million of the net proceeds to repurchase the $56.8 million outstanding principal amount of its 3.25% convertible senior notes due October 1, 2019 in cash, including accrued and unpaid interest, in privately negotiated transactions concurrently with the offering of the 4.00% notes. On July 19, 2019, the company closed on the issuance of an additional $10.0 million aggregate principal amount of the 4.00% notes (the "Option Notes") to the initial purchasers. The Option Notes have the same terms as the 4.00% notes issued on June 21, 2019, and were issued under the same Indenture dated as of June 21, 2019. After the issuance of the Option Notes, total aggregate principal of the 4.00% notes outstanding is $115.0 million.

At issuance, the company separately accounted for the liability and equity components of the 3.25% convertible notes by bifurcating the gross proceeds between the indebtedness, or liability component, and the embedded conversion option, or

equity component, by estimating an effective interest rate on the date of issuance for similar notes. The embedded conversion option was recorded in stockholders' equity. Since the company did not exercise the embedded conversion option associated with the notes, pursuant to the guidance within ASC 470, *Debt*, the company recorded a loss upon extinguishment of $1.6 million, measured by the difference between the fair value and carrying value of the liability portion of the notes. As a result, the company recorded a charge to interest expense in the consolidated financial statements of approximately $1.6 million during the three months ended June 30, 2019. This charge included $0.1 million of unamortized debt issuance costs related to the principal balance extinguished. The remaining settlement consideration transferred was allocated to the reacquisition of the embedded conversion option and recognized as a reduction of additional paid-in capital.

The 4.00% notes are senior, unsecured obligations of the company, with interest payable on January 1 and July 1 of each year, beginning January 1, 2020, at a rate of 4.00% per annum. The 4.00% notes will mature on July 1, 2024, unless earlier converted, redeemed or repurchased. The 4.00% notes will be convertible, at the option of the holders, into consideration consisting of, at the company's election, cash, shares of the company's common stock, or a combination of cash and shares of the company's common stock until the close of business on the scheduled trading day immediately preceding the maturity date. However, before January 1, 2024, the 4.00% notes will not be convertible unless certain conditions are satisfied. The initial conversion rate is 64.1540 shares of common stock per $1,000 of principal, which is equal to a conversion price of approximately $15.59 per share. The conversion rate will be subject to adjustment upon the occurrence of certain events. In addition, the company may be obligated to increase the conversion rate for any conversion that occurs in connection with certain corporate events, including the company's calling the 4.00% notes for redemption.

On and after July 1, 2022, and prior to the maturity date, the company may redeem all, but not less than all, of the 4.00% notes for cash if the sale price of the company's common stock equals or exceeds 140% of the applicable conversion price for a specified time period ending on the trading day immediately prior to the date the company delivers notice of the redemption. The redemption price will equal 100% of the principal amount of the 4.00% notes to be redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date. In addition, upon the occurrence of a fundamental change, holders of the 4.00% notes will have the right, at their option, to require the company to repurchase the 4.00% notes in cash at a price equal to 100% of the principal amount of the 4.00% notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

In August 2016, the company issued $170.0 million of 4.125% convertible senior notes due in 2022, or the 4.125% notes. The 4.125% notes are senior, unsecured obligations of the company, with interest payable on March 1 and September 1 of each year. The company may settle the 4.125% notes in cash, common stock or a combination of cash and common stock.

Prior to March 1, 2022, the 4.125% notes are not convertible unless certain conditions are satisfied. The initial conversion rate is 35.7143 shares of common stock per $1,000 of principal, which is equal to a conversion price of approximately $28.00 per share. The conversion rate is subject to adjustment upon the occurrence of certain events, including upon redemption of the 4.125% notes.

The company may redeem all, but not less than all, of the 4.125% notes at any time on or after September 1, 2020, if the company's common stock equals or exceeds 140% of the applicable conversion price for a specified time period ending on the trading day immediately prior to the date the company delivers notice of the redemption. The redemption price will equal 100% of the principal plus any accrued and unpaid interest. Holders of the 4.125% notes have the option to require the company to repurchase the 4.125% notes in cash at a price equal to 100% of the principal plus accrued and unpaid interest when there is a fundamental change, such as change in control. If an event of default occurs, it could result in the 4.125% notes being declared due and payable.

Ethanol Production Segment

The company has small equipment financing loans, finance leases on equipment or facilities, and other forms of debt financing.

Agribusiness and Energy Services Segment

Green Plains Trade has a $300.0 million senior secured asset-based revolving credit facility to finance working capital for marketing and distribution activities based on eligible collateral equal to the sum of percentages of eligible receivables and inventories, less miscellaneous adjustments. The credit facility matures on July 28, 2022 and consists of a $285 million credit facility and a $15 million first-in-last-out (FILO) credit facility, and includes an accordion feature that enables the credit facility to be increased by up to $70.0 million with agent approval. Advances are subject to variable interest rates equal

to daily LIBOR plus 2.25% on the credit facility and daily LIBOR plus 3.25% on the FILO credit facility. The total unused portion of the revolving credit facility is also subject to a commitment fee of 0.375% per annum.

The terms impose affirmative and negative covenants for Green Plains Trade, including maintaining a minimum fixed charge coverage ratio of 1.15 to 1.00. Capital expenditures are limited to $1.5 million per year under the credit facility. The credit facility also restricts distributions related to capital stock, with an exception for distributions up to 50% of net income if, on a pro forma basis, (a) availability has been greater than $10.0 million for the last 30 days and (b) the borrower would be in compliance with the fixed charge coverage ratio on the distribution date.

Green Plains Grain has a senior secured asset-based revolving credit facility, which was amended on June 28, 2019, to extend the existing maturity date from July 26, 2019 to June 28, 2022 and lower the maximum commitment from $125.0 million to $100.0 million. The credit facility finances working capital up to the maximum commitment based on eligible collateral equal to the sum of percentages of eligible cash, receivables and inventories, less miscellaneous adjustments. Advances are subject to an interest rate equal to LIBOR plus 3.00% or the lenders' base rate plus 2.00%. The credit facility also includes an accordion feature that enables the facility to be increased by up to $75.0 million with agent approval. The credit facility can also be increased by up to $50.0 million for seasonal borrowings. Total commitments outstanding cannot exceed $225.0 million. Depending on utilization, the total unused portion of the $100.0 million revolving credit facility is also subject to a commitment fee ranging from 0.375% to 0.50%.

Lenders receive a first priority lien on certain cash, inventory, accounts receivable and other assets owned by Green Plains Grain. The terms impose affirmative and negative covenants for Green Plains Grain, including maintaining minimum working capital to be the greater of (i) $18,000,000 and (ii) 18% of the sum of the then total commitment plus the aggregate seasonal line commitments. Minimum tangible net worth is required to be greater than 21% of the sum of the then total commitment plus the aggregate seasonal line commitments. The credit facility also requires the company to maintain a maximum annual leverage of 6.00 to 1.00. Capital expenditures are limited to $8.0 million per year under the credit facility, plus equity contributions from the company and unused amounts of up to $8.0 million from the previous year. In addition, if the company has long-term indebtedness on the date of calculation of greater than $10.0 million, the credit facility requires the company to maintain a minimum fixed charge coverage ratio of 1.25 to 1.00 and a maximum long term debt capitalization of 40%. As of September 30, 2019, Green Plains Grain had no long-term indebtedness.

Green Plains Grain has entered into short-term inventory financing agreements with a financial institution. At September 30, 2019, 0.9 million bushels of corn had been designated as collateral under these agreements at initial values totaling $3.8 million. The company has accounted for the agreements as short-term notes, rather than sales, and has elected the fair value option to offset fluctuations in market prices of the inventory. At September 30, 2019, the short-term notes payable were valued at $4.0 million and were measured using Level 2 inputs.

Green Plains Commodity Management has an uncommitted $20.0 million revolving credit facility which matures April 30, 2023 to finance margins related to its hedging programs. Advances are subject to variable interest rates equal to LIBOR plus 1.75%.

Food and Ingredients Segment

On August 28, 2019, GPCC entered into an amended and restated $500 million senior secured asset-based revolving credit facility with a group of lenders led by Bank of the West and ING Capital LLC which was conditional upon the closing and formation of the GPCC joint venture which became effective on September 1, 2019. The amended and restated agreement includes revisions to certain covenants including the calculations of tangible net worth, restricted payments and excess cash reserves. The amended and restated agreement also updated the definition of a change in control as Green Plains owning less than 35% of GPCC, which previously had been Green Plains owning less than 100% of GPCC.

The December 31, 2018 outstanding balance of GPCC's senior secured asset-based revolving credit facility has been reclassified to current liabilities of discontinued operations. Upon the disposition of GPCC, the food and ingredient segment no longer records any forms of debt financing. Refer to *Note 3 – Acquisitions, Dispositions and Discontinued Operations* for further discussion on the disposition and discontinued operations classification.

Partnership Segment

Green Plains Partners, through a wholly owned subsidiary, has a $200.0 million revolving credit facility to fund working capital, acquisitions, distributions, capital expenditures and other general partnership purposes. The credit facility matures on July 1, 2020, and as a result, was reclassified to current maturities of long-term debt during the three months ended

September 30, 2019. Advances under the credit facility are subject to a floating interest rate based on the preceding fiscal quarter's consolidated leverage ratio at a base rate plus 1.25% to 2.00% or LIBOR plus 2.25% to 3.00%. The credit facility can be increased by an additional $20.0 million without the consent of the lenders. The unused portion of the credit facility is also subject to a commitment fee of 0.35% to 0.50%, depending on the preceding fiscal quarter's consolidated leverage ratio.

The partnership's obligations under the credit facility are secured by a first priority lien on (i) the capital stock of the partnership's present and future subsidiaries, (ii) all of the partnership's present and future personal property, such as investment property, general intangibles and contract rights, including rights under agreements with Green Plains Trade, and (iii) all proceeds and products of the equity interests of the partnership's present and future subsidiaries and its personal property. The terms impose affirmative and negative covenants including restricting the partnership's ability to incur additional debt, acquire and sell assets, create liens, invest capital, pay distributions and materially amend the partnership's commercial agreements with Green Plains Trade. The credit facility also requires the partnership to maintain a maximum consolidated net leverage ratio of no more than 3.50x and a minimum consolidated interest coverage ratio of no less than 2.75x, each of which is calculated on a pro forma basis with respect to acquisitions and divestitures occurring during the applicable period. The consolidated leverage ratio is calculated by dividing total funded indebtedness minus the lesser of cash in excess of $5.0 million or $30.0 million by the sum of the four preceding fiscal quarters' consolidated EBITDA. The consolidated interest coverage ratio is calculated by dividing the sum of the four preceding fiscal quarters' consolidated EBITDA by the sum of the four preceding fiscal quarters' interest charges.

The partnership, through a wholly owned subsidiary, has promissory notes payable of $8.1 million, which is recorded in long-term debt and current maturities of long-term debt, and a note receivable of $8.1 million, which is recorded in other assets, to execute a New Markets Tax Credit transaction related to the Birmingham, Alabama terminal. Beginning in March 2020, the promissory notes and note receivable each require quarterly principal and interest payments of approximately $0.2 million. The partnership retains the right to call the $8.1 million note receivable in June 2020, which would be correspondingly offset by forgiveness of the note payable. The promissory notes payable and note receivable will be fully amortized upon maturity in September 2031. Income tax credits were generated for the lender, which the company has guaranteed over their statutory life of seven years in the event the credits are recaptured or reduced. At the time of the transaction, the income tax credits were valued at $5.0 million. The partnership has not established a liability in connection with the guarantee because it believes the likelihood of recapture or reduction is remote.

Covenant Compliance

The company was in compliance with its debt covenants as of September 30, 2019.

Restricted Net Assets

At September 30, 2019, there were approximately $63.5 million of net assets at the company's subsidiaries that could not be transferred to the parent company in the form of dividends, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

10. STOCK-BASED COMPENSATION

The company has an equity incentive plan that reserves 4,110,000 shares of common stock for issuance to its directors and employees. The plan provides for shares, including options to purchase shares of common stock, stock appreciation rights tied to the value of common stock, restricted stock, performance shares, and restricted and deferred stock unit awards, to be granted to eligible employees, non-employee directors and consultants. The company measures stock-based compensation at fair value on the grant date, with no adjustments for estimated forfeitures. The company records noncash compensation expense related to equity awards in its consolidated financial statements over the requisite period on a straight-line basis.

Restricted Stock Awards and Deferred Stock Units

The non-vested stock award and deferred stock unit activity for the nine months ended September 30, 2019, is as follows:

	Non-Vested Shares and Deferred Stock Units	Weighted-Average Grant-Date Fair Value	Weighted-Average Remaining Vesting Term (in years)
Non-Vested at December 31, 2018	882,288	$ 19.12	
Granted	497,118	15.40	
Forfeited	(83,811)	17.56	
Vested	(444,054)	18.33	
Non-Vested at September 30, 2019	851,541	$ 17.52	1.7

Performance Shares

On February 19, 2019 and March 19, 2018, the board of directors granted performance shares to be awarded in the form of common stock to certain participants of the plan. Performance shares vest based on the company's average return on net assets (RONA) and the company's total shareholder return (TSR), as further described herein. The performance shares vest on the third anniversary of the grant, if the RONA and TSR criteria are achieved and the participant is then employed by the company. Fifty percent of the performance shares vest based upon the company's ability to achieve a predetermined RONA during the three year performance period. The remaining fifty percent of the performance shares vest based upon the company's total TSR during the three year performance period relative to that of the company's performance peer group.

The performance shares were granted at a target of 100%, but each performance share will reduce or increase depending on results for the performance period for the company's RONA, and the company's TSR relative to that of the performance peer group. If the company's RONA and TSR achieve the maximum goals, the maximum amount of shares available to be issued pursuant to the 2018 and 2019 awards are 482,234 performance shares or 150% of the 321,489 performance shares which remain outstanding. The actual number of performance shares that will ultimately vest is based on the actual percentile ranking of the company's RONA, and the company's TSR compared to the peer performance at the end of the performance period.

The company used the Monte Carlo valuation model to estimate the fair value of the performance shares on the date of the grant. The weighted average assumptions used by the company in applying the Monte Carlo valuation model for performance share grants are illustrated in the following table:

	FY 2019 Performance Awards	FY 2018 Performance Awards
Risk-free interest rate	2.45 %	2.44 %
Dividend yield	3.13 %	2.64 %
Expected volatility	41.69 %	45.11 %
Monte Carlo valuation	99.62 %	97.39 %
Closing stock price on the date of grant	$ 15.34	$ 18.15

The non-vested performance share award activity for the nine months ended September 30, 2019, is as follows:

	Performance Shares	Weighted-Average Grant-Date Fair Value	Weighted-Average Remaining Vesting Term (in years)
Non-Vested at December 31, 2018	134,022	$ 17.92	
Granted	216,703	15.43	
Forfeited	(29,236)	16.23	
Non-Vested at September 30, 2019	321,489	$ 16.39	2.1

Stock Options

There remains 128,750 exercisable stock options outstanding at September 30, 2019, with a weighted-average exercise price of $12.72. The weighted average exercise price for options exercisable at September 30, 2019 was above the company's stock price at September 30, 2019. The weighted-average remaining contractual term of exercisable options was 0.2 years at September 30, 2019.

Option awards allow employees to exercise options through cash payment for the shares of common stock or simultaneous broker-assisted transactions in which the employee authorizes the exercise and immediate sale of the shares in the open market. The company uses newly issued shares of common stock to satisfy its stock-based payment obligations.

Green Plains Partners

Green Plains Partners has a long-term incentive plan (LTIP) intended to promote the interests of the partnership, its general partner and affiliates by providing unit-based incentive compensation awards to employees, consultants and directors to encourage superior performance. The LTIP reserves 2,500,000 common limited partner units for issuance in the form of options, restricted units, phantom units, distribution equivalent rights, substitute awards, unit appreciation rights, unit awards, profit interest units or other unit-based awards. The partnership measures unit-based compensation at fair value on the grant date, with no adjustments for estimated forfeitures. The partnership records noncash compensation expense related to the awards over the requisite service period on a straight-line basis.

The non-vested unit-based awards activity for the nine months ended September 30, 2019, is as follows:

	Non-Vested Shares and Deferred Stock Units	Weighted-Average Grant-Date Fair Value	Weighted-Average Remaining Vesting Term (in years)
Non-Vested at December 31, 2018	18,582	$ 16.96	
Granted	22,856	14.00	
Vested	(18,582)	16.96	
Non-Vested at September 30, 2019	22,856	$ 14.00	0.8

Stock-Based and Unit-Based Compensation Expense

Compensation costs for stock-based and unit-based payment plans during the three and nine months ended September 30, 2019 were approximately $2.6 million and $7.4 million, respectively, and $3.3 million and $8.7 million during the three and nine months ended September 30, 2018. At September 30, 2019, there was $13.6 million of unrecognized compensation costs from stock-based and unit-based compensation related to non-vested awards. This compensation is expected to be recognized over a weighted-average period of approximately 1.8 years. The potential tax benefit related to stock-based payment is approximately 24.8% of these expenses.

11. EARNINGS PER SHARE

Basic earnings per share, or EPS, is calculated by dividing net income available to common stockholders by the weighted average number of common shares outstanding during the period.

The company computed diluted EPS by dividing net income on an if-converted basis, adjusted to add back net interest expense related to the convertible debt instruments, by the weighted average number of common shares outstanding during the period, adjusted to include the shares that would be issued if the convertible debt instruments were converted to common shares and the effect of any outstanding dilutive securities. In addition, due to the presentation of GPCC as discontinued operations, the company has presented basic and diluted earnings per share from both continuing operations and from discontinued operations.

The basic and diluted EPS are calculated as follows (in thousands, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Numerator:				
Net loss from continuing operations [1]	$ (42,363)	$ (12,936)	$ (128,077)	$ (49,415)
Net income from discontinued operations	3,393	467	966	11,835
Net loss attributable to Green Plains	$ (38,970)	$ (12,469)	$ (127,111)	$ (37,580)
Denominator:				
Weighted-average shares outstanding - basic	36,913	40,229	39,092	40,189
Dilutive effect of convertible debt and stock-based compensation [2]	-	-	-	-
Weighted-average shares outstanding - diluted	36,913	40,229	39,092	40,189
EPS - basic and diluted: [3]				
EPS from continuing operations	$ (1.15)	$ (0.32)	$ (3.28)	$ (1.23)
EPS from discontinued operations	0.09	0.01	0.03	0.29
EPS	$ (1.06)	$ (0.31)	$ (3.25)	$ (0.94)
Anti-dilutive weighted-average convertible debt and stock-based compensation [2]	13,983	10,348	9,397	10,154

(1) Net loss from continuing operations can be recalculated from our consolidated statements of operations by taking the net loss from continuing operations including noncontrolling interest less net income attributable to noncontrolling interests.
(2) The effect related to the company's convertible debt and stock-based compensation awards have been excluded from diluted EPS for the periods presented as the inclusion of these shares would have been antidilutive.
(3) GAAP requires the denominator used in the diluted net EPS calculation for discontinued operations to be the same as that of continuing operations, regardless of net earnings (loss) from continuing operations.

12. STOCKHOLDERS' EQUITY

Components of stockholders' equity for the three and nine months ended September 30, 2019 and 2018 are as follows (in thousands):

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accum. Other Comp. Income	Treasury Stock		Total Green Plains Stockholders' Equity	Non-Controlling Interests	Total Stockholders' Equity
	Shares	Amount				Shares	Amount			
Balance, January 1, 2019	46,638 $	47 $	696,222 $	324,728 $	(16,016)	5,536 $	(58,162)$	946,819 $	116,170 $	1,062,989
Net income (loss)	-	-	-	(42,799)	-	-	-	(42,799)	4,928	(37,871)
Cash dividends and distributions declared	-	-	-	(4,847)	-	-	-	(4,847)	(5,487)	(10,334)
Other comprehensive loss before reclassification	-	-	-	-	(6,883)	-	-	(6,883)	-	(6,883)
Amounts reclassified from accumulated other comprehensive loss	-	-	-	-	10,376	-	-	10,376	-	10,376
Other comprehensive income, net of tax	-	-	-	-	3,493	-	-	3,493	-	3,493
Proceeds from disgorgement of shareholders short-swing profits, net [1]	-	-	5,023	-	-	-	-	5,023	-	5,023
Stock-based compensation	284	-	428	-	-	-	-	428	79	507
Balance, March 31, 2019	46,922	47	701,673	277,082	(12,523)	5,536	(58,162)	908,117	115,690	1,023,807
Net income (loss)	-	-	-	(45,342)	-	-	-	(45,342)	5,163	(40,179)
Cash dividends and distributions declared	-	-	-	(4,871)	-	-	-	(4,871)	(5,487)	(10,358)
Other comprehensive loss before reclassification	-	-	-	-	33,260	-	-	33,260	-	33,260
Amounts reclassified from accumulated other comprehensive loss	-	-	-	-	3,440	-	-	3,440	-	3,440
Other comprehensive income, net of tax	-	-	-	-	36,700	-	-	36,700	-	36,700
Issuance of 4.00% convertible notes due 2024, net of tax	-	-	22,537	-	-	-	-	22,537	-	22,537
Settlement of 3.25% convertible notes due 2019, net of tax	-	-	(271)	-	-	-	-	(271)	-	(271)
Repurchase of common stock	-	-	-	-	-	3,197	(39,870)	(39,870)	-	(39,870)
Stock-based compensation	(3)	-	2,129	-	-	-	-	2,129	79	2,208
Balance, June 30, 2019	46,919	47	726,068	226,869	24,177	8,733	(98,032)	879,129	115,445	994,574
Net income (loss)	-	-	-	(38,970)	-	-	-	(38,970)	3,479	(35,491)
Cash dividends and distributions declared	-	-	-	-	-	-	-	-	(5,497)	(5,497)
Other comprehensive loss before reclassification	-	-	-	-	28,095	-	-	28,095	-	28,095
Amounts reclassified from accumulated other comprehensive loss	-	-	-	-	(53,255)	-	-	(53,255)	-	(53,255)
Other comprehensive income, net of tax	-	-	-	-	(25,160)	-	-	(25,160)	-	(25,160)
Share of equity method investees other comprehensive loss arising during the period, net of tax	-	-	-	-	(10,771)	-	-	(10,771)	-	(10,771)
Issuance of 4.00% convertible notes due 2024, net of tax	-	-	2,231	-	-	-	-	2,231	-	2,231
Repurchase of common stock	-	-	-	-	-	1,663	(16,014)	(16,014)		(16,014)
Stock-based compensation	(4)	-	2,509	-	-	-	-	2,509	81	2,590
Balance, September 30, 2019	46,915 $	47 $	730,808 $	187,899 $	(11,754)	10,396 $	(114,046)$	792,954 $	113,508 $	906,462

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accum. Other Comp. Income	Treasury Stock		Total Green Plains Stockholders' Equity	Non-Controlling Interests	Total Stockholders' Equity
	Shares	Amount				Shares	Amount			
Balance, December 31, 2017	46,410	$ 46	$ 685,019	$ 325,411	$ (13,110)	5,326	$ (55,184)	$ 942,182	$ 116,954	$ 1,059,136
Reclassification of certain tax effects from other comprehensive loss[2]	-	-	-	2,787	(2,787)	-	-	-	-	-
Balance, January 1, 2018	46,410	46	685,019	328,198	(15,897)	5,326	(55,184)	942,182	116,954	1,059,136
Net income (loss)	-	-	-	(24,117)	-	-	-	(24,117)	4,662	(19,455)
Cash dividends and distributions declared	-	-	-	(4,831)	-	-	-	(4,831)	(5,420)	(10,251)
Other comprehensive income before reclassification	-	-	-	-	17,150	-	-	17,150	-	17,150
Amounts reclassified from accumulated other comprehensive income	-	-	-	-	(603)	-	-	(603)	-	(603)
Other comprehensive income net of tax	-	-	-	-	16,547	-	-	16,547	-	16,547
Stock-based compensation	284	1	(512)	-	-	-	-	(511)	60	(451)
Stock options exercised	5	-	50	-	-	-	-	50	-	50
Balance, March 31, 2018	46,699	47	684,557	299,250	650	5,326	(55,184)	929,320	116,256	1,045,576
Net income (loss)	-	-	-	(994)	-	-	-	(994)	4,745	3,751
Cash dividends and distributions declared	-	-	-	(4,851)	-	-	-	(4,851)	(5,478)	(10,329)
Other comprehensive income before reclassification	-	-	-	-	(4,277)	-	-	(4,277)	-	(4,277)
Amounts reclassified from accumulated other comprehensive income	-	-	-	-	(581)	-	-	(581)	-	(581)
Other comprehensive income net of tax	-	-	-	-	(4,858)	-	-	(4,858)	-	(4,858)
Exchange of 3.25% convertible notes due 2018	-	-	-	-	-	-	1	1	-	1
Stock-based compensation	52	-	2,812	-	-	-	-	2,812	60	2,872
Stock options exercised	10	-	100	-	-	-	-	100	-	100
Balance, June 30, 2018	46,761	47	687,469	293,405	(4,208)	5,326	(55,183)	921,530	115,583	1,037,113
Net income (loss)	-	-	-	(12,469)	-	-	-	(12,469)	5,050	(7,419)
Cash dividends and distributions declared	-	-	-	(4,854)	-	-	-	(4,854)	(5,487)	(10,341)
Other comprehensive income before reclassification	-	-	-	-	(14,395)	-	-	(14,395)	-	(14,395)
Amounts reclassified from accumulated other comprehensive income	-	-	-	-	1,427	-	-	1,427	-	1,427
Other comprehensive income net of tax	-	-	-	-	(12,968)	-	-	(12,968)	-	(12,968)
Modification of 3.25% convertible notes due 2019	-	-	4,660	-	-	-	-	4,660		4,660
Exchange of 3.25% convertible notes due 2018	-	-	-	-	-	-	-	-	-	-
Stock-based compensation	(15)	-	3,014	-	-	-	-	3,014	76	3,090
Stock options exercised	-	-	-	-	-	-	-	-	-	-
Balance, September 30, 2018	46,746	$ 47	$ 695,143	$ 276,082	$ (17,176)	5,326	$ (55,183)	$ 898,913	$ 115,222	$ 1,014,135

(1) During the three months ended March 31, 2019, the company received $6.7 million from a shareholder of the company for disgorgement of shareholder short-swing profits under Section 16(b) under the Exchange Act. The amount was recorded as an increase to additional paid-in capital, net of tax.

(2) Effective January 1, 2018, the company early adopted the amended guidance in ASC 220, Income Statement – Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. The amendment eliminates the stranded tax effects resulting from the Tax Cuts and Jobs Act and is intended to improve the usefulness of information reported. As a result, the company recorded a $2.8 million reclassification from accumulated other comprehensive income to retained earnings during the first quarter of 2018.

Amounts reclassified from accumulated other comprehensive income are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,		Statements of Operations Classification
	2019	2018	2019	2018	
Gains (losses) on cash flow hedges:					
Commodity derivatives	$ -	$ 4,766	$ -	$ 3,648	(1)
Commodity derivatives	-	1,331	-	1,258	(2)
Total gains on cash flow hedges from continuing operations	-	6,097	-	4,906	(3)
Gains (losses) on cash flow hedges from discontinued operations, net of income taxes	53,255	(6,109)	39,439	(4,247)	(4)
Income tax expense	-	1,415	-	902	(5)
Amounts reclassified from accumulated other comprehensive income (loss)	$ 53,255	$ (1,427)	$ 39,439	$ (243)	

(1) Revenues
(2) Costs of goods sold
(3) Loss from continuing operations before income taxes and income (loss) from equity method investees
(4) Net income from discontinued operations, net of income taxes
(5) Income tax benefit

13. INCOME TAXES

The company records actual income tax expense or benefit during interim periods rather than on an annual effective tax rate method. Certain items are given discrete period treatment and the tax effect of those items are reported in full in the relevant interim period. Green Plains Partners is a limited partnership, which is treated as a flow-through entity for federal income tax purposes and is not subject to federal income taxes. As a result, the consolidated financial statements do not reflect income taxes on pre-tax income or loss attributable to the noncontrolling interest in the partnership.

The company recorded income tax benefit of $12.5 million and $40.7 million for the three and nine months ended September 30, 2019, compared with $15.0 million and $34.5 million for the same periods in 2018. The amount of unrecognized tax benefits for uncertain tax positions was $51.6 million as of September 30, 2019 and December 31, 2018.

The 2019 effective tax rate can be affected by variances in the estimates and amounts of taxable income among the various states, entities and activity types, realization of tax credits, adjustments from resolution of tax matters under review, valuation allowances and the company's assessment of its liability for uncertain tax positions.

14. COMMITMENTS AND CONTINGENCIES

Adoption of ASC 842

On January 1, 2019, the company adopted the amended guidance in ASC 842, *Leases*, and all related amendments ("new lease standard") and applied it to all leases using the optional transition method which requires the amended guidance to be applied at the date of adoption. The standard does not require the guidance to be applied to the earliest comparative period presented in the financial statements. As such, comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. The new lease standard had a material impact on the company's consolidated balance sheets, increasing total assets and total liabilities by $60.9 million upon adoption. It did not have an impact on the consolidated statement of operations for the nine months ended September 30, 2019.

The impact on the consolidated balance sheet as of December 31, 2018 for the adoption of the new lease standard was as follows (in thousands):

	Balance at December 31, 2018 (audited)	Adjustments Due to ASC 842	Balance at January 1, 2019
Assets			
Operating lease right-of-use assets	$ -	$ 61,268	$ 61,268
Other assets	365	(365)	-
Liabilities			
Accounts payable	196	(196)	-
Operating lease current liabilities	-	18,315	18,315
Operating lease long-term liabilities	-	46,024	46,024
Other liabilities	3,240	(3,240)	-

The company's leases do not specify an implicit interest rate. Therefore, the incremental borrowing rate was used based on information available at commencement date to determine the present value of future payments.

Practical Expedients

Under the new lease standard, companies may elect various practical expedients upon adoption. The company elected the package of practical expedients related to transition, which states that an entity need not reassess initial direct costs for existing leases, the lease classification for any expired or existing leases, and whether any expired or existing contracts are or contain leases.

The company elected to utilize a portfolio approach for lease classification, which allows for an entity to group together leases with similar characteristics provided that its application does not create a material difference when compared to accounting for the leases at a contract level. For railcar leases, the company elected to combine the railcars within each rider and account for each rider as an individual lease.

The company also elected the practical expedient for lessees to include both the lease and non-lease components as a single component and account for them as a lease. Certain of the company's railcar agreements provide for maintenance costs to be the responsibility of the company as incurred or charged by the lessor. This maintenance cost is a non-lease component that the company elected to combine with the monthly rental payment and account for the total cost as operating lease expense. In addition, the company has a land lease that contains a non-lease component for the handling and unloading services the landlord provides. The company elected to combine the cost of services with the land lease cost and account for the total as operating lease expense.

A lessee may elect not to apply the recognition requirements in the new lease standard for short-term leases. Instead, the lease payments may be recognized into profit or loss on a straight-line basis over the lease term. The company has elected to use this short-term lease exemption, and therefore will not record a lease liability or right-of-use asset for leases with a term of one year or less. The company did not incur any short-term lease expense for the three and nine months ended September 30, 2019.

Lease Expense

The company leases certain facilities, parcels of land, and equipment, with remaining terms ranging from less than one year to 18.2 years. The land and facility leases include renewal options. The renewal options are included in the lease term only for those sites or locations in which they are reasonably certain to be renewed. Equipment renewals are not considered reasonably certain to be exercised as they typically renew with significantly different underlying terms.

The company may sublease certain of its railcars to third parties on a short-term basis. The subleases are classified as operating leases, with the associated sublease income being recognized on a straight-line basis over the lease term.

The components of lease expense are as follows (in thousands):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Lease expense		
Operating lease expense	$ 4,944	$ 15,899
Variable lease expense [1]	250	643
Total lease expense	$ 5,194	$ 16,542

(1) Represents amounts incurred in excess of the minimum payments required for the handling and unloading of railcars for a certain land lease, offset by railcar lease abatements provided by the lessor when railcars are out of service during periods of maintenance or upgrade.

Supplemental cash flow information related to operating leases is as follows (in thousands):

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 4,977	$ 15,913
Right-of-use assets obtained in exchange for lease obligations:	4,427	10,634
Operating leases		
Right-of-use assets and lease obligations derecognized due to lease modifications:		
Operating leases	1,405	1,405

Supplemental balance sheet information related to operating leases is as follows:

	September 30, 2019
Weighted average remaining lease term	6.7 years
Weighted average discount rate	5.44%

Aggregate minimum lease payments under the operating lease agreements for the remainder of 2019 and in future years are as follows (in thousands):

Year Ending December 31,	Amount
2019	$ 5,272
2020	18,822
2021	10,885
2022	8,924
2023	5,707
Thereafter	21,864
Total	71,474
Less: Present value discount	(12,378)
Lease liabilities	$ 59,096

Aggregate minimum lease payments remaining under the operating lease agreements under ASC 840, *Leases* as of December 31, 2018 are as follows (in thousands):

Year Ending December 31,	Amount
2019	$ 23,552
2020	17,473
2021	9,812
2022	7,325
2023	3,594
Thereafter	28,542
Total	$ 90,298

Lease Revenue

As described in *Note 2 – Revenue*, the majority of the partnership's segment revenue is generated though their storage and throughput services and rail transportation services agreements with Green Plains Trade and are accounted for as lease revenue. Leasing revenues do not represent revenues recognized from contracts with customers under ASC 606, and are accounted for under ASC 842, *Leases*. Lease revenue associated with agreements with Green Plains Trade are eliminated upon consolidation. The remaining lease revenue is not material to the company.

Refer to *Note 2 – Revenue* for further discussion on lease revenue.

Commodities

As of September 30, 2019, the company had contracted future purchases of grain, corn oil, natural gas, crude oil, ethanol and distillers grains, valued at approximately $271.7 million.

Legal

The company is currently involved in litigation that has arisen during the ordinary course of business, but does not believe any pending litigation will have a material adverse effect on its financial position, results of operations or cash flows.

15. RELATED PARTY TRANSACTIONS

Green Plains Cattle Company LLC

The company engages in certain related party transactions with GPCC. The company provides a variety of shared services to GPCC, including general management, accounting and finance, payroll and human resources, information technology, legal, communications and treasury activities. The company reduced selling, general and administrative expenses by $0.1 million related to shared services provided for the three and nine months ended September 30, 2019. The company had $0.5 million outstanding receivables related to the shared service agreement and expenses paid on behalf of GPCC as of September 30, 2019.

Green Plains Trade Group, a subsidiary of the company, enters into certain sale contracts with GPCC during the normal course of business. Revenues subsequent to the disposition of GPCC were $0.7 million for both the three and nine months ended September 30, 2019.

Aircraft Leases

Effective January 1, 2015, the company entered into two agreements with an entity controlled by Wayne Hoovestol for the lease of two aircrafts. Mr. Hoovestol is chairman of the company's board of directors. The company agreed to pay $9,766 per month for the combined use of up to 125 hours per year of the aircrafts. Flight time in excess of 125 hours per year will incur additional hourly charges. Payments related to these leases totaled $37 thousand and $106 thousand during the three and nine months ended September 30, 2019, and $39 thousand and $126 thousand during the three and nine months ended September 30, 2018, respectively. The company had no outstanding payables related to these agreements as of September 30, 2019 and December 31, 2018.

16. EQUITY METHOD INVESTMENTS

Green Plains Cattle Company LLC

On September 9, 2019, Green Plains, TGAM and StepStone announced the formation of a joint venture. Such parties entered into the Second Amended and Restated Limited Liability Company Agreement of GPCC effective as of September 1, 2019. GPCC was previously a wholly owned subsidiary of Green Plains. Green Plains also entered into a Securities Purchase Agreement with TGAM and StepStone, whereby TGAM and StepStone purchased an aggregate of 50% of the membership interests of GPCC from Green Plains. After closing, GPCC is no longer consolidated in the company's consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. GPCC results prior to its disposition are classified as discontinued operations in our current and prior period financials.

The GPCC investment is accounted for using the equity method of accounting. GPCC conducts the business of the joint venture, including (i) owning and operating the cattle feeding operations (as defined below), and (ii) any other activities approved by GPCC's board of managers. GPCC continues to have the capacity to support 355,000 head of cattle and has

approximately 11.7 million bushels of grain storage capacity. Historical GPCC operational results prior to its disposition are recorded as discontinued operations in the consolidated balance sheet and statements of operations.

The company does not consolidate any part of the assets or liabilities or operating results of its equity method investee. The company's share of net income or loss in the investee increases or decreases, as applicable, the carrying value of the investment. With respect to GPCC, the company determined that this entity does not represent a variable interest entity and consolidation is not required. In addition, although the company has the ability to exercise significant influence over the joint venture through board representation and voting rights, all significant decisions require the consent of the other investors without regard to economic interest.

Summarized Financial Information

During the periods ended September 30, 2019 and December 31, 2018, our equity method investees were considered related parties and included:

- Green Plains Cattle Company LLC, a joint venture formed on September 1, 2019, in which we have a 50% noncontrolling interest. See description of GPCC above.
- JGP Energy Partners LLC, in which we have a 50% noncontrolling interest. JGP Energy Partners LLC operates an intermodal export and import fuels terminal in Beaumont, Texas, with storage capacity of 550 thousand barrels to support various export and domestic grades of ethanol.
- Optimal Aqua LLC, in which we have a 50% noncontrolling interest. Optimal Aqua LLC produces high-quality aquaculture feeds utilizing proprietary techniques and high-protein feed ingredients.
- NLR Energy Logistics LLC, in which the partnership has a 50% noncontrolling interest. NLR Energy Logistics LLC operates a unit train terminal in the Little Rock, Arkansas area with capacity to unload 110-unit cars and provide approximately 100,000 barrels of storage.

Our equity method investments are summarized in the following table (in thousands):

	Ownership as of September 30, 2019	September 30, 2019	December 31, 2018
Green Plains Cattle Company LLC	50%	$ 63,066	$ -
JGP Energy Partners LLC	50%	25,145	25,362
Optimal Aqua LLC	50%	640	704
NLR Energy Logistics LLC	50%	4,178	3,648
Total		$ 93,029	$ 29,714

Earnings from equity method investments were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30	
	2019	2018	2019	2018
Green Plains Cattle Company LLC	$ 504	$ -	$ 504	$ -
NLR Energy Logistics LLC	173	48	530	(82)
All others	(33)	(298)	(500)	(407)
Total income (loss) from equity method investments	$ 644	$ (250)	$ 534	$ (489)
Distributions from equity method investments	$ -	$ -	$ -	$ -
Earnings from equity method investments, net of distributions	$ 644	$ (250)	$ 534	$ (489)

The company reports its proportional share of equity method investment income (loss) in the consolidated statements of operations. The company's share of equity method investees other comprehensive income arising during the period is included in accumulated other comprehensive loss in the accompanying balance sheet.

The following tables present summarized financial information of GPCC.

	One Month Ended September 30, 2019
Total revenues	$ 86,932
Total operating expenses	85,925
Net income	$ 1,007

	September 30, 2019
Balance sheet:	
Current assets	$ 452,604
Noncurrent assets	75,046
Current liabilities	401,034
Noncurrent liabilities	484
Net assets	$ 126,132

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

General

The following discussion and analysis provides information we believe is relevant to understand our consolidated financial condition and results of operations. This discussion should be read in conjunction with the consolidated financial statements and notes to the consolidated financial statements contained in this report together with our annual report on Form 10-K for the year ended December 31, 2018.

Cautionary Information Regarding Forward-Looking Statements

Forward-looking statements are made in accordance with safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on current expectations that involve a number of risks and uncertainties and do not relate strictly to historical or current facts, but rather to plans and objectives for future operations. These statements may be identified by words such as "anticipate," "believe," "continue," "estimate," "expect," "intend," "outlook," "plan," "predict," "may," "could," "should," "will" and similar expressions, as well as statements regarding future operating or financial performance or guidance, business strategy, environment, key trends and benefits of actual or planned acquisitions.

Factors that could cause actual results to differ from those expressed or implied in the forward-looking statements include, but are not limited to, those discussed in Part I, Item 1A – Risk Factors of our annual report on Form 10-K for the year ended December 31, 2018, or incorporated by reference. Specifically, we may experience fluctuations in future operating results due to a number of economic conditions, including: competition in the ethanol industry and other industries in which we operate; commodity market risks, including those that may result from weather conditions; financial market risks; counterparty risks; risks associated with changes to government policy or regulation, including changes to tax laws; risks related to acquisition and disposition activities and achieving anticipated results; risks associated with merchant trading, cattle feeding operations; risks related to our equity method investees and other factors detailed in reports filed with the SEC. Additional risks related to Green Plains Partners LP include compliance with commercial contractual obligations, potential tax consequences related to our investment in the partnership and risks disclosed in the partnership's SEC filings associated with the operation of the partnership as a separate, publicly traded entity.

We believe our expectations regarding future events are based on reasonable assumptions; however, these assumptions may not be accurate or account for all risks and uncertainties. Consequently, forward-looking statements are not guaranteed. Actual results may vary materially from those expressed or implied in our forward-looking statements. In addition, we are not obligated and do not intend to update our forward-looking statements as a result of new information unless it is required by applicable securities laws. We caution investors not to place undue reliance on forward-looking statements, which represent management's views as of the date of this report or documents incorporated by reference.

Overview

Green Plains is a diversified commodity-processing business with operations that include corn processing, grain handling and storage and commodity marketing and logistics services. The company is one of the leading corn processors in the world and, through its adjacent businesses, is focused on the production of high-protein feed ingredients and export growth opportunities. We are also focused on generating stable operating margins through our risk management strategy. Green Plains Partners LP is our primary downstream logistics provider, storing and delivering the ethanol we produce. We own a 49.1% limited partner interest, a 2.0% general partner interest and all of the partnership's incentive distribution rights. The public owns the remaining 48.9% limited partner interest. The partnership is consolidated in our financial statements. In addition, Green Plains owns a 50% interest in Green Plains Cattle Company LLC.

We are currently undergoing a number of project initiatives to improve margins. Through our Project 24 initiative, we anticipate reductions in operating expense per gallon across our non-ICM plants as a result of these investments. In addition, through our high-protein initiative, we expect to achieve increased margins per gallon as a result of the ability to produce various high protein animal feed products. The first installation is expected to be completed at our Shenandoah plant towards the end of 2019, with dried product available for distribution during the first quarter of 2020. The remaining locations will be completed over the course of the next three to four years.

Recent Developments

Disposition of Green Plains Cattle Company LLC

On September 9, 2019, the company, TGAM Agribusiness Fund Holdings-B LP ("TGAM") and StepStone Atlantic Fund, L.P. ("StepStone") announced the formation of a joint venture. Such parties entered into the Second Amended and Restated Limited Liability Company Agreement of Green Plains Cattle Company LLC ("GPCC") on September 6, 2019, effective as of September 1, 2019. GPCC was previously a wholly owned subsidiary of Green Plains. The company also entered into a Securities Purchase Agreement with TGAM and StepStone, whereby TGAM and StepStone purchased an aggregate of 50% of the membership interests of GPCC from the company. After closing, GPCC is no longer included in the consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. Under this method, an investment is recorded at the acquisition cost plus the company's share of equity in undistributed earnings or losses since acquisition and the company's share of equity method investees other comprehensive income arising during the period, reduced by distributions received and the amortization of excess net investment. The company recognizes this investment on a separate line item in the consolidated balance sheet and recognizes its proportionate share of earnings on a separate line item in the consolidated statement of operations. The company does not consolidate any part of the assets or liabilities or operating results of its equity method investees. Additionally, the company concluded that the disposition of GPCC met the requirements under *ASC 205-20 Presentation of Financial Statements – Discontinued Operations* ("*ASC 205-20*"). As such, GPCC results prior to its disposition are classified as discontinued operations in our current and prior period consolidated financial statements. See *Note 3 - Acquisitions, Dispositions and Discontinued Operations* for further details.

Under the LLC Agreement, the company has certain rights and obligations, including but not limited to, the right or obligation: (i) to designate two Managers to the Board of Managers of GPCC (the "Board"), or in the event the size of the Board is increased, the number of Managers equal to two-fifths of the Board, rounded up, and (ii) to fund additional capital contributions in accordance with their percentage interest upon mutual agreement by the company TGAM and StepStone. Additionally, TGAM and StepStone both have the right or obligation to designate one Manager, or in the event the size of the Board is increased, the number of Managers equal to one-fifths of the Board, rounded up. Each Manager serving on the Board shall have one vote and a majority of the Managers serving on the Board shall constitute a quorum for the transaction of business of the Board. The company's allocation under the LLC Agreement will be subject to certain adjustments.

Disposition of JGP Energy Partners

On October 28, 2019, the company signed a definitive agreement to sell its 50% joint venture interest in Jefferson Energy Companies fuels terminal to its partner Jefferson Energy Holdings LLC, a subsidiary of Fortress Transportation and Infrastructure Investors LLC for $29 million, plus the company's proportional share of working capital. The transaction is expected to close on or before December 15, 2019.

Increase of Share Repurchase Authorization

On October 30, 2019, the company's board of directors authorized an additional $100 million share repurchase taking the previously authorized amount from $100 million to $200 million.

Results of Operations

During the third quarter of 2019, we continued to experience a weak ethanol margin environment. Our operating strategy, including the operating cost savings initiative, is to increase utilization rates and efficiency while reducing operating expenses to achieve improved margins in the current environment. As a result, capacity utilization increased from an average of 80.0% of capacity in the second quarter to 84.2% of capacity in the third quarter. Ethanol production was 238.5 mmg for the third quarter of 2019, compared with 304.8 mmg for the same quarter last year. We expect to continue to run at higher average utilization rates to achieve the cost savings anticipated. Additionally, overall performance at our ethanol plants was negatively impacted by severe weather and associated flooding in areas where we transport products during the first half of 2019. The weather also drove corn prices up, negatively impacting margins.

U.S. Ethanol Supply and Demand

According to the EIA, domestic ethanol production averaged 1.02 million barrels per day during the third quarter of 2019, which was 4% lower than the 1.06 million barrels for the third quarter of last year. Refiner and blender input volume increased 1% to 941 thousand barrels per day for the third quarter of 2019, compared with 932 thousand barrels per day for the same quarter last year. Gasoline demand for the third quarter of 2019 increased slightly by 7 thousand barrels per day, or

0.1% compared to the same quarter last year. U.S. domestic ethanol ending stocks decreased by approximately 0.2 million barrels, or 1%, to 23.2 million barrels for the third quarter of 2019. At the end of May 2019, the EPA finalized regulatory changes to apply the 1 pound per square inch Reid Vapor Pressure (RVP) waiver that currently applies to E10 during the summer months so that it applies to E15 as well. This removes a significant barrier to wider sales of E15 in the summer months, thus expanding the market for ethanol in transportation fuel. As of September 30, 2019, there were approximately 1,970 retail stations selling E15 in 30 states, up from 1,700 at the beginning of the year, according to Growth Energy.

Global Ethanol Supply and Demand

According to the USDA Foreign Agriculture Service, domestic ethanol exports through August 31, 2019 were approximately 1.00 bg, down 13% from 1.15 bg for the same period of 2018. Brazil remained the largest export destination for U.S. ethanol, which accounted for 25% of domestic ethanol export volume despite the 20% tariff on U.S. ethanol imports in excess of 150 million liters, or 39.6 million gallons per quarter, imposed in September 2017 by Brazil's Chamber of Foreign Trade, or CAMEX. In a resolution published August 31, 2019, Brazil raised the annual import quota to 750 million liters, or 198 million gallons per year from the expiring 600 million-liter limit. The final resolution awaits approval of the Brazilian government. In addition, Canada, India, South Korea, and the Philippines accounted for 21%, 13%, 6%, and 5%, respectively, of U.S. ethanol exports.

On April 1, 2018, China announced it would add an additional 15% tariff to the existing 30% tariff it had earlier imposed on ethanol imports from the United States and Brazil. China later raised the tariff further to 70% as the trade war escalated. There continues to be negotiations between the U.S. and China with no certainty of when a trade agreement may be reached.

The cost to produce the equivalent amount of starch found in sugar from $3.50-per-bushel corn is 7 cents per pound. The average price of sugar remained at approximately 13 cents per pound during the third quarter of 2019. We currently estimate that net ethanol exports will reach between 1.4 billion gallons and 1.5 billion gallons in 2019 based on historical demand from a variety of countries and certain countries who seek to improve their air quality and eliminate MTBE from their own fuel supplies.

Co-Product Supply and Demand

During the third quarter of 2019, the market sentiment for cattle feeding came under pressure as beef packing capacity contracted due to the loss of a Kansas packing plant after a fire in August. However, as other packing plants increased hours of operations, the effects from the loss of the Kansas plant have been reduced. Feeder supplies have remained robust following a brief slowdown when cattle prices weakened following the plant fire, and it looks like feeder supplies for the fourth quarter will be sufficient. Domestic beef consumption per capita in 2019 is projected to be steady with 2018 at 57.2 pounds, but that number is expected to increase in 2020 to 57.7 pounds according to the USDA. Export demand for beef is forecasted to decrease approximately 1.1% in 2019 compared with 2018 according to the USDA. Total fed cattle marketings through the end of August 2019 increased 1.5% compared with the first eight months of 2018.

Cow-calf operations continue to be profitable, which has supported a period of expansion. Excellent pasture conditions after a wet winter and spring will help the profitability of stocker operations. As of September 1, 2019, cattle on feed numbers decreased 1.3% to 10.98 million head compared to the same period last year.

The U.S. looks poised to grow its global market share for animal protein while Australia continues to struggle with drought conditions, and African Swine Fever ("ASF") issues in China should result in larger world export demand for animal protein from the U.S.

Year-to-date U.S. distillers grains exports through August 31, 2019, were 7.3 million metric tons, or 8.6% lower than the same period last year, according to the USDA Foreign Agriculture Service. Mexico, South Korea, Vietnam, Indonesia, Canada, and Turkey, accounted for approximately 62% of total U.S. distillers export volumes.

While ASF may have a positive impact on animal protein demand from the U.S., it may have a negative impact on distillers grains exports and domestic usage. ASF may depress soybean meal demand in China which could make the animal feed more price competitive to distillers grains and allow for substitution of high-protein soybean meal worldwide.

Legislation and Regulation

We are sensitive to government programs and policies that affect the supply and demand for ethanol and other fuels, which in turn may impact the volume of ethanol and other fuels we handle. Various bills have been discussed in the House

and Senate which would eliminate the RFS entirely, eliminate the corn based ethanol portion of the mandate, or make it more difficult to sell fuel blends with higher levels of ethanol. However, we believe it is unlikely that any of these bills would become law in a divided Congress. In addition, the manner in which the EPA administers the RFS can have a significant impact on the actual amount of ethanol blended into the domestic fuel supply.

Federal mandates supporting the use of renewable fuels are a significant driver of ethanol demand in the U.S. Ethanol policies are influenced by concerns for the environment, diversifying our fuel supply, and reducing the country's dependence on foreign oil. Consumer acceptance of flex-fuel vehicles and higher ethanol blends of ethanol in non-flex-fuel vehicles may be necessary before ethanol can achieve further growth in U.S. market share. Congress first enacted Corporate Average Fuel Economy (CAFE) in 1975 to reduce energy consumption by increasing the fuel economy of cars and light trucks. It provides a 54% efficiency bonus to flexible-fuel vehicles, which can operate on ethanol blends up to E85.

Another important factor is a waiver in the Clean Air Act, known as the One-Pound Waiver, which allows E10 to be sold year-round, even though it exceeds the Reid Vapor Pressure limitation of nine pounds per square inch. At the end of May 2019, the EPA finalized a rule which extended the One-Pound Waiver to E15 expanding it beyond flex-fuel vehicles during the June 1 to September 15 summer driving season. This rule is being challenged in an action filed in Federal District Court for the DC Circuit. However, the One-Pound Waiver is in effect, and for the first time ever E15 was legally sold to all vehicles model year 2001 and newer during the 2019 summer driving season.

When the RFS II was passed in 2007 and rulemaking finalized in October 2010, the required volume of conventional renewable fuel to be blended with gasoline was to increase each year until it reached 15.0 billion gallons in 2015. In November 2018, the EPA announced it would maintain the 15.0 billion gallon mandate for conventional ethanol in 2019. On July 5, 2019, the EPA released their annual proposal for RFS volumes, which included 15.0 billion gallons for conventional renewable fuel in 2020. On October 15, 2019, the EPA issued a supplemental proposal for RFS volumes, seeking additional comment on projecting the volume of fuels to be exempted by small refinery exemptions and including those volumes in the annual calculation. These proposals are expected to be finalized by the end of the year.

The EPA has the authority to waive the mandates in whole or in part if there is inadequate domestic renewable fuel supply or the requirement severely harms the economy or environment. According to the 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 maintained 15 billion gallons, 2019 was the second year that the total proposed RVOs were more than 20% below statutory volumes levels. Thus, the EPA Administrator has directed his staff to initiate a reset rulemaking, wherein the EPA will modify statutory volumes through 2022, based on the same factors used to set the RVOs post-2022. These factors include environmental impact, domestic energy security, expected production, infrastructure impact, consumer costs, job creation, price of agricultural commodities, food prices, and rural economic development.

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. Obligated parties use RINs to show compliance with RFS-mandated volumes. Ethanol producers assign RINs to renewable fuels and the RINs are detached when the renewable fuel is blended with transportation fuel domestically. Market participants can trade the detached RINs 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.

The EPA can, in consultation with the Department of Energy, waive the obligation for individual refineries that are suffering "disproportionate economic hardship" due to compliance with the RFS. To qualify, the refineries must have total throughput of under 75,000 barrels per day and state their case for an exemption in an application to the EPA for each compliance year.

The EPA waived the obligation for 19 of 20 applicants for compliance year 2016, totaling 790 million gallons of renewable fuels. They also waived the obligation for 35 of 37 applicants for compliance year 2017, totaling 1.82 billion gallons of renewable fuels. They waived the obligation for 31 of 42 applicants for compliance year 2018, totaling 1.43 billion gallons of renewable fuels. These waivers effectively reduced the annual RVO by that amount, since the EPA has not accounted for the lost gallons by allocating them to other obligated parties.

The resulting surplus of RINs in the market brought values down significantly to under $0.20. Since higher RIN values help to make higher blends of ethanol more cost competitive at the pump, lower RIN values could hinder or at least slow retailer and consumer adoption of E15 and other higher blends of ethanol. It is reasonable to assume there will be 30-40 waiver applications submitted for compliance year 2019, which, if handled as in years past, could represent approximately 1.5 to 2 billion gallons of renewable fuels.

Biofuels groups and biofuels opposition groups each have filed lawsuits related to RFS II. In addition to the E15 litigation discussed previously, biofuels groups have filed in the U.S. Federal District Court for the D.C. Circuit, challenging the 2019 RVO rule over the EPA's failure to address small refinery exemptions in the rulemaking. Biofuel opposition groups have filed also in the DC Circuit, with such action consolidated with similar cases, to review the EPA's 2018 RVO rulemaking. Biofuel groups have filed an action in the DC Circuit to compel the EPA to produce information under the Freedom of Information Act related to small refinery exemptions. Certain biofuel groups have further filed suit in the Tenth Circuit Court of Appeals challenging small refinery exemptions. Numerous other suits on related RFS II matters are also pending, namely involving RVOs and small refinery exemptions.

On October 4, 2019 the White House announced that they would start accounting for gallons lost to refinery exemptions in annual RVO rulemakings, beginning with a supplemental rule to the 2020 RVO which is due to be finalized before the end of 2019. They propose to add into the formula for the RVO a rolling average of the past three years' waived gallons, so when additional waivers are granted, the total volume of renewable fuels required remains largely intact. This directive will also eliminate barriers to adoption of E15 and higher blends, including labeling changes and allowing E15 to be sold through E10 infrastructure.

In 2017, the D.C. Circuit ruled in favor of biofuel groups against the EPA related to its decision to lower the 2016 volume requirements by 500 million gallons. As a result, the Court remanded to the EPA to make up for the 500 million gallons. Despite this, in the proposed 2020 RVO rulemaking released in July 2019, the EPA stated it does not intend to make up the 500 million gallons as the court directed, citing potential burden on obligated parties. It is anticipated that additional litigation will ensue from this matter.

Government actions abroad can significantly impact the demand for U.S. ethanol. In September 2017, China's National Development and Reform Commission, the National Energy Board and 15 other state departments issued a joint plan to expand the use and production of biofuels containing up to 10% ethanol by 2020. China, the number three importer of U.S. ethanol in 2016, imported negligible volumes during fiscal year 2018 due to a 30% tariff on U.S. ethanol, which increased to 70% in early 2018. There is no assurance that China's joint plan will lead to increased imports of U.S. ethanol in the near term. Our exports also face tariffs, rate quotas, countervailing duties, and other hurdles in Brazil, the European Union, India, Peru, and elsewhere, which limits our ability to compete in some markets.

In Brazil, the Secretary of Foreign Trade issued an official written resolution, imposing a 20% tariff on U.S. ethanol imports in excess of 150 million liters, or 39.6 million gallons per quarter in September 2017. The initial ruling was valid for two years; however, it was extended at the end of August 2019 for an additional year. On an annual basis, Brazil will now allow into the country 750 million duty free liters distributed on a quarterly basis as follows: September to November 100 million liters, December to February 100 million liters, March to May 275 million liters and June to August 275 million liters.

In June 2017, the Energy Regulatory Commission of Mexico (CRE) approved the use of 10% ethanol blends, which was challenged by ten lawsuits, of which five cases were dismissed. The five remaining cases follow one of two tracks: 1) to determine the constitutionality of the CRE regulation, or 2) to determine the benefits, or lack thereof, of introducing E10 to Mexico. An injunction was granted in October 2017, preventing the blending and selling of E10, but was overturned by a higher court in June 2018 making it legal to blend and sell E10 by PEMEX throughout Mexico except for its three largest metropolitan areas. U.S. ethanol exports to Mexico totaled 29.4 mmg in 2018.

Comparability of our Financial Results

We report the financial and operating performance for the following four operating segments: (1) ethanol production, which includes the production of ethanol, distillers grains and corn oil, (2) agribusiness and energy services, which includes grain handling and storage, commodity marketing and merchant trading for company-produced and third-party ethanol, distillers grains, corn oil, natural gas and other commodities, (3) food and ingredients, which includes food-grade corn oil and vinegar production until the sale of Fleischmann's Vinegar during the fourth quarter of 2018 and (4) partnership, which includes fuel storage and transportation services.

The three and nine months ended September 30, 2019 do not include operations of the Bluffton, Lakota, Hopewell and Riga ethanol plants which were either permanently closed or sold during the fourth quarter of 2018. Additionally, the three and nine months ended September 30, 2019 do not include Fleischmann's Vinegar operations, which was also sold in the fourth quarter of 2018.

Additionally, we sold an aggregate 50% membership interest in GPCC to TGAM and StepStone during the third quarter of 2019. After closing, GPCC is no longer consolidated in the company's consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. The company concluded that the disposition of GPCC met the requirements under *ASC 205-20*. Therefore, GPCC results for the three and nine months ended September 30, 2019 and 2018 are classified as discontinued operations. Furthermore, in accordance with *ASC 205-20*, the related assets and liabilities of GPCC have been presented as discontinued operations in the December 31, 2018 consolidated balance sheet.

During the normal course of business, our operating segments do business with each other. For example, our agribusiness and energy services segment procures grain and natural gas and sells products, including ethanol, distillers grains and corn oil of our ethanol production segment. Our partnership segment provides fuel storage and transportation services for our agribusiness and energy services segment. These intersegment activities are treated like third-party transactions with origination, marketing and storage fees charged at estimated market values. Consequently, these transactions affect segment performance; however, they do not impact our consolidated results since the revenues and corresponding costs are eliminated.

Corporate activities include selling, general and administrative expenses, consisting primarily of compensation, professional fees and overhead costs not directly related to a specific operating segment. When we evaluate segment performance, we review the following segment information as well as earnings before interest, income taxes, depreciation and amortization, excluding amortization of operating lease right-of-use assets and amortization of debt issuance costs, or EBITDA.

As of September 30, 2019, we, together with our subsidiaries, own a 49.1% limited partner interest and a 2.0% general partner interest in the partnership and own all of the partnership's incentive distribution rights, with the remaining 48.9% limited partner interest owned by public common unitholders. We consolidate the financial results of the partnership, and record a noncontrolling interest for the economic interest in the partnership held by the public common unitholders.

Segment Results

The selected operating segment financial information are as follows (in thousands):

	Three Months Ended September 30,		%	Nine Months Ended September 30,		%
	2019 (1)	**2018** (1)	**Variance**	**2019** (1)	**2018** (1)	**Variance**
Revenues:						
Ethanol production:						
Revenues from external customers	$ 484,382	$ 576,475	(16.0%)	$ 1,206,107	$ 1,735,546	(30.5%)
Intersegment revenues	24	37	(35.1)	75	157	(52.2)
Total segment revenues	484,406	576,512	(16.0)	1,206,182	1,735,703	(30.5)
Agribusiness and energy services:						
Revenues from external customers	146,650	177,832	(17.5)	488,687	558,054	(12.4)
Intersegment revenues	7,293	9,150	(20.3)	19,432	26,346	(26.2)
Total segment revenues	153,943	186,982	(17.7)	508,119	584,400	(13.1)
Food and ingredients:						
Revenues from external customers	-	33,443	(100.0)	1,451	102,277	(98.6)
Intersegment revenues	-	-	-	-	-	-
Total segment revenues	-	33,443	(100.0)	1,451	102,277	(98.6)
Partnership:						
Revenues from external customers	1,318	1,298	1.5	5,315	4,546	16.9
Intersegment revenues	18,836	24,472	(23.0)	56,751	72,949	(22.2)
Total segment revenues	20,154	25,770	(21.8)	62,066	77,495	(19.9)
Revenues including intersegment activity	658,503	822,707	(20.0)	1,777,818	2,499,875	(28.9)
Intersegment eliminations	(26,153)	(33,659)	(22.3)	(76,258)	(99,452)	(23.3)
Revenues as reported	$ 632,350	$ 789,048	(19.9%)	$ 1,701,560	$ 2,400,423	(29.1%)

(1) Revenues include certain items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These revenue transactions are now presented gross in product revenues. These revenue transactions total \$5.5 million and \$14.5 million for the three and nine months ended September 30, 2019, respectively, and \$6.7 million and \$21.1 million for the three and nine months ended September 30, 2018, respectively.

	Three Months Ended September 30,		%	Nine Months Ended September 30,		%
	2019 [(1)]	2018 [(1)]	Variance	2019 [(1)]	2018 [(1)]	Variance
Cost of goods sold:						
Ethanol production	$ 512,527	$ 560,719	(8.6%)	$ 1,289,366	$ 1,706,891	(24.5%)
Agribusiness and energy services	150,465	179,432	(16.1)	486,305	546,318	(11.0)
Food and ingredients	3	26,228	(100.0)	1,526	79,894	(98.1)
Partnership	-	-	*	-	-	*
Intersegment eliminations	(30,866)	(33,299)	(7.3)	(76,716)	(99,189)	(22.7)
	$ 632,129	$ 733,080	(13.8%)	$ 1,700,481	$ 2,233,914	(23.9%)

(1) Cost of goods sold include certain items which were previously considered intercompany transactions prior to the disposition of GPCC and therefore eliminated upon consolidation. These cost of goods sold transactions are now presented gross in cost of goods sold. These cost of goods sold transactions total $5.5 million and $14.4 million for the three and nine months ended September 30, 2019, respectively, and $6.6 million and $21.0 million for the three and nine months ended September 30, 2018, respectively.

	Three Months Ended September 30,		%	Nine Months Ended September 30,		%
	2019	2018	Variance	2019	2018	Variance
Operating income (loss):						
Ethanol production	$ (49,289)	$ (15,961)	(208.8%)	$ (147,366)	$ (60,704)	(142.8%)
Agribusiness and energy services	(461)	2,850	(116.2)	9,184	22,080	(58.4)
Food and ingredients	(6)	3,892	(100.2)	(76)	12,426	(100.6)
Partnership	12,322	16,725	(26.3)	38,029	48,214	(21.1)
Intersegment eliminations	4,738	(325)	*	533	(113)	*
Corporate activities	(9,669)	(10,965)	11.8	(27,952)	(34,879)	19.9
	$ (42,365)	$ (3,784)	*	$ (127,648)	$ (12,976)	*

	Three Months Ended September 30,		%	Nine Months Ended September 30,		%
	2019	2018	Variance	2019	2018	Variance
Depreciation and amortization:						
Ethanol production	15,547	24,289	(36.0%)	46,324	65,284	(29.0%)
Agribusiness and energy services	541	675	(19.9)	1,642	1,923	(14.6)
Food and ingredients	-	2,333	*	-	6,788	*
Partnership	991	1,120	(11.5)	2,747	3,406	(19.3)
Corporate activities	749	849	(11.8)	2,250	2,769	(18.7)
	$ 17,828	$ 29,266	(39.1%)	$ 52,963	$ 80,170	(33.9%)

We use EBITDA and adjusted EBITDA as segment measures of profitability to compare the financial performance of our reportable segments and manage those segments. EBITDA is defined as earnings before interest expense, income tax expense, depreciation and amortization excluding the amortization of right-of-use assets and debt issuance costs. Adjusted EBITDA includes adjustments related to operational results of Green Plains Cattle prior to its disposition which are recorded as discontinued operations and our proportional share of EBITDA adjustments of our equity method investees. We believe EBITDA and adjusted EBITDA are useful measures to compare our performance against other companies. EBITDA and adjusted EBITDA should not be considered an alternative to, or more meaningful than, net income, which is prepared in accordance with GAAP. EBITDA and adjusted EBITDA calculations may vary from company to company. Accordingly, our computation of EBITDA and adjusted EBITDA may not be comparable with a similarly titled measure of other companies.

The following table reconciles net loss from continuing operations including noncontrolling interest to adjusted EBITDA (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Net loss from continuing operations including noncontrolling interest	$ (38,884)	$ (7,886)	$ (114,507)	$ (34,958)
Interest expense	10,548	19,703	31,528	58,330
Income tax benefit	(12,530)	(14,973)	(40,692)	(34,524)
Depreciation and amortization [(1)]	17,828	29,266	52,963	80,170
EBITDA	(23,038)	26,110	(70,708)	69,018
EBITDA adjustments related to discontinued operations	8,469	5,925	17,703	27,979
Proportional share of EBITDA adjustments to equity method investees	1,186	311	1,827	745
Adjusted EBITDA	$ (13,383)	$ 32,346	$ (51,178)	$ 97,742

(1) Excludes the amortization of operating lease right-of-use assets and amortization of debt issuance costs.

	Three Months Ended September 30,		%	Nine Months Ended September 30,		%
	2019	2018	Variance	2019	2018	Variance
Adjusted EBITDA:						
Ethanol production	$ (33,787)	$ 8,475	*	$ (101,027)	$ 4,742	*
Agribusiness and energy services	(75)	3,537	*	10,686	24,035	(55.5)
Food and ingredients	(7)	6,226	*	(76)	19,213	*
Partnership	13,594	17,913	(24.1)	41,382	51,674	(19.9)
Intersegment eliminations	4,738	(325)	*	533	(113)	*
Corporate activities	(7,501)	(9,716)	22.8	(22,206)	(30,533)	27.3
EBITDA	(23,038)	26,110	*	(70,708)	69,018	*
EBITDA adjustments related to discontinued operations	8,469	5,925	42.9	17,703	27,979	(36.7)
Proportional share of EBITDA adjustments to equity method investees	1,186	311	281.4	1,827	745	145.2
Adjusted EBITDA	$ (13,383)	$ 32,346	*	$ (51,178)	$ 97,742	*

* Percentage variance not considered meaningful.

Three Months Ended September 30, 2019 Compared with the Three Months Ended September 30, 2018

Consolidated Results

Consolidated revenues decreased $156.7 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily due to the disposition of three ethanol plants and the sale of Fleischmann’s Vinegar during the fourth quarter of 2018.

Operating income decreased $38.6 million and adjusted EBITDA decreased $45.7 million for the three months ended September 30, 2019 compared with the same period last year primarily due to decreased margins on ethanol production as well as the disposition of Fleischmann’s Vinegar during the fourth quarter of 2018. Interest expense decreased $9.2 million for the three months ended September 30, 2019, compared with the same period in 2018, primarily due to the repayment of the $500 million senior secured term loan during the fourth quarter of 2018. Income tax benefit was $12.5 million for the three months ended September 30, 2019 compared with $15.0 million for the same period in 2018.

The following discussion provides greater detail about our third quarter segment performance.

Ethanol Production Segment

Key operating data for our ethanol production segment is as follows:

	Three Months Ended September 30,		
	2019	**2018**	**% Variance**
Ethanol sold (thousands of gallons)	238,473	304,826	(21.8)
Distillers grains sold (thousands of equivalent dried tons)	617	811	(23.9)
Corn oil sold (thousands of pounds)	60,607	78,304	(22.6)
Corn consumed (thousands of bushels)	82,730	105,965	(21.9)

Revenues in our ethanol production segment decreased $92.1 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily due to the disposition of three ethanol plants during the fourth quarter of 2018 as well as lower average realized prices for ethanol and distillers grains.

Operating income decreased $33.3 million and EBITDA decreased $42.3 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily as a result of decreased margins. Depreciation and amortization expense decreased $8.7 million for the three months ended September 30, 2019 compared with the same period last year, primarily due to the disposition of three ethanol plants during the fourth quarter of 2018.

Agribusiness and Energy Services Segment

Revenues in our agribusiness and energy services segment decreased $33.0 million while operating income decreased by $3.3 million and EBITDA decreased by $3.6 million for the three months ended September 30, 2019 compared with the same period in 2018. The decrease in revenues was primarily due to a decrease in ethanol, distillers grain and corn oil production and trading activity, as well as lower average realized prices for ethanol. Operating income and EBITDA decreased primarily as a result of decreased margins.

Food and Ingredients Segment

Revenues in our food and ingredients segment decreased $33.4 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily due to the sale of Fleischmann's Vinegar during the fourth quarter of 2018.

As a result of factors identified above, operating income decreased by $3.9 million and EBITDA decreased $6.2 million for the three months ended September 30, 2019 compared with the same period in 2018.

Partnership Segment

Revenues generated by our partnership segment decreased $5.6 million for the three months ended September 30, 2019 compared to the same period of 2018, primarily due to lower storage and throughput volumes due to disposition of three ethanol plants during the fourth quarter of 2018 as well as lower revenues generated from rail transportation services due to the assignment of various railcar operating leases as part of the disposition. Operating income decreased $4.4 million and EBITDA decreased $4.3 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily due to the factors described above.

Intersegment Eliminations

Intersegment eliminations of revenues decreased by $7.5 million for the three months ended September 30, 2019 compared with the same period in 2018 due to a decrease in storage and throughput fees paid to the partnership segment due to the disposition of the three ethanol plants during the further quarter of 2018 as well as decreased intersegment marketing fees within the agribusiness and energy services segment.

Corporate Activities

Operating income was impacted by a decrease in operating expenses of $1.3 million for the three months ended September 30, 2019 compared with the same period in 2018 primarily as a result of a workforce reduction which occurred as part of our portfolio optimization program in the last half of 2018.

Income Taxes

We recorded income tax benefit of $12.5 million for the three months ended September 30, 2019, compared with $15.0 million for the same period in 2018. The change in income tax benefit was primarily due to the impact of R&D credits for the three months ended September 30, 2018, offset by a higher loss before income taxes for the three months ended September 30, 2019.

Net Income from Discontinued Operations

As previously discussed, we sold an aggregate 50% membership interest in GPCC to TGAM and StepStone during the third quarter of 2019. After closing, GPCC is no longer consolidated in the company's consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. The company concluded that the disposition of GPCC met the requirements under *ASC 205-20*. Therefore, GPCC results for the three and nine months ended September 30, 2019 and 2018 are classified as discontinued operations. Net income from discontinued operations increased by $2.9 million for the three months ended September 30, 2019 primarily due to increased cattle margins.

Nine Months Ended September 30, 2019 Compared with the Nine Months Ended September 30, 2018

Consolidated Results

Consolidated revenues decreased $698.9 million for the nine months ended September 30, 2019 compared with the same period in 2018 primarily due to the disposition of three ethanol plants and the sale of Fleischmann's Vinegar during the fourth quarter of 2018.

Operating income decreased $114.7 million and adjusted EBITDA decreased $148.9 million for the nine months ended September 30, 2019 compared with the same period last year primarily due to lower volume and decreased margins on ethanol production as well as the disposition of Fleischmann's Vinegar during the fourth quarter of 2018. Interest expense decreased $26.8 million for the nine months ended September 30, 2019 compared with the same period in 2018, primarily due to the repayment of the $500 million senior secured term loan during the fourth quarter of 2018. Income tax benefit was $40.7 million for the nine months ended September 30, 2019 compared with $34.5 million for the same period in 2018.

The following discussion provides greater detail about our year-to-date segment performance.

Ethanol Production Segment

Key operating data for our ethanol production segment is as follows:

	Nine Months Ended September 30,		
	2019	**2018**	**% Variance**
Ethanol produced (thousands of gallons)	617,536	881,518	(29.9)
Distillers grains produced (thousands of equivalent dried tons)	1,601	2,279	(29.7)
Corn oil produced (thousands of pounds)	148,630	222,994	(33.3)
Corn consumed (thousands of bushels)	214,734	306,395	(29.9)

Revenues in our ethanol production segment decreased $529.5 million for the nine months ended September 30, 2019 compared with the same period in 2018 primarily due to the disposition of three ethanol plants during the fourth quarter of 2018 as well as lower production volumes of ethanol, distillers grains and corn oil due to the depressed margin environment and lower average realized prices for ethanol and distillers grains.

Operating income decreased $86.7 million and EBITDA decreased $105.8 million for the nine months ended September 30, 2019 compared with the same period in 2018 primarily as a result of decreased margins. Depreciation and amortization expense decreased $19.0 million for the nine months ended September 30, 2019 compared with the same period last year, primarily due to the disposition of three ethanol plants during the fourth quarter of 2018.

Agribusiness and Energy Services Segment

Revenues in our agribusiness and energy services segment decreased $76.3 million while operating income decreased by $12.9 million and EBITDA decreased by $13.3 million for the nine months ended September 30, 2019 compared with the same period in 2018. The decrease in revenues was primarily due to a decrease in ethanol, distillers grain and corn oil production and trading activity, as well as lower average realized prices for ethanol. Operating income and EBITDA decreased primarily as a result of decreased margins.

Food and Ingredients Segment

Revenues in our food and ingredients segment decreased $100.8 million for the nine months ended September 30, 2019 compared with the same period in 2018 due to the sale of Fleischmann’s Vinegar during the fourth quarter of 2018.

Operating income decreased by $12.5 million and EBITDA decreased $19.3 million for the nine months ended September 30, 2019 compared with the same period in 2018 due to the sale of Fleischmann’s Vinegar during the fourth quarter of 2018.

Partnership Segment

Revenues generated by our partnership segment decreased $15.4 million for the nine months ended September 30, 2019 compared to the same period of 2018, primarily due to lower storage and throughput volumes due to the disposition of three ethanol plants during the fourth quarter of 2018 as well as lower production at our remaining plants and lower revenues generated from rail transportation services due to the assignment of various railcar operating leases as part of the disposition. Operating income decreased $10.2 million and EBITDA decreased $10.3 million for the nine months ended September 30, 2019 compared with the same period in 2018 primarily due to the factors described above.

Intersegment Eliminations

Intersegment eliminations of revenues decreased by $23.2 million for the nine months ended September 30, 2019 compared with the same period in 2018 due to a decrease in storage and throughput fees paid to the partnership segment as well as decreased intersegment marketing fees within the agribusiness and energy services segment.

Corporate Activities

Operating income was impacted by a decrease in operating expenses for corporate activities of $6.9 million for the nine months ended September 30, 2019 compared with the same period in 2018 primarily as a result of a workforce reduction which occurred as part of our portfolio optimization program in the last half of 2018.

Income Taxes

We recorded income tax benefit of $40.7 million for the nine months ended September 30, 2019, compared with $34.5 million for the same period in 2018. The change in income tax benefit was due to a higher loss before income taxes for the nine months ended September 30, 2019, as well as the impact of R&D credits for the same period in 2018.

Net Income from Discontinued Operations

As previously discussed, we sold an aggregate 50% membership interest in GPCC to TGAM and StepStone during the third quarter of 2019. After closing, GPCC is no longer consolidated in the company’s consolidated financial statements and the GPCC investment is accounted for using the equity method of accounting. The company concluded that the disposition of GPCC met the requirements under *ASC 205-20*. Therefore, GPCC results for the three and nine months ended September 30, 2019 and 2018 are classified as discontinued operations. Net income from discontinued operations decreased by $10.9 million for the nine months ended September 30, 2019 primarily due to severe winter weather and abnormally negative basis during the first quarter of 2019.

Liquidity and Capital Resources

Our principal sources of liquidity include cash generated from operating activities and bank credit facilities. We fund our operating expenses and service debt primarily with operating cash flows. Capital resources for maintenance and growth expenditures are funded by a variety of sources, including cash generated from operating activities, borrowings under bank credit facilities, or issuance of senior notes or equity. Our ability to access capital markets for debt under reasonable terms depends on our financial condition, credit ratings and market conditions. We believe that our ability to obtain financing at reasonable rates and history of consistent cash flow from operating activities provide a solid foundation to meet our future liquidity and capital resource requirements.

On September 30, 2019, we had $235.5 million in cash and equivalents, excluding restricted cash, consisting of $160.5 million held at our parent company and the remainder held at our subsidiaries. Additionally, we had $18.5 million in restricted cash at September 30, 2019. We also had $328.4 million available under our committed revolving credit agreements, some of which were subject to restrictions or other lending conditions. Funds at certain subsidiaries are generally required for their ongoing operational needs and restricted from distribution. At September 30, 2019, our subsidiaries had approximately $63.5 million of net assets that were not available to us in the form of dividends, loans or advances due to restrictions contained in their credit facilities.

Net cash used in operating activities for continuing operations was $17.8 million for the nine months ended September 30, 2019 compared with net cash provided by operating activities for continuing operations of $58.1 million for the same period in 2018. Operating activities compared to the prior year were primarily affected by changes in working capital as well as decreases in operating income when compared to the same period of the prior year. Net cash provided by investing activities for continuing operations was $37.2 million for the nine months ended September 30, 2019 compared with net cash used in investing activities for continuing operations of $24.8 million for the same period in 2018, due primarily to the receipt of $77.2 million for the disposition of GPCC offset by increased capital expenditures at our existing ethanol plants. Net cash used in financing activities for continuing operations was $46.4 million for the nine months ended September 30, 2019 compared with $117.0 million for the same period in 2018, resulting from an increase in net borrowings offset by payments for the repurchase of common stock.

Additionally, Green Plains Trade and Green Plains Grain use revolving credit facilities to finance working capital requirements. We frequently draw from and repay these facilities which results in significant cash movements reflected on a gross basis within financing activities as proceeds from and payments on short-term borrowings.

We incurred capital expenditures of $43.4 million during the nine months ended September 30, 2019, primarily related to our high-protein and Project 24 initiatives. We incurred capital expenditures for our discontinued operations of $4.2 million. Capital spending for the remainder of 2019 is expected to be between approximately $20.0 million and $25.0 million for various projects, which are expected to be financed with available borrowings under our credit facilities and cash provided by operating activities.

Our business is highly sensitive to the price of commodities, particularly for corn, ethanol, distillers grains, corn oil and natural gas. We use derivative financial instruments to reduce the market risk associated with fluctuations in commodity prices. Sudden changes in commodity prices may require cash deposits with brokers for margin calls or significant liquidity with little advanced notice to meet margin calls, depending on our open derivative positions. We continuously monitor our exposure to margin calls and believe we will continue to maintain adequate liquidity to cover margin calls from our operating results and borrowings.

On June 18, 2019, the company announced that its board of directors has decided to suspend its future quarterly cash dividend following the June 14, 2019 dividend payment, in order to retain and redirect cash flow to the company’s Project 24 operating expense equalization plan, the deployment of high-protein technology and its stock repurchase program.

For each calendar quarter commencing with the quarter ended September 30, 2015, the partnership agreement requires the partnership to distribute all available cash, as defined, to its partners, including us, within 45 days after the end of each calendar quarter. Available cash generally means all cash and cash equivalents on hand at the end of that quarter less cash reserves established by our general partner plus all or any portion of the cash on hand resulting from working capital borrowings made subsequent to the end of that quarter. On October 17, 2019, the board of directors of the general partner of the partnership declared a cash distribution of $0.475 per unit on outstanding common and subordinated units. The distribution is payable on November 8, 2019, to unitholders of record at the close of business on November 1, 2019.

In August 2014, we announced a share repurchase program of up to $100 million of our common stock. Under the program, we may repurchase shares in open market transactions, privately negotiated transactions, accelerated share buyback programs, tender offers or by other means. The timing and amount of repurchase transactions are determined by our management based on market conditions, share price, legal requirements and other factors. The program may be suspended, modified or discontinued at any time without prior notice. During the three months ended September 30, 2019, we purchased a total of 1,662,607 shares of our common stock for approximately $16.0 million. To date, we have repurchased 5,979,233 of common stock for approximately $75.6 million under the program. On October 30, 2019, the company's board of directors authorized an additional $100 million share repurchase taking the previously authorized amount from $100 million to $200 million.

We believe we have sufficient working capital for our existing operations. Furthermore, our liquidity position has improved as a result of the partial sale of GPCC during the third quarter of 2019, as well as the sale of three of our ethanol plants and Fleischmann's Vinegar during the fourth quarter of 2018. The majority of net cash proceeds from the sales of three of our ethanol plants and Fleischmann's Vinegar, net of fees and taxes, were used to pay off the outstanding term loan balance. Net cash proceeds from the partial sale of GPCC, net of fees and taxes, were used to repurchase the company's common stock as part of our share repurchase program, continued investment into our high-protein initiative and general corporate purposes. A continued sustained period of unprofitable operations, however, may strain our liquidity making it difficult to maintain compliance with our financing arrangements. We may sell additional assets or equity or borrow capital to improve or preserve our liquidity, expand our business or acquire existing businesses. We cannot provide assurance that we will be able to secure funding necessary for additional working capital or these projects at reasonable terms, if at all.

Debt

For additional information related to our debt, see *Note 9 – Debt* included as part of the notes to consolidated financial statements and *Note 12 – Debt* included as part of the notes to consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2018.

We were in compliance with our debt covenants at September 30, 2019. Based on our forecasts, we believe we will maintain compliance at each of our subsidiaries for the next twelve months or have sufficient liquidity available on a consolidated basis to resolve noncompliance. We cannot provide assurance that actual results will approximate our forecasts or that we will inject the necessary capital into a subsidiary to maintain compliance with its respective covenants. In the event a subsidiary is unable to comply with its debt covenants, the subsidiary's lenders may determine that an event of default has occurred, and following notice, the lenders may terminate the commitment and declare the unpaid balance due and payable.

As outlined in *Note 9 - Debt*, we use LIBOR as a reference rate for certain revolving credit facilities. LIBOR is currently set to be phased out at the end of 2021. At this time, it is not possible to predict the effect of this change or the alternative reference rate to be used. We will need to renegotiate certain credit facilities to determine the interest rate to replace LIBOR with the new standard that is established. As such, the potential effect of any such event on interest expense cannot yet be determined.

Corporate Activities

On June 21, 2019, we issued $105.0 million of 4.00% convertible senior notes due in 2024, or the 4.00% notes. We used approximately $57.8 million of the net proceeds to repurchase the $56.8 million outstanding principal amount of its 3.25% convertible senior notes due October 1, 2019 in cash, including accrued and unpaid interest, in privately negotiated transactions concurrently with the offering of 4.00% notes. On July 19, 2019, we closed on the issuance of an additional $10.0 million aggregate principal amount of the 4.00% notes (the "Option Notes") to the initial purchasers. The Option Notes provided us with net proceeds, after deducting commissions and our offering expenses, of approximately $9.5 million. The Option Notes have the same terms as the 4.00% notes issued on June 21, 2019, and were issued under the same Indenture dated as of June 21, 2019. After the issuance of the Option Notes, total aggregate principal of the 4.00% notes outstanding is $115.0 million.

The 4.00% notes are senior, unsecured obligations, with interest payable on January 1 and July 1 of each year, beginning January 1, 2020, at a rate of 4.00% per annum. The initial conversion rate will be 64.1540 shares of our common stock per $1,000 principal amount of the 4.00% notes, which is equivalent to an initial conversion price of approximately $15.59 per share of our common stock. The conversion rate will be subject to adjustment upon the occurrence of certain events. In addition, we may be obligated to increase the conversion rate for any conversion that occurs in connection with certain corporate events, including our calling the 4.00% notes for redemption. We may settle the 4.00% notes in cash, common

stock or a combination of cash and common stock. At September 30, 2019, the outstanding principal balance was $82.2 million on the 4.00% notes.

In August 2016, we issued $170.0 million of 4.125% convertible senior notes due in 2022, or 4.125% notes, which are senior, unsecured obligations with interest payable on March 1 and September 1 of each year. Prior to March 1, 2022, the 4.125% notes are not convertible unless certain conditions are satisfied. The initial conversion rate is 35.7143 shares of common stock per $1,000 of principal which is equal to a conversion price of approximately $28.00 per share. The conversion rate is subject to adjustment upon the occurrence of certain events, including when the quarterly cash dividend exceeds $0.12 per share. We may settle the 4.125% notes in cash, common stock or a combination of cash and common stock. At September 30, 2019, the outstanding principal balance was $147.6 million on the 4.125% notes.

Ethanol Production Segment

We have small equipment financing loans, finance leases on equipment or facilities, and other forms of debt financing.

Agribusiness and Energy Services Segment

Green Plains Trade has a $300.0 million senior secured asset-based revolving credit facility to finance working capital up to the maximum commitment based on eligible collateral, which matures in July of 2022. This facility can be increased by up to $70.0 million with agent approval. Advances are subject to variable interest rates equal to a daily LIBOR rate plus 2.25% or the base rate plus 1.25%. The unused portion of the credit facility is also subject to a commitment fee of 0.375% per annum. At September 30, 2019, the outstanding principal balance was $119.6 million on the facility and the interest rate was 4.17%.

Green Plains Grain has a $100.0 million senior secured asset-based revolving credit facility to finance working capital up to the maximum commitment based on eligible collateral, which matures in June of 2022. This facility can be increased by up to $75.0 million with agent approval and up to $50.0 million for seasonal borrowings. Total commitments outstanding under the facility cannot exceed $225.0 million. On June 28, 2019, the company amended the credit facility to extend the existing maturity date from July 26, 2019 to June 28, 2022 and lower the maximum commitment from $125.0 million to $100.0 million. Depending on utilization, the total unused portion of the $100.0 million revolving credit facility is also subject to a commitment fee ranging from 0.375% to 0.50% per annum. At September 30, 2019, the outstanding principal balance was $20.0 million and the interest rate was 5.06%.

Green Plains Grain has entered into short-term inventory financing agreements with a financial institution. At September 30, 2019, 0.9 million bushels of corn had been designated as collateral under these agreements at initial values totaling $3.8 million. The company has accounted for the agreements as short-term notes, rather than sales, and has elected the fair value option to offset fluctuations in market prices of the inventory. At September 30, 2019, the short-term notes payable were valued at $4.0 million and our interest rate was 4.68%.

Green Plains Commodity Management has an uncommitted $20.0 million revolving credit facility which matures April 30, 2023 to finance margins related to its hedging programs. Advances are subject to variable interest rates equal to LIBOR plus 1.75%. At September 30, 2019, the outstanding principal balance was $5.5 million and the interest rate was 3.66%. The facility was amended in October 2019, increasing the maximum commitment from $20.0 million to $30.0 million.

Food and Ingredients Segment

Upon the disposition of Green Plains Cattle, the food and ingredient segment no longer has any forms of debt financing. Refer to *Note 3 – Acquisitions, Dispositions and Discontinued Operations* for further discussion on the disposition and discontinued operations classification.

Partnership Segment

Green Plains Partners, through a wholly owned subsidiary, has a $200.0 million revolving credit facility to fund working capital, acquisitions, distributions, capital expenditures and other general partnership purposes. The credit facility matures on July 1, 2020, and as a result, was reclassified to current maturities of long-term debt during the three months ended September 30, 2019. We intend to renew the revolving credit facility or replace it with a new another line of credit on or before the expiration date. The credit facility can be increased by an additional $20.0 million without the consent of the lenders. At September 30, 2019, the outstanding principal balance of the facility was $132.0 million and the interest rate was 5.04%.

Contractual Obligations

Contractual obligations as of September 30, 2019, were as follows (in thousands):

Contractual Obligations	Payments Due By Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term and short-term debt obligations [1]	$ 590,845	$ 282,142	$ 172,028	$ 117,021	$ 19,654
Interest and fees on debt obligations [2]	67,644	24,705	24,987	10,297	7,655
Operating lease obligations [3]	71,474	19,329	21,968	10,865	19,312
Other	19,952	2,517	6,871	2,351	8,213
Purchase obligations:					
Forward grain purchase contracts [4]	144,099	140,777	2,155	1,167	-
Other commodity purchase contracts [5]	127,570	108,900	16,577	2,093	-
Other	41	41	-	-	-
Total contractual obligations	$ 1,021,625	$ 578,411	$ 244,586	$ 143,794	$ 54,834

(1) Includes the current portion of long-term debt and future finance lease obligations and excludes the effect of any debt discounts and issuance costs.
(2) Interest amounts are calculated over the terms of the loans using current interest rates, assuming scheduled principal and interest amounts are paid pursuant to the debt agreements. Includes administrative and/or commitment fees on debt obligations.
(3) Operating lease costs are primarily for railcars and office space.
(4) Purchase contracts represent index-priced and fixed-price contracts. Index purchase contracts are valued at current quarter-end prices.
(5) Includes fixed-price ethanol, dried distillers grains and natural gas purchase contracts.

Critical Accounting Policies and Estimates

Key accounting policies, including those relating to revenue recognition, depreciation of property and equipment, carrying value of intangible assets, impairment of long-lived assets and goodwill, derivative financial instruments, and accounting for income taxes, are impacted significantly by judgments, assumptions and estimates used in the preparation of the consolidated financial statements. Information about our critical accounting policies and estimates are included in our annual report on Form 10-K for the year ended December 31, 2018.

Off-Balance Sheet Arrangements

With the exception of one director, none of our officers or employees holds an ownership interest in any of our joint ventures or entities. As of September 30, 2019, we owned a 50% interest in GPCC, a joint venture that owns and operates six cattle feeding operations. Mr. Ejnar Knudsen, a member of the company's board of directors, has an indirect ownership interest in GPCC of 0.0736% by reason of his ownership in TGAM Agribusiness Fund LP. Based on the purchase price, the value of that ownership interest is approximately $0.1 million. Mr. Knudsen also is the CEO and partial owner of AGR Partners LLC (AGR) which provides investment advisory services to TGAM Agribusiness Fund LP pursuant to a sub-advisory agreement between AGR Partners LLC and Nuveen Alternative Advisors LLC, which is the investment manager for TGAM Agribusiness Fund LP.

At September 30, 2019, the outstanding principal balance of GPCC's senior secured asset-based revolving credit facility was $355.7 million, of which our pro rata portion was $177.9 million, none of which is reflected as a liability on our consolidated balance sheet.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We use various financial instruments to manage and reduce our exposure to various market risks, including changes in commodity prices and interest rates. We conduct all of our business in U.S. dollars and are not currently exposed to foreign currency risk.

Interest Rate Risk

We are exposed to interest rate risk through our loans which bear interest at variable rates. Interest rates on our variable-rate debt are based on the market rate for the lender's prime rate or LIBOR. A 10% increase in interest rates would affect our

interest cost by approximately $1.3 million per year. At September 30, 2019, we had $530.4 million in debt, $281.1 million of which had variable interest rates.

For additional information related to our debt, see *Note 9 – Debt* included as part of the notes to consolidated financial statements and *Note 12 – Debt* included as part of the notes to consolidated financial statements included in our annual report on Form 10-K for the year ended December 31, 2018.

Commodity Price Risk

Our business is highly sensitive to commodity price risk, particularly for ethanol, corn, distillers grains, corn oil and natural gas. Ethanol prices are sensitive to world crude oil supply and demand, the price of crude oil, gasoline and corn, the price of substitute fuels, refining capacity and utilization, government regulation and consumer demand for alternative fuels. Corn prices are affected by weather conditions, yield, changes in domestic and global supply and demand, and government programs and policies. Distillers grains prices are impacted by livestock numbers on feed, prices for feed alternatives and supply, which is associated with ethanol plant production. Natural gas prices are influenced by severe weather in the summer and winter and hurricanes in the spring, summer and fall. Other factors include North American energy exploration and production, and the amount of natural gas in underground storage during injection and withdrawal seasons.

To reduce the risk associated with fluctuations in the price of ethanol, corn, distillers grains, corn oil, and natural gas, at times we use forward fixed-price physical contracts and derivative financial instruments, such as futures and options executed on the Chicago Board of Trade, the New York Mercantile Exchange and the Chicago Mercantile Exchange. We focus on locking in favorable operating margins, when available, using a model that continually monitors market prices for corn, natural gas and other inputs relative to the price for ethanol and distillers grains at each of our production facilities. We create offsetting positions using a combination of forward fixed-price purchases, sales contracts and derivative financial instruments. As a result, we frequently have gains on derivative financial instruments that are offset by losses on forward fixed-price physical contracts or inventories and vice versa. Our results are impacted by a mismatch of gains or losses associated with the derivative instrument during a reporting period when the physical commodity purchases or sale has not yet occurred. During the three and nine months ended September 30, 2019, revenues included net gains of $12.4 million and net losses of $12.0 million, respectively, and cost of goods sold included net gains of $2.2 million and net losses of $0.3 million, respectively, associated with derivative financial instruments.

Ethanol Production Segment

In the ethanol production segment, net gains and losses from settled derivative instruments are offset by physical commodity purchases or sales to achieve the intended operating margins. To reduce commodity price risk caused by market fluctuations, we enter into exchange-traded futures and options contracts that serve as economic hedges.

Our exposure to market risk, which includes the impact of our risk management activities resulting from our fixed-price purchase and sale contracts and derivatives, is based on the estimated net income effect resulting from a hypothetical 10% change in price for the next 12 months starting on September 30, 2019, which is as follows (in thousands):

Commodity	Estimated Total Volume Requirements for the Next 12 Months (1)	Unit of Measure		Net Income Effect of Approximate 10% Change in Price
Ethanol	1,123,000	Gallons	$	129,089
Corn	387,000	Bushels	$	114,112
Distillers grains	2,900	Tons (2)	$	26,532
Corn oil	292,000	Pounds	$	5,368
Natural gas	31,200	MmBTU	$	4,180

(1) Estimated volumes assume production at full capacity.
(2) Distillers grains quantities are stated on an equivalent dried ton basis.

Agribusiness and Energy Services Segment

In the agribusiness and energy services segment, our inventories, physical purchase and sale contracts and derivatives are marked to market. To reduce commodity price risk caused by market fluctuations for purchase and sale commitments of grain and grain held in inventory, we enter into exchange-traded futures and options contracts that serve as economic hedges.

The market value of exchange-traded futures and options used for hedging are highly correlated with the underlying market value of grain inventories and related purchase and sale contracts for grain. The less correlated portion of inventory and purchase and sale contract market values, known as basis, is much less volatile than the overall market value of exchange-traded futures and tends to follow historical patterns. We manage this less volatile risk by constantly monitoring our position relative to the price changes in the market. Inventory values are affected by the month-to-month spread in the futures markets. These spreads are also less volatile than overall market value of our inventory and tend to follow historical patterns, but cannot be mitigated directly. Our accounting policy for futures and options, as well as the underlying inventory held for sale and purchase and sale contracts, is to reflect their current market values and include gains and losses in the consolidated statement of operations.

Our daily net commodity position consists of inventories related to purchase and sale contracts and exchange-traded contracts. The fair value of our position was approximately $3.7 million for grain at September 30, 2019. Our market risk at that date, based on the estimated net income effect resulting from a hypothetical 10% change in price, was approximately $0.3 million.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure information that must be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, as appropriate, to allow timely decisions regarding required financial disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Under the supervision and participation of our chief executive officer and chief financial officer, management carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2019, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act and concluded that our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

Management is responsible for establishing and maintaining effective internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles. There were no material changes in our internal control over financial reporting that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

We are currently involved in litigation that has arisen during the ordinary course of business. We do not believe this litigation will have a material adverse effect on our financial position, results of operations or cash flows.

Item 1A. Risk Factors.

Investors should carefully consider the discussion of risks and the other information in our annual report on Form 10-K for the year ended December 31, 2018, in Part I, Item 1A, “Risk Factors,” and the discussion of risks and other information in Part I, Item 2, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” under “Cautionary Information Regarding Forward-Looking Statements,” of this report. Investors should also carefully consider the discussion of risks with the partnership under the heading “Risk Factors” and other information in their annual report on Form 10-K for the year ended December 31, 2018. Although we have attempted to discuss key factors, our investors need to be aware that other risks may prove to be important in the future. New risks may emerge at any time and we cannot predict such risks or estimate the extent to which they may affect our financial performance. The following risk factors supplement and/or updates risk factors previously disclosed and should be considered in conjunction with the other information included in, or incorporated by reference in, this quarterly report on Form 10-Q.

Financial performance of our equity method investments are subject to risks beyond our control and can vary substantially from period to period.

The company invests in certain limited liability companies, which are accounted for using the equity method of accounting. This means that the company’s share of net income or loss in the investee increases or decreases, as applicable, the carrying value of the investment. By operating a business through this arrangement, we do not have control over operating decisions as we would if we owned the business outright. Specifically, we cannot act on major business initiatives without the consent of the other investors.

The company recognizes these investments as a separate line item in the consolidated balance sheets its proportionate share of earnings on a separate line item in the consolidated statements of operations. As a result, the amount of net investment income recognized from these investments can vary substantially from period to period. Any losses experienced by these entities could adversely impact our results of operations and the value of our investment.

Our risk management and commodity trading strategies could be ineffective and expose us to decreased liquidity.

As market conditions warrant, we use forward contracts to sell some of our ethanol, distillers grains, corn oil, and live cattle or buy some of the corn, natural gas, or feeder cattle we need to partially offset commodity price volatility. We also engage in other hedging transactions and other commodity trading involving exchange-traded futures contracts for corn, natural gas, cattle and ethanol and other agricultural commodities. The financial impact of these activities depends on the price of the commodities involved and/or our ability to physically receive or deliver the commodities.

Hedging arrangements expose us to risk of financial loss when the counterparty defaults on its contract or, in the case of exchange-traded contracts, when the expected differential between the price of the underlying and physical commodity changes. Hedging activities can result in losses when a position is purchased in a declining market or sold in a rising market. Hedging losses may be offset by a decreased cash price for corn, natural gas and feeder cattle and an increased cash price for ethanol, distillers grains, live cattle and corn oil. We vary the amount of hedging and other risk mitigation strategies we undertake and sometimes choose not to engage in hedging transactions at all. We cannot provide assurance that our risk management and commodity trading strategies and decisions will be profitable or effectively offset commodity price volatility. If they are not our results of operations and financial position may be adversely affected.

The use of derivative financial instruments frequently involves cash deposits with brokers, or margin calls. Sudden changes in commodity prices may require additional cash deposits immediately. Depending on our open derivative positions, we may need additional liquidity with little advance notice to cover margin calls. While we continuously monitor our exposure to margin calls, we cannot guarantee we will be able to maintain adequate liquidity to cover margin calls in the future.

The interest rates under our revolving credit facility may be impacted by the phase-out of LIBOR.

LIBOR is the basic rate of interest widely used as a reference for setting the interest rates on loans globally. We use LIBOR as a reference rate for our revolving credit facilities. In 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out LIBOR by the end of 2021. It is unclear if LIBOR will cease to exist at that time or if new methods of calculating LIBOR will be established such that it continues to exist after 2021. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, a steering committee comprised of large U.S. financial institutions, is considering replacing U.S. dollar LIBOR with a new index, the Secured Overnight Financing Rate ("SOFR"), calculated using short-term repurchase agreements backed by Treasury securities. We are evaluating the potential impact of the eventual replacement of the LIBOR benchmark interest rate, however, we are not able to predict whether LIBOR will cease to be available after 2021, whether SOFR will become a widely accepted benchmark in place of LIBOR, or what the impact of such a possible transition to SOFR may be on our business, financial condition, and results of operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Employees surrender shares when restricted stock grants are vested to satisfy statutory minimum required payroll tax withholding obligations.

The following table lists the shares that were surrendered during the third quarter of 2019:

Period	Total Number of Shares Withheld for Employee Awards	Average Price Paid per Share
July 1 - July 31	-	$ -
August 1 - August 31	441	7.91
September 1 - September 30	489	8.67
Total	930	$ 8.31

In August 2014, we announced a share repurchase program of up to $100 million of our common stock. Under this program, we may repurchase shares in open market transactions, privately negotiated transactions, accelerated buyback programs, tender offers or by other means. The timing and amount of the transactions are determined by management based on its evaluation of market conditions, share price, legal requirements and other factors. The program may be suspended, modified or discontinued at any time, without prior notice. On October 30, 2019, the company's board of directors authorized an additional $100 million share repurchase taking the previously authorized amount from $100 million to $200 million.

The following table lists the shares repurchased under the share repurchase program during the third quarter of 2019.

Period	Number of Shares Purchased	Average Price Paid per Share	Number of Shares Repurchased as Part of Repurchase Program	Total Number of Shares Repurchased as Part of Repurchase Program	Approximate Dollar Value of Shares that may yet be Repurchased under the Program (2) (in thousands)
July 1 - July 31	-	$ -	-	4,316,626	$ 40,420
August 1 - August 31	315,932 (1)	7.67	300,932	4,617,558	38,097
September 1 - September 30	1,361,675	10.03	1,361,675	5,979,233	24,406
Total	1,677,607	$ 9.59	1,662,607	5,979,233	$ 24,406

(1) Includes 300,932 shares repurchased by the company under the share repurchase program. Also includes one open market purchase by Eugene S. Edwards, Director, of 15,000 shares at $7.15 per share on August 15, 2019, as previously disclosed in their Form 4 filing with the SEC.

(2) Shares that may be repurchased under the plan are not reflective of the increase in authorized share repurchases from $100 to $200 million as this increase was authorized by the board of directors subsequent to September 30, 2019.

Since inception, the company has repurchased 5,979,233 shares of common stock for approximately $75.6 million under the program.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibit Index

Exhibit No.	Description of Exhibit
2.1	Securities Purchase Agreement, dated as of September 6, 2019, by and among Green Plains Inc., Green Plains Cattle Company LLC, TGAM Agribusiness Fund Holdings-B LP, and StepStone Atlantic Fund, L.P. (Certain schedules to the Securities Purchase Agreement have been omitted. The company will furnish such schedules to the SEC upon request.) (incorporated herein by reference to Exhibit 2.1 of the company's Current Report on Form 8-K filed September 9, 2019)
10.1	Second Amended and Restated Limited Liability Company Agreement of Green Plains Cattle Company LLC, dated September 6, 2019 (Certain schedules to the Second Amended and Restated Limited Liability Company Agreement have been omitted. The company will furnish such schedules to the SEC upon request.) (incorporated herein by reference to Exhibit 10.1 of the company's Current Report on Form 8-K filed September 9, 2019)
10.2	Promissory Note between Green Plains Inc. and StepStone Atlantic Fund, L.P., dated September 6, 2019 (incorporated herein by reference to Exhibit 10.2 of the company's Current Report on Form 8-K filed September 9, 2019)
10.3	Amended and Restated Credit Agreement, dated as of August 28, 2019, by and among Green Plains Cattle Company LLC, Bank of the West and ING Capital LLC, as Joint Administrative Agents, and the lenders party to the Credit Agreement (Certain schedules to the Amended and Restated Credit Agreement have been omitted. The company will furnish such schedules to the SEC upon request.) (incorporated herein by reference to Exhibit 10.3 of the company's Current Report on Form 8-K filed September 9, 2019)
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following information from Green Plains Inc.'s Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019, formatted in Inline Extensible Business Reporting Language (iXBRL): i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Cash Flows, and (v) the Notes to Consolidated Financial Statements
104	The cover page from Green Plains Inc.'s Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2019, formatted in iXBRL.

SIGNATURES

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

GREEN PLAINS INC.
(Registrant)

Date: November 7, 2019

By: *_/s/ Todd A. Becker_*
Todd A. Becker
President and Chief Executive Officer
(Principal Executive Officer)

Date: November 7, 2019

By: *_/s/ G. Patrich Simpkins Jr._*
G. Patrich Simpkins Jr.
Chief Financial Officer
(Principal Financial Officer)

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) AND SECTION 302 OF THE SARBANES OXLEY ACT OF 2002

I, Todd A. Becker, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Green Plains Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report)that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2019

/s/ Todd A. Becker
Todd A. Becker
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) AND SECTION 302 OF THE SARBANES OXLEY ACT OF 2002

I, G. Patrich Simpkins Jr., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Green Plains Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report)that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2019

/s/ G. Patrich Simpkins Jr.
G. Patrich Simpkins Jr.
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Green Plains Inc. (the "company") on Form 10-Q for the fiscal quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Todd A. Becker, President and Chief Executive Officer of the company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the company.

Date: November 7, 2019

/s/ Todd A. Becker
Todd A. Becker
President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Green Plains Inc. (the "company") on Form 10-Q for the fiscal quarter ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, G. Patrich Simpkins Jr., Chief Financial Officer of the company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the company.

Date: November 7, 2019

/s/ G. Patrich Simpkins Jr.
G. Patrich Simpkins Jr.
Chief Financial Officer