UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

Form 10-K

(Mark One)

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

For the fiscal year ended December 31, 2016

or

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

Commission file number: 001-35073

Gevo, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**87-0747704**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
345 Inverness Drive South, Building C, Suite 310, Englewood, CO	**80112**
(Address of Principal Executive Offices)	(Zip Code)

(303) 858-8358

(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $0.01 per share	**NASDAQ Capital Market**

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

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

The aggregate market value was $52,648,520 based on the closing sale price of the common stock as reported on the NASDAQ on June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter. Shares of common stock held by each officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 28, 2017, the number of outstanding shares of the registrant's common stock, par value $0.01 per share, was 14,910,334.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates certain information by reference from the registrant's proxy statement for the 2017 annual meeting of stockholders to be filed no later than 120 days after the end of the registrant's fiscal year ended December 31, 2016.

GEVO, INC.
FORM 10-K—ANNUAL REPORT
For the Fiscal Year Ended December 31, 2016
Table of Contents

Forward-Looking Statements

This report contains forward-looking statements within the meaning of Section 21 E of the Securities Exchange Act of 1934 (the "Exchange Act"). When used anywhere in this Annual Report on Form 10-K (this "Report"), the words "expect," "believe," "anticipate," "estimate," "intend," "plan" and similar expressions are intended to identify forward-looking statements. These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. These forward-looking statements include, among other things, statements about: our ability to raise additional funds to restructure our debt, our ability to produce isobutanol on a commercial level and at a profit, achievement of advances in our technology platform, the success of our retrofit production model, our ability to expand our Luverne, Minnesota facility for our first commercial hydrocarbons facility, our ability to gain market acceptance for our products, additional competition and changes in economic conditions and the continued listing of our common stock on NASDAQ. Important factors could cause actual results to differ materially from those indicated or implied by forward-looking statements such as those contained in documents we have filed with the U.S. Securities and Exchange Commission (the "SEC"), including this Report in "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors" and subsequent reports on Form 10-Q. All forward-looking statements in this Report are qualified entirely by the cautionary statements included in this Report and such other filings. These risks and uncertainties or other important factors could cause actual results to differ materially from results expressed or implied by forward-looking statements contained in this Report. These forward-looking statements speak only as of the date of this Report. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, and readers should not rely on the forward-looking statements as representing the Company's views as of any date subsequent to the date of the filing of this Report. Unless the context requires otherwise, in this Report the terms "we," "us," "our" and "Company" refer to Gevo, Inc. and its wholly-owned and indirect subsidiaries.

This Report contains estimates and other information concerning our target markets that are based on industry publications, surveys and forecasts, including those generated by SRI Consulting, a division of Access Intelligence, LLC, Chemical Market Associates, Inc., the U.S. Energy Information Association (the "EIA"), the International Energy Agency (the "IEA"), the Renewable Fuels Association, and Nexant, Inc. ("Nexant"). Certain target market sizes presented in this Report have been calculated by us (as further described below) based on such information. This information involves a number of assumptions and limitations and you are cautioned not to give undue weight to this information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

Reverse Stock Split

On December 21, 2016, the Board of Directors of the Company approved a reverse split of the Company's common stock, par value $0.01, at a ratio of one-for-twenty. This reverse stock split became effective on January 5, 2017 and, unless otherwise indicated, all share amounts, per share data, share prices, exercise prices and conversion rates set forth in these notes and the accompanying consolidated financial statements have, where applicable, been adjusted retroactively to reflect this reverse stock split.

NASDAQ Market Price Compliance

On January 25, 2017, Gevo, Inc. announced that it received a letter from The NASDAQ Stock Market LLC notifying the Company that it has regained compliance with the NASDAQ Capital Market's minimum bid price continued listing requirement. The letter noted that as of January 20, 2017, the Company evidenced a closing bid price of its common stock in excess of the $1.00 minimum requirement for at least ten consecutive trading days. Accordingly, the Company has regained compliance with NASDAQ Marketplace Rule 5550(a) (2) and NASDAQ considers the matter closed.

Conventions that Apply to this Report

With respect to calculation of product market volumes:

- product market volumes are provided solely to show the magnitude of the potential markets for isobutanol and the products derived from it. They are not intended to be projections of our actual isobutanol production or sales;
- product market volume calculations for fuels markets are based on data available for the year 2013;
- product market volume calculations for chemicals markets are based on data available for the year 2012; and
- volume data with respect to target market sizes is derived from data included in various industry publications, surveys and forecasts generated by the EIA, the IEA and Nexant.

We have converted these market sizes into volumes of isobutanol as follows:

- we calculated the size of the market for isobutanol as a gasoline blendstock and oxygenate by multiplying the world gasoline market volume by an estimated 12.5% by volume isobutanol blend ratio;
- we calculated the size of the specialty chemicals markets by substituting volumes of isobutanol equivalent to the volume of products currently used to serve these markets;
- we calculated the size of the petrochemicals and hydrocarbon fuels markets by calculating the amount of isobutanol that, if converted into the target products at theoretical yield, would be needed to fully serve these markets (in substitution for the volume of products currently used to serve these markets); and
- for consistency in measurement, where necessary we converted all market sizes into gallons.

Conversion into gallons for the fuels markets is based upon fuel densities identified by Air BP Ltd. and the American Petroleum Institute.

PART I

Item 1. Business.

Company Overview

We are a renewable chemicals and next generation biofuels company. We have developed proprietary technology that uses a combination of synthetic biology, metabolic engineering, chemistry and chemical engineering to focus primarily on the production of renewable isobutanol as well as related products from renewable feedstocks. Isobutanol is a four-carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints and coatings or as a value-added gasoline blendstock. Isobutanol can also be converted into butenes using dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of hydrocarbon fuels, including isooctane, isooctene and alcohol-to-jet-fuel ("ATJ"), as well as lubricants, polyester, rubber, plastics, fibers and other polymers. We believe that the products derived from isobutanol have potential applications in substantially all of the global hydrocarbon fuels markets and in approximately 40% of the global petrochemicals markets.

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology® ("GIFT®"), an integrated technology platform for the efficient production and separation of renewable isobutanol. GIFT® consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be compatible with the existing approximately 25 billion gallons per year ("BGPY") of global operating ethanol production capacity, as estimated by the Renewable Fuels Association.

GIFT® is designed to permit (i) the retrofit of existing ethanol capacity to produce isobutanol, ethanol or both products simultaneously or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility's existing ethanol production by adding additional fermentation capacity side-by-side with the facility's existing ethanol fermentation capacity (collectively referred to as "Retrofit"). Having the flexibility to switch between the production of isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT® is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a relatively rapid route to isobutanol production from the fermentation of renewable feedstocks. Alternatively, GIFT® can be deployed at a greenfield or brownfield site to produce isobutanol only. We believe that our production route will be cost-efficient, will enable relatively rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

Our Strategy

Our strategy is to commercialize our isobutanol for use directly as a specialty chemical and fuel blendstock and for conversion into plastics, fibers, polyester, rubber, other polymers and hydrocarbon fuels. Key elements of our strategy include:

- ***Expand adoption of our isobutanol, hydrocarbon fuels and other products across multiple applications and markets.***
- ***Continue to optimize our isobutanol technology at commercial scale at our production facility in Luverne, Minnesota, including expanding isobutanol production.***
- ***Successfully add the capability to produce our renewable hydrocarbon products at commercial scale at our production facility in Luverne, Minnesota or potentially at another location.***
- ***Expand our production capacity via Retrofit of additional existing ethanol facilities, or the construction of greenfield or brownfield isobutanol projects, with an emphasis on licensing.***

Our Retrofit Strategy

We plan to commercialize our isobutanol primarily through a strategy of Retrofitting existing ethanol production facilities to produce isobutanol and related renewable products and have developed our technology platform to be compatible with the existing approximately 25 BGPY of global operating ethanol production capacity. We believe that our design will enable a switch between the production of isobutanol and ethanol, or the ability to produce both products simultaneously, which will allow optimization of asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions.

The Retrofit approach allows us to project potentially lower capital outlays and a faster commercial deployment schedule than the construction of new plants. We believe the ability of GIFT® to convert sugars from multiple renewable feedstocks into isobutanol will enable us to leverage the abundant domestic sources of historically low cost grain feedstocks (e.g., corn) currently used for

ethanol production and will potentially enable the expansion of our production capacity into international markets that use sugar cane or other feedstocks that are prevalent outside of the U.S.

We plan to secure access to existing ethanol production facilities through joint ventures, licensing arrangements, tolling partnerships and direct acquisitions. We then plan to work with design, engineering, and construction partners to deploy GIFT® through Retrofits of these production facilities.

Our Retrofit at the Agri-Energy Facility

In September 2010, we acquired a 22 million gallon per year ("MGPY") ethanol production facility in Luverne, Minnesota (the "Agri-Energy Facility"). The Agri-Energy Facility is a traditional dry-mill facility, which means that it uses dry-milled corn as a feedstock. In partnership with ICM, Inc. ("ICM"), we developed a detailed Retrofit design for this facility and began the Retrofit in 2011. In May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol, we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates.

In 2013, we made modifications to our Agri-Energy Facility designed to increase the isobutanol production rate. In June 2013, we resumed the limited production of isobutanol, operating one fermenter and one GIFT® separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify our results with a second configuration of equipment. For these initial production runs, we demonstrated fermentation operations at commercial scale combined with the use of our GIFT® separation system using a dextrose (sugar) feedstock. Based on the results of these initial production runs, in October 2013 we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems.

In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility in order to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production.

In September 2015, we began deploying additional capital at our Agri-Energy Facility, primarily designed to decrease the cost of production for isobutanol by bringing parts of the process to the facility that have previously been done off-site by third parties. Key equipment installed at the plant included a distillation system to purify isobutanol on site, an addition to our seed train to improve our ability to grow our yeast on site and a stainless steel fermenter to replace one of the existing carbon steel fermenters that had reached the end of its useful life. Completed in 2016, the installation of this equipment enabled increased isobutanol production volumes and decreased isobutanol production costs at our Agri-Energy Facility.

Through December 31, 2016, we have incurred capital costs of approximately $70.8 million on the Retrofit of the Agri-Energy Facility. The Retrofit of the Agri-Energy Facility includes a number of additional capital costs that are unique to the design of the facility, including additional equipment that we believe will allow us to switch between ethanol and isobutanol production, modifications to increase the potential production capacity of GIFT® at this facility and the establishment of an enhanced yeast seed train to accelerate the adoption of improved yeast strains at this facility and at future plants. Capital expenditures at the Agri-Energy Facility also include upfront design and engineering costs, plant modifications identified as necessary during initial startup operations for the production of isobutanol and capitalized interest.

Until May 2012, when we commenced initial Retrofit startup operations for the production of isobutanol at the Agri-Energy Facility, we derived revenue only from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. Continued ethanol production during the Retrofit process allowed us to retain local staff for the operation of the plant, maintain the equipment and generate cash flow. Our Retrofit strategy includes the ability to switch between the production of isobutanol and ethanol, or produce both products simultaneously, with an emphasis on maximizing cash flows at a site. Historically, we have been able to switch between the production of isobutanol and ethanol at the Agri-Energy Facility. In the future, we believe that we will be able to continue to transition between the production and sale of ethanol and related products at the Agri-Energy Facility, in whole or in part, if we were to project positive cash flows from ethanol operations versus maintaining the facility at idle or producing isobutanol, including any costs related to the transition, but there is no guarantee that this will be the case. As a result, the historical operating results of our subsidiary, Agri-Energy, LLC ("Agri-Energy"), and the operating results reported during the Retrofit to isobutanol production may not be indicative of future operating results for Agri-Energy or Gevo's

consolidated results. The future return on our invested capital depends on our ability to maximize cash flows from the Retrofit of the Agri-Energy Facility.

We produced approximately 440,000 gallons of isobutanol at our Agri-Energy Facility during 2016, a record amount for Gevo. During 2016, we sold the equivalent of approximately 200,000 gallons of isobutanol, either directly as isobutanol or as renewable hydrocarbons (jet fuel, isooctane and isooctene).

We believe that the current configuration of the Agri Energy Facility, whereby we co-produce isobutanol and ethanol utilizing one fermenter for isobutanol production and three fermenters for ethanol production, will not enable us to become profitable on a consolidated basis. We believe that the best way for us to become profitable is convert the Agri Energy Facility to the sole production of isobutanol (the "Agri-Energy Facility Expansion"), with some percentage of such isobutanol volumes to be further processed into hydrocarbons such as ATJ and isooctane. The Agri Energy Facility represents the best site to expand our isobutanol production because it leverages the equipment we have already installed at the site, in particular our GIFT® technology system.

We are currently conducting engineering work to determine the ultimate production capacity of the Agri Energy Facility following the Agri-Energy Facility Expansion, as well as the capital cost associated with the project. The binding supply contracts, which we anticipate signing in 2017, are expected to form the basis on which we would set the specific configuration of the plant in terms of end product mix between isobutanol, ATJ and isooctane. Once this preliminary engineering work is completed, which we expect will be in the second half of 2017, we expect to be able to communicate publicly the estimated scale, configuration and capital cost for the Agri-Energy Facility Expansion.

Third Party Retrofit and Construction Activities

We have commenced a licensing strategy whereby a licensee would invest the capital for the Retrofit of its own ethanol plant or for a new greenfield build out of an isobutanol-producing plant. In return, we, as the licensor, would expect to receive an up-front license fee and ongoing royalty payments from the project, as well as other potential revenue streams such as yeast sales. This licensing strategy is expected to take some time to develop. The ability to license a technology is generally related to the commercial track record of the underlying technology itself. In addition, revenues from licensing our isobutanol and/or hydrocarbon technologies are expected to be directly linked to the build out of specific projects, which may take multiple years to construct.

In January 2016, we entered into a license agreement and joint development agreement with Porta Hnos. S.A. ("Porta") to construct multiple isobutanol plants in Argentina using corn as a feedstock, the first of which is expected to be wholly owned by Porta. The plant is expected to have a production capacity of up to five million gallons of isobutanol per year. Once the plant is operational, we expect to generate revenues from this licensing arrangement, through royalties, sales and marketing fees, and other revenue streams such as yeast sales. The agreements also contemplate Porta constructing at least three additional isobutanol plants for certain of their existing ethanol plant customers. For these projects, we would be the direct licensor of our technology and the marketer for any isobutanol produced, and would expect to receive all royalties and sales and marketing fees generated from these projects. Porta would provide the engineering, procurement and construction ("EPC") services for the projects. The production capacity of these additional plants is still to be determined. Porta is a leading supplier of EPC services to the ethanol industry in South America. As a result, we believe that our alliance with Porta will allow us to more quickly achieve commercial-scale production of isobutanol in Argentina and potentially elsewhere in South America.

In November 2015, we entered into a joint development agreement with Praj Industries Limited ("Praj"), which establishes a strategic relationship to: (i) jointly develop our technology for use in certain ethanol plants that utilize certain non-corn based feedstocks (the "Feedstock"); (ii) jointly develop an engineering package for greenfield isobutanol plants and Retrofitting ethanol plants to produce renewable isobutanol from the Feedstock; and (iii) license our technology to build greenfield isobutanol plants and Retrofit certain ethanol plants to produce isobutanol. We and Praj will jointly develop and optimize the parameters to produce isobutanol from the Feedstock. After the development work is completed, we will negotiate commercial license agreements with Praj and third party licensees. Praj has the exclusive right to supply equipment and process engineering services for (i) certain greenfield isobutanol plants covered by the joint development agreement and (ii) the addition of isobutanol capacity for certain ethanol plants that utilize the Feedstock and Praj technology. Praj agreed to meet certain milestones to maintain its exclusive rights. We will negotiate and license our technology for producing isobutanol directly with the ethanol plants covered by the joint development agreement and will also have the right to supply biocatalysts, nutrient packages, and support services to such plants. Praj will be the EPC services supplier for the ethanol plants covered by the joint development agreement and we will be the exclusive seller of all isobutanol produced by such plants. We believe that our alliance with Praj will allow us to more quickly achieve commercial-scale production of isobutanol derived from the Feedstock outside of the United States.

In addition, in October 2013, we signed a letter of intent with IGPC Ethanol Inc. to Retrofit its approximately 40 MGPY ethanol plant, and in November 2014, we signed a letter of intent with Highlands EnviroFuels, LLC which contemplates Highlands

EnviroFuels, LLC obtaining a license from us to produce renewable isobutanol at a plant that would be bolted on to the back-end of a sugar cane and sweet sorghum syrup mill and have a nameplate capacity of approximately 20 to 25 MGPY of isobutanol

In June 2011, we entered into an isobutanol joint venture agreement with Redfield Energy, LLC, a South Dakota limited liability company ("Redfield"), under which we have agreed to work with Redfield to Retrofit Redfield's approximately 50 MGPY ethanol production facility located near Redfield, South Dakota (the "Redfield Facility") for the commercial production of isobutanol. Under the terms of the joint venture agreement, we are responsible for all costs associated with the Retrofit of the Redfield Facility. We are entitled to a percentage of Redfield's profits, losses and distributions after commercial production of isobutanol has begun. As of December 31, 2016, we have incurred $0.4 million in planning-related costs, such as project engineering and permitting costs, for the future Retrofit of the Redfield Facility. Based on our preliminary engineering estimates, we will need to raise additional debt or equity capital to Retrofit the Redfield Facility, but are not obligated to do so under the Joint Venture Agreement. There are no assurances that we will move forward with the Retrofit of the Redfield Facility. We do not expect to advance this project during 2017.

Butamax Advanced Biofuels LLC

Cross License Agreement

On August 22, 2015, we entered into a Settlement Agreement and Mutual Release (the "Settlement Agreement") with Butamax Advanced Biofuels LLC ("Butamax"), E.I. du Pont de Nemours & Company ("DuPont") and BP Biofuels North America LLC ("BP" and, together with Butamax and DuPont, the "Butamax Parties"), that resolves the various disputes, lawsuits and other proceedings between one or more of the Butamax Parties and us, as previously disclosed and as specifically identified in the Settlement Agreement (the "Subject Litigation"), and creates a new business relationship pursuant to which Butamax and we have granted rights to each other under certain patents and patent applications in accordance with the terms of a Patent Cross-License Agreement (the "License Agreement") which was entered into by us and Butamax concurrently with the Settlement Agreement For additional information concerning the settlement agreement, please see our Annual Report on Form 10-K for the year-ended December 31, 2015 — Item 3 Legal Proceedings.

Pursuant to the terms of the License Agreement, each party receives a non-exclusive license under certain patents and patent applications owned or licensed (and sublicensable) by the other party for the production and use of biocatalysts in the manufacture of isobutanol using certain production process technology for the separation of isobutanol, and to manufacture and sell such isobutanol in any fields relating to the production or use of isobutanol and isobutanol derivatives, subject to the customer-facing field restrictions described below. Each party also receives a non-exclusive license to perform research and development on biocatalysts for the production, recovery and use of isobutanol.

Each party may produce and sell up to 30 million gallons of isobutanol per year in any field on a royalty-free basis. Butamax will be the primary customer-facing seller of isobutanol in the field of fuel blending (subject to certain exceptions, the "Direct Fuel Blending" field) and we will be the primary customer-facing seller of isobutanol in the field of jet fuel for use in aviation gas turbines (the "Jet" field, also subject to certain exceptions). As such, subject to each party's right to sell up to 30 million gallons of isobutanol per year in any field on a royalty-free basis, other than with Butamax's written consent, we will only sell isobutanol through Butamax in the Direct Fuel Blending field subject to a royalty based on the net sales price for each gallon of isobutanol sold or transferred by us, our affiliates or sublicensees within the Direct Fuel Blending field (whether through Butamax or not) and on commercially reasonable terms to be negotiated between the parties and Butamax will only sell isobutanol through us in the Jet field subject to a royalty based on the net sales price for each gallon of isobutanol sold or transferred by Butamax, its affiliates or sublicensees within the Jet field (whether through us or not) and on commercially reasonable terms to be negotiated between the parties; provided, that each party may sell up to fifteen million gallons of isobutanol in a given year directly to customers in the other party's customer-facing field on a royalty-free basis so long as the isobutanol volumes are within the permitted 30 million gallons of isobutanol sold or otherwise transferred per year in any field described above and, in certain instances, each party may then sell up to the total permitted 30 million gallons per year in the other party's customer-facing field on a royalty-free basis. In addition, in order to maintain its status as the primary customer-facing seller in these specific fields, each party must meet certain milestones within the first five years of the License Agreement. If such milestones are not met as determined by an arbitration panel, then a party will have the right to sell directly to customers in the other party's customer-facing field subject to the payment of certain royalties to the other party on such sales.

In addition to the royalties discussed above for sales of isobutanol in the Direct Fuel Blending field, and subject to our right to sell up to 30 million gallons of isobutanol per year in any field on a royalty-free basis, we will pay to Butamax a royalty per gallon of isobutanol sold or transferred by us, our affiliates or sublicensees within the field of isobutylene (a derivative of isobutanol) applications (other than isobutylene for paraxylene, isooctane, Jet, diesel and oligomerized isobutylene applications). Likewise, in addition to the royalties discussed above for sales of isobutanol in the Jet field, and subject to Butamax's right to sell up to 30 million gallons of isobutanol per year in any field on a royalty-free basis, Butamax will pay to us a royalty per gallon of isobutanol sold or transferred by Butamax, its affiliates or sublicensees within the fields of marine gasoline, retail packaged fuels and paraxylene (except

for gasoline blending that results in use in marine or other fuel applications). The royalties described above will be due only once for any volume of isobutanol sold or transferred under the License Agreement, and such royalties accrue when such volume of isobutanol is distributed for end use in the particular royalty-bearing field. All sales of isobutanol in other fields will be royalty-free, subject to the potential technology fee described below.

In the event that we, our affiliates or sublicensees choose to employ a certain solids separation technology for the production of isobutanol at one of their respective plants ("Solids Separation Technology"), we are granted an option to license such technology from Butamax on a non-exclusive basis subject to the payment of a one-time technology license fee based on the rated isobutanol capacity for each such plant (subject to additional fees upon expansion of such capacity). We also receive the option to obtain an engineering package from Butamax to implement the Solids Separation Technology on commercially reasonable terms to be negotiated between the parties and subject to the technology fee described above and an additional technology licensing fee for use of the Solids Separation Technology applicable to ethanol capacity as provided in such engineering package from Butamax (which capacity is not duplicative of the rated isobutanol capacity referenced above) in instances where Butamax provides an engineering package for use at a particular plant that will run isobutanol and ethanol production side-by-side using the licensed Solids Separation Technology at such plant.

The License Agreement encompasses both parties' patents for producing isobutanol, including biocatalysts and separation technologies, as well as for producing hydrocarbon products derived from isobutanol, including certain improvements and new patent applications filed within seven years of the date of the License Agreement. While the parties have cross-licensed their patents for making and using isobutanol, the parties will not share their own proprietary biocatalysts with each other. The parties may use third parties to manufacture biocatalysts on their behalf and may license their respective technology packages for the production of isobutanol to third parties, subject to certain restrictions. A third party licensee would be granted a sub-license, and would be subject to terms and conditions that are consistent with those under the License Agreement.

Under the License Agreement, the parties also agreed to certain limitations on the making or participating in a challenge of the other party's patents that are at issue in the Subject Litigation. The parties have also made certain representations, warranties and covenants to each other including, without limitation, with respect to obtaining certain consents, indebtedness, rights in the licensed patents, and relationships with certain other ethanol plant process technology providers.

The License Agreement will continue in effect until the expiration of the licensed patents, unless earlier terminated by a party as provided in the License Agreement. The parties also have certain termination rights with respect to the term of the license granted to the other party under the License Agreement upon the occurrence of, among other things, a material uncured breach by the other party. In the event that a party's license is terminated under the License Agreement, such party's sublicense agreements may be assigned to the other party, subject to certain restrictions.

The parties may not assign the License Agreement or any right or obligation thereunder without the prior written consent of the other party. However, the parties may assign the License Agreement to an affiliate or a person that acquires all of the business or assets of such party, subject to certain restrictions.

Isobutanol Direct Use Markets

Without modification, isobutanol has applications in the specialty chemical and gasoline blendstock markets. Since our potential customers in these markets would not be required to develop any additional infrastructure to use our isobutanol, we believe that selling into these markets will result in a relatively low risk profile and produce attractive margins.

Gasoline Blendstocks

- Isobutanol has direct applications as a gasoline blendstock. Fuel-grade isobutanol may be used as a high energy content, low Reid Vapor Pressure ("RVP"), gasoline blendstock and oxygenate. Based on isobutanol's low water solubility, in contrast with ethanol, we believe that isobutanol will be compatible with existing refinery infrastructure, allowing for blending at the refinery rather than blending at the terminal.
- Further, based on isobutanol's high energy content and low water solubility, as well as testing completed by the National Marine Manufacturers Association, the Outdoor Power Equipment Institute and Briggs & Stratton, we believe that isobutanol has direct applications as a blendstock in high value specialty fuels markets serving marine, off-road vehicles, small engine and sports vehicle markets.
- We estimate the total addressable worldwide market for isobutanol as a gasoline blendstock to be approximately 43 BGPY.

Specialty Chemicals

- Isobutanol has direct applications as a specialty chemical. High-purity and chemical-grade isobutanol can be used as a solvent and chemical intermediate. We plan to produce high-purity and chemical-grade isobutanol that can be used in the existing butanol markets as a cost-effective, environmentally sensitive alternative to petroleum-based products.
- We believe that our production route will be cost-efficient and will allow for significant expansion of the historical isobutanol markets within existing butanol markets through displacing n-butanol, a related compound to isobutanol that is currently sold into butanol markets.
- We estimate the total addressable worldwide market for isobutanol as a specialty chemical to be approximately 1.2 BGPY.

Butene and Hydrocarbon Markets Derived from Isobutanol

Beyond direct use as a specialty chemical and gasoline blendstock, isobutanol can be dehydrated to produce butenes which can then be converted into other products such as para-xylene, jet fuel and many other hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand. The conversion of isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets.

Jet Fuel

- We have demonstrated the ability to convert our isobutanol into a renewable jet fuel blendstock, or an alcohol to jet fuel ("ATJ"), at the demonstration plant in Silsbee, TX. In April 2016, ASTM International completed its process of approving a revision of ASTM D7566 (Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons) to include alcohol to jet synthetic paraffinic kerosene derived from renewable isobutanol. This allows our renewable jet fuel to be used as a blending component in standard Jet A-1 for commercial airline use in the United States and around the globe.
- We have delivered ATJ to Alaska Airlines, which successfully flew multiple commercial flights using our fuel in 2016, including what we believed was the first commercial flight using a cellulosic jet fuel derived from wood waste. In 2016, we also signed a non-binding heads of agreement with Lufthansa, which contemplates Lufthansa purchasing up to 8 million gallons per year of our ATJ over the 5 year life of an off-take agreement.
- We have successfully delivered to the U.S. Air Force, the U.S. Army and the U.S. Navy a combined total of approximately 90,000 gallons of our ATJ. Military and commercial airlines are currently looking to form strategic alliances with biofuels companies to meet their renewable fuel needs.
- We estimate the global market for jet fuel to be approximately 89 BGPY.

Other Hydrocarbon Fuels

- Gasoline, isooctane, isooctene, diesel fuel and bunker fuel may also be produced from our isobutanol. We have demonstrated the conversion of isobutanol to isooctane, isooctene and renewable gasoline. Renewable hydrocarbons such as isooctane, isooctene and renewable gasoline can directly replace petroleum-based hydrocarbons without any compromise of performance. The use of these renewable hydrocarbons enables companies to meet regulatory requirements for renewable content in fuels while satisfying the performance requirements of their customers. We have also converted isobutanol to kerosene with properties that we expect may be fit for diesel blending applications.

Para-xylene ("PX") and Polyethylene Terephthalate ("PET")

- Isobutanol can be used to produce PX, polyester and their derivatives, which are used in the beverage, food packaging, textile and fibers markets. PX is a key raw material in PET production.
- We estimate the global market for PET to be approximately 50 million metric tons per year of which approximately 30% is used for plastic bottles and containers. We have demonstrated the conversion of our isobutanol into renewable PX at the demonstration plant in Silsbee, TX. This demonstration plant produced renewable PX from October 2013 through March 2014, and, in May 2014, we shipped renewable PX to Toray Industries, Inc. ("Toray Industries") under the terms of a supply agreement.

Butenes

- Traditionally butenes have been produced as co-products from the process of cracking naphtha in the production of ethylene. Historically, lower natural gas prices and reported reductions in the use of naphtha as the feedstock for the production of

ethylene have resulted in a projected reduction in the volume of available butenes**.** This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of butenes.

- Isobutanol can be sold to isobutylene and n-butene (butenes) chemicals users for conversion into lubricants, methyl methacrylate and rubber applications.

Our Production Technology Platform

We have used tools from synthetic biology, biotechnology and process engineering to develop a proprietary fermentation and separation process to cost effectively produce isobutanol from renewable feedstocks. GIFT® is designed to allow for relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks, while maintaining the flexibility to revert to the production of ethanol or the simultaneous production of isobutanol and ethanol. GIFT® isobutanol production is very similar to existing ethanol production, except that we replace the ethanol producing biocatalyst with our isobutanol producing biocatalyst and we incorporate well-known equipment into the production process to separate and collect the isobutanol during the fermentation process. We believe that reusing large parts of the ethanol plant without modification is beneficial because the unchanged parts will stay in place and continue to operate after the Retrofit as they did when ethanol was produced. This means that the existing operating staff can continue to manage the production of isobutanol because they will already have experience with the base equipment. We believe this continuity will reduce the risks associated with the production startup following the Retrofit as most of the process is unchanged and the existing operating staff is available to monitor and manage the production process. In addition, we believe that our GIFT® design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions.

We intend to process the spent grain mash isobutanol fermentation process to produce isobutanol distiller's grains ("iDGs™"), relying on established processes in the current ethanol industry. We market our iDGs™ to the dairy, beef, swine and poultry industries as a high-protein, high-energy animal feed. To support these efforts, in December 2011 we entered into an exclusive off-take and marketing agreement with Land O'Lakes Purina Feed for the sale of iDGs™ produced at the Agri-Energy Facility. We believe that our sales of our iDGs™ will allow us and our partners to offset a significant portion of our grain feedstock costs, in the same manner as is practiced by the corn-based ethanol industry today through the sale of dry distiller's grains.

Biocatalyst Overview

Our biocatalysts are microorganisms that have been designed to metabolize sugars to produce isobutanol. Our technology team developed these proprietary biocatalysts to efficiently convert fermentable sugars of all types into isobutanol by engineering isobutanol pathways into the biocatalysts. We designed our biocatalysts to equal or exceed the performance of the yeast currently used in commercial ethanol production in yield (percentage of the theoretical maximum percentage of isobutanol that can be made from a given amount of feedstock) and rate (how fast the sugar fed to the fermentation is converted to isobutanol). We initially achieved our target fermentation performance goals with our research biocatalyst at our GIFT® mini-plant and then replicated this performance in a retrofitted one MGPY ethanol demonstration facility located at ICM's St. Joseph, Missouri site. We select biocatalysts for their projected performance in the GIFT® process, targeting lower cost isobutanol production. We continue to seek to improve the performance parameters of our biocatalyst with a goal of reducing projected capital and operating costs, increasing operating reliability and increasing the volume of isobutanol production.

Continuous improvement of biocatalyst performance is achieved using a variety of synthetic biology and conventional biotechnology tools to minimize the production of unwanted by-products to improve isobutanol yield and rate, thereby reducing capital and operating costs. With our biocatalysts, we have demonstrated that we can produce isobutanol at commercial scale with rates and yields which we believe validate our biotechnology pathways and efficiencies. Our commercial biocatalyst is designed to produce isobutanol from common commercial fermentation ethanol feedstocks, including grains (e.g., corn, wheat, sorghum and barley), sugar cane, and molasses. This feedstock flexibility supports our initial deployment in the U.S. and is designed to enable our future expansion into international markets for production of isobutanol.

Although development work continues, we have shown at laboratory scale and at our one MGPY demonstration facility located at ICM's St. Joseph, Missouri facility that we can convert hydrolyzed wood feedstocks into isobutanol. We are further improving biocatalysts to efficiently produce isobutanol from cellulosic feedstocks, including crops that are specifically cultivated to be converted into fuels (e.g., switchgrass), forest residues (e.g., waste wood, pulp and sustainable wood), agricultural residues (e.g., corn stalks, leaves, straw and grasses) and municipal green waste (e.g., grass clippings and yard waste). We carefully select our biocatalyst platforms based on their tolerance to isobutanol and other conditions present during an industrial fermentation process, as well as their known utility in large-scale commercial production processes.

Feedstocks

We have designed our biocatalyst platform to be capable of producing isobutanol from any fuel ethanol feedstock currently in commercial use, which we believe, in conjunction with our proprietary isobutanol separation unit, will permit us to Retrofit any existing fuel ethanol facility. We have demonstrated that our biocatalysts are capable of converting the types of sugars in grains and sugar cane to isobutanol at our commercial targets for fermentation time and yield and we believe that they will have the ability to convert these sugars into isobutanol at a commercial scale. The vast majority of fuel ethanol currently produced in the U.S. is produced from corn feedstock, which is abundant according to data from the U.S. Department of Agriculture and the Renewable Fuels Association. Although development work continues to be done, we have shown at laboratory scale and at our one MGPY demonstration facility located at ICM's St. Joseph, Missouri site that we can convert certain cellulosic sugars into isobutanol.

We expect that our feedstock flexibility will allow our technology to be deployed worldwide and will enable us to offer our customers protection from the raw material cost volatility historically associated with petroleum-based products.

In June 2015, Agri-Energy, our wholly-owned subsidiary, entered into a Price Risk Management, Origination and Merchandising Agreement (the "Origination Agreement") with FCStone Merchant Services, LLC ("FCStone") and a Grain Bin Lease Agreement with FCStone (the "Lease Agreement"). Pursuant to the Origination Agreement, FCStone will originate and sell to Agri-Energy, and Agri-Energy will purchase from FCStone, the entire volume of corn grain used by our plant in Luverne, Minnesota. The initial term of the Origination Agreement will continue for a period of eighteen months and will automatically renew for additional terms of one year unless Agri-Energy gives notice of non-renewal to FCStone. FCStone will receive an origination fee for purchasing and supplying Agri-Energy with all of the corn used by Agri-Energy's plant in Luverne, Minnesota. As security for the payment and performance of all indebtedness, liabilities and obligations of Agri-Energy to FCStone, Agri-Energy granted to FCStone a security interest in the corn grain stored in grain storage bins owned and operated by Agri-Energy ("Storage Bins") and leased to FCStone pursuant to the Lease Agreement. Pursuant to the Lease Agreement, FCStone will lease Storage Bins from Agri-Energy to store the corn grain prior to title of the corn grain transferring to Agri-Energy upon Agri-Energy's purchase of the corn grain. FCStone agrees to lease Storage Bins sufficient to store 700,000 bushels of corn grain and agrees to pay to Agri-Energy $175,000 per year. The term of the Lease Agreement will run concurrently with the Origination Agreement, and will be extended, terminated, or expire in accordance with the Origination Agreement. The Company also entered into an unsecured guaranty (the "Guaranty") in favor of FCStone whereby the Company guaranteed the obligations of Agri-Energy to FCStone under the Origination Agreement. The Guaranty shall terminate on the earlier to occur of (i) April 15, 2020 or (ii) termination of the Origination Agreement.

GIFT® Improves Fermentation Performance

Our experiments show that the GIFT® fermentation and recovery system provides enhanced fermentation performance as well as efficient recovery of isobutanol and other alcohols. The GIFT® system enables continuous separation of isobutanol from the fermentation tanks while fermentation is in process. Isobutanol is removed from the fermentation broth using a low temperature distillation to continuously remove the isobutanol as it is formed without the biocatalyst being affected. Since biocatalysts have a low tolerance for high isobutanol concentrations in fermentation, the ability of our process to continuously remove isobutanol as it is produced allows our biocatalyst to continue processing sugar into isobutanol at a high rate without being suppressed by rising levels of isobutanol in the fermenter, reducing the time to complete the fermentation. Using our biocatalysts, we have demonstrated that GIFT® enables isobutanol fermentation times equal to, or less than, those achieved in the current conventional production of ethanol, which allows us to fit our technology into existing ethanol fermenters reducing capital expenditures. We have designed a proprietary engineering package to carry out our isobutanol fermentation and recovery process.

GIFT® requires limited change to existing ethanol production infrastructure. As with ethanol production, feedstock is ground, cooked, treated with enzymes and fermented. Just like ethanol production, after fermentation, a primary product (isobutanol) and a co-product (iDGs™) are recovered for sale. The main modifications of the GIFT® system are replacing the ethanol producing yeast with Gevo's proprietary isobutanol producing biocatalyst, and adding low temperature distillation equipment for continuous removal and separation of isobutanol.

Conversion of Isobutanol into Hydrocarbons

We have demonstrated conversion of our isobutanol into a wide variety of hydrocarbon products which are currently used to produce plastics, fibers, polyester, rubber and other polymers and hydrocarbon fuels. Hydrocarbon products consist entirely of hydrogen and carbon and are currently derived almost exclusively from petroleum, natural gas and coal. Importantly, isobutanol can be dehydrated to produce butenes, which are an intermediate product in the production of hydrocarbon products with many industrial uses. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical. Much of the technology necessary to convert isobutanol into butenes and subsequently into these hydrocarbon products is commonly known and practiced in the chemicals industry today. For example, the dehydration of ethanol to ethylene, which uses a similar process and technology to the dehydration of isobutanol, is practiced commercially today to serve the

ethylene market. The dehydration of isobutanol into butenes is not commercially practiced today because isobutanol produced from petroleum is not cost-competitive with other petrochemical processes for generation of butenes. We believe that our efficient fermentation technology for producing isobutanol will promote commercial isobutanol dehydration and provide us with the opportunity to access hydrocarbon markets. To assist in accessing these markets, we have developed a hydrocarbon processing demonstration plant ("Hydrocarbons Demo Plant") near Houston, Texas, in partnership with South Hampton Resources, Inc. ("South Hampton"). The Hydrocarbon Demo Plant can process approximately 6,000 to 7,000 gallons of our isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals.

Our ETO Technology

We have also developed new technologies using ethanol as a feedstock for the production of hydrocarbons, renewable hydrogen, and other chemical intermediates, which we describe as our ethanol-to-olefins ("ETO") technologies. The process produces tailored mixes of isobutylene, propylene, hydrogen and acetone, which are valuable as standalone molecules, or as feedstocks to produce other chemical products and longer chain alcohols. This technology has the potential to address additional markets in the chemicals and plastics fields, such as renewable polypropylene for automobiles and packaging and renewable hydrogen for use in chemical and fuel cell markets. At this time, this technology has only been operated at a laboratory scale, but if successfully scaled up to commercial level, this technology may provide the estimated 25BGPY global ethanol industry a broader set of end-product market and margin opportunities.

Underpinning the ETO technology is our development of proprietary mixed metal oxide catalysts that produce either polymer grade propylene, high purity isobutylene or acetone in high yields in a single processing step. One of the benefits of the technology is that we can use conventional fuel grade specification ethanol that can be sourced from a variety of feedstocks with no apparent adverse impact on end product yields. Water, which is co-fed with the ethanol, is able to be recycled resulting in a process which generates minimal waste. The ethanol and water mixture is vaporized and fed across a fixed catalyst bed resulting in a gaseous product mix consisting of the propylene, isobutylene or acetone, in addition to hydrogen and carbon dioxide, along with lesser amounts of methane and ethylene. Separation of gaseous products can be achieved via conventional process technologies and unit operations within the petroleum industry.

Competition

Our isobutanol is targeted for use in the following markets: direct use as a solvent and gasoline blendstock, use in the chemicals industry for producing rubber, plastics, fibers, polyester and other polymers and use in the production of hydrocarbon fuels. We face competitors in each market, some of which are limited to individual markets, and some of which will compete with us across all of our target markets. Many of our competitors have greater financial resources than we do.

Renewable isobutanol. We are a leader in the development of renewable isobutanol via fermentation of renewable plant biomass. While the competitive landscape in renewable isobutanol production is limited at this time, we are aware of other companies that are seeking to develop isobutanol production capabilities, including Butamax with whom we have entered into the License Agreement. See above—Butamax Advanced Biofuels LLC—Cross License Agreement.

Solvent markets. We also face competition from companies that are focused on the development of n-butanol, a related compound to isobutanol. These companies include Cathay Industrial Biotech Ltd., METabolic EXplorer S.A., Eastman Chemicals Company, and Green Biologics Ltd. We understand that these companies produce n-butanol from an acetone-butanol-ethanol ("ABE") fermentation process primarily for the small chemicals markets. ABE fermentation using a Clostridia biocatalyst has been used in industrial settings since 1919. As discussed in several academic papers analyzing the ABE process, such fermentation is handicapped in competitiveness by high energy costs due to low concentrations of butanol produced and significant volumes of water processed. It requires high capital and operating costs to support industrial scale production due to the low rates of the Clostridia fermentation, and results in a lower butanol yield because it produces ethanol and acetone as by-products. We believe our proprietary process has many significant advantages over the ABE process because of its limited requirements for new capital expenditures, its production output of only isobutanol as a primary product and its limited water usage in production. We believe these advantages will produce a lower cost isobutanol compared to n-butanol produced by ABE fermentation. N-butanol's lower octane rating compared to isobutanol gives it a lower value in the gasoline blendstock market, but n-butanol can compete directly in many solvent markets where n-butanol and isobutanol have similar performance characteristics.

Gasoline blendstocks. In the gasoline blendstock market isobutanol competes with non-renewable alkylate and renewable ethanol. We estimate the total potential global market for isobutanol as a gasoline blendstock to be approximately 40 BGPY. Alkylate is a premium value gasoline blendstock typically derived from petroleum. However, petroleum feeds for alkylate manufacture are pressured by continued increases in the use of natural gas to generate olefins for the production of alkylate, due to the low relative cost of natural gas compared to petroleum. Isobutanol has fuel properties similar to alkylate and, as such, we expect that isobutanol could be used as a substitute for some alkylate in fuel applications. Ethanol is renewable and has a high octane rating, and although it has a

high RVP, ethanol receives a one pound RVP waiver in a large portion of the U.S. gasoline market. Renewability is important in the U.S. because the Renewable Fuels Standard program mandates that a minimum volume of renewable blendstocks be used in gasoline each year. A high octane rating is important for engine performance and is a valuable characteristic because many inexpensive gasoline blendstocks have lower octane ratings. Low RVP is important because the U.S. Environmental Protection Agency ("EPA") sets maximum permissible RVP levels for gasoline. In markets where low RVP is important, isobutanol can enable refiners to meet fuel specifications at lower cost. Ethanol's vapor pressure waiver is valuable because it offsets much of the negative value of ethanol's high RVP. We believe that our isobutanol will be valued for its combination of low RVP, low water solubility, relatively high octane and renewability.

Many production and technology supply companies are working to develop ethanol production from cellulosic feedstocks, including Shell Oil Company, DuPont-Danisco Cellulosic Ethanol LLC, POET, LLC, ICM, Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Archer Daniels Midland Company, BlueFire Renewables, Inc., ZeaChem Inc., Iogen Corporation, Qteros, Inc., and many smaller startup companies. Successful commercialization by some or all of these companies will increase the supply of renewable gasoline blendstocks worldwide, potentially reducing the market size or margins available to isobutanol.

Plastics, fibers, polyester, rubber and other polymers. Isobutanol can be dehydrated to produce butenes, hydrocarbon intermediates currently used in the production of plastics, fibers, polyester, rubber and other polymers. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets. These markets include butyl rubber, lubricants and additives derived from butenes such as isobutylene, poly methyl methacrylate from isobutanol, propylene for polypropylene from isobutylene, polyesters made via PX from isobutylene and polystyrene made via styrene.

In these markets, we compete with the renewable isobutanol companies and renewable n-butanol producers described previously, and face similar competitive challenges. Our competitive position versus petroleum-derived plastics, fibers, rubber and other polymers varies, but we believe that the high volatility of petroleum prices, often tight supply markets for petroleum-based petrochemical feedstocks and the desire of many consumers for goods made from more renewable sources will enable us to compete effectively. However, petrochemical companies may develop alternative pathways to produce petrochemical-based hydrocarbon products that may be less expensive than our isobutanol or more readily available or developed in conjunction with major petrochemical, refiner or end user companies. These products may have economic or other advantages over the plastics, fibers, polyester, rubber and other polymers developed from our isobutanol. Further, some of these companies have access to significantly more resources than we do to develop products.

Additionally, Global Bioenergies, S.A. is pursuing the direct production of isobutylene from renewable carbohydrates. Through analysis of the fermentation pathway, we believe that the direct production of butenes such as isobutylene via fermentation will have higher capital and operating costs than production of butenes derived from our isobutanol.

Hydrocarbon fuels. Beyond direct use as a fuel additive, isobutanol can be converted into many hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand in the fuels markets. We will compete with the incumbent petroleum-based fuels industry, as well as biofuels companies. The incumbent petroleum-based fuels industry makes the vast majority of the world's gasoline, jet and diesel fuels and blendstocks. The petroleum-based fuels industry is mature, and includes a substantial base of infrastructure for the production and distribution of petroleum-derived products. However, the industry faces challenges from its dependence on petroleum. High and volatile oil prices will provide an opportunity for renewable producers relying on biobased feedstocks like corn, which in recent years have had lower price volatility than oil, to compete.

Biofuels companies will provide substantial competition in the gasoline market. These biofuels competitors are numerous and include both large established companies and numerous startups. Government tax incentives for renewable fuel producers and regulations such as the RFS2 help provide opportunities for renewable fuels producers to compete. In particular, in the gasoline and gasoline blendstock markets, Virent Energy Systems, Inc. ("Virent") offers a competitive process for making gasoline and gasoline blendstocks. However, we have the advantage of being able to target conversion of isobutanol into specific high-value molecules such as isooctane, which can be used to make gasoline blendstocks with a higher value than whole gasoline, which we do not believe Virent's process can match. In the jet fuel market, we may face competition from companies such as Synthetic Genomics, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation, which are pursuing production of jet fuel from algae-based technology. Renewable Energy Group, Inc. and others are also targeting production of jet fuels from vegetable oils and animal fats. Red Rock Biofuels LLC, Fulcrum BioEnergy, Inc. and others are planning to produce jet fuel from renewable biomass. In the diesel fuels market, competitors such as Amyris Biotechnologies, Inc. ("Amyris") provide alternative hydrocarbon diesel fuel. We believe our technology provides a higher yield on feedstock than the isoprenoid fermentation pathway developed by Amyris, which we believe will yield a production cost advantage.

Ethanol. We compete with numerous ethanol producers located throughout the U.S., many of which have much greater resources than we do, including Archer-Daniels-Midland Company, Green Plains, Inc., POET, LLC and Valero Energy Corporation. Competition for corn supply from other ethanol plants and other corn consumers will likely exist in all areas and regions in which our current and future plants will operate. We also face competition from foreign producers of ethanol and such competition may increase significantly in the future. Large international companies have developed, or are developing, increased foreign ethanol production capacities. Brazil is the world's second largest ethanol producing country. Brazil's ethanol production is sugarcane-based, as opposed to corn-based, and has historically been less expensive to produce.

Intellectual Property

Our success depends in large part on our proprietary products and technology for which we seek protection under patent, copyright, trademark and trade secret laws. Such protection is also maintained in part using confidential disclosure agreements. Protection of our technologies is important so that we may offer our customers and partners proprietary services and products unavailable from our competitors, and so that we may exclude our competitors from using technology that we have developed or exclusively licensed. If competitors in our industry have access to the same technology, our competitive position may be adversely affected. As of December 31, 2016, we exclusively licensed rights to approximately 92 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. These licensed patents and patent applications are owned by Cargill and exclusively licensed to us for use in certain fields. These licensed patents and patent applications cover both enabling technologies and products or methods of producing products. Our license to such patents and applications allows us to freely practice the licensed inventions, subject only to the terms of this license. Effective March 28, 2016, we terminated the License Agreement with Cargill Incorporated, dated February 19, 2009. We elected to terminate this agreement because we determined that we no longer needed the Cargill technology for our business. We do not expect the termination to have an adverse effect on our business.

We have submitted hundreds of patent applications in the U.S. and in various foreign jurisdictions. These patent applications are directed to our technologies and specific methods and products that support our business in the biofuel and bioindustrial markets. We continue to file new patent applications, for which terms extend up to 20 years from the filing date in the U.S.

As of December 31, 2016, we have been issued 26 U.S. patents and 18 international patents.

In addition to the patents and applications described above, we have a global cross-license to certain patents and applications relating to the production, recovery, and use of isobutanol that are owned or licensed by Butamax. The global cross-license allows us to freely practice the licensed inventions, subject to the terms of the cross-license. For information regarding this license, see above —Butamax Advanced Biofuels LLC—Cross License Agreement.

We intend to file and prosecute patent applications and maintain trade secrets, as is consistent with our business plan, in an ongoing effort to protect our intellectual property. It is possible that our licensors' current patents, or patents which we may later acquire or license, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents from our filed applications, and may not be able to obtain patents regarding other inventions we seek to protect. We also may not file patents in each country in which we plan to do business or actually conduct business. Under appropriate circumstances, we may sometimes permit certain intellectual property to lapse or go abandoned. Due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected and we may subsequently abandon them. It is also possible that we will develop products or technologies that will not be patentable or that the patents of others will limit or preclude our ability to do business. In addition, any patent issued to us may provide us with little or no competitive advantage, in which case we may abandon such patent or license it to another entity.

We have obtained registered trademarks for Gevo Integrated Fermentation Technology®, GIFT®, and Gevo® in the U.S. These registered and pending U.S. trademarks are also registered or pending in certain foreign countries.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to or compete with ours. Patent, trademark and trade secret laws afford only limited protection for our technology platform and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the U.S. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate using aspects of our intellectual property or products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable. In addition, if any of our products or technologies is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement, invalidity, misappropriation or other allegations.

Any such litigation could result in substantial costs and diversion of our resources. Any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to make, use or sell the products or technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology.

Customers, Partnerships and Collaborations

We commenced a limited commercial scale campaign for the production of isobutanol in 2014 at our Agri-Energy Facility to demonstrate commercial scale capacity and sell the resulting product. We expect initial commercial production to be directed to serve the high-purity and chemical-grade markets, to provide introductory volumes to the specialty fuel blendstock markets in the U.S. and to be further processed at a demonstration plant near Houston, Texas, to fulfill contracts for various hydrocarbons applications such as alcohol-to-jet fuel ("ATJ") and PX. In 2014, we also began producing and selling isobutanol distiller's grains or iDGs™, as an animal feed co-product, in a similar manner as distiller's grains are sold in the ethanol industry today.

As of December 31, 2016, we had entered into the following key arrangements:

- ***Mansfield Oil Company of Gainesville, Inc.*** In August 2011, we entered into a commercial off-take agreement with Mansfield Oil Company of Gainesville, Inc. ("Mansfield") to distribute isobutanol-based fuel into the petroleum market. Mansfield markets and distributes fuel to thousands of commercial customers across the U.S. and has over 900 supply points across the U.S. The agreement allows Mansfield to blend our isobutanol for its own use and to be a distributor of our isobutanol for a term of five years. We also entered into a three-year supply services agreement, with automatic one-year renewals thereafter, with C&N, a Mansfield subsidiary ("C&N"), which will provide supply chain services including logistics management, customer service support, invoicing and billing services. Substantially all ethanol sold by Agri-Energy since its acquisition in September 2010 was sold to C&N pursuant to a separate ethanol purchase and marketing agreement.
- ***Land O'Lakes Purina Feed LLC.*** In December 2011, we entered into a commercial off-take and marketing agreement with Land O'Lakes Purina Feed LLC ("Land O'Lakes Purina Feed") for the sale of iDGs™ produced by the Agri-Energy Facility. Land O' Lakes Purina Feed provides farmers and ranchers with an extensive line of agricultural supplies (feed, seed, and crop protection products) and services. Pursuant to the agreement, Land O'Lakes Purina Feed will be the exclusive marketer of our iDGs™ and modified wet distiller's grains for the animal feed market. The agreement has an initial three-year term following the first commercial sales of iDGs™ with automatic one-year renewals thereafter unless terminated by one of the parties. Further, we plan to work with Land O'Lakes Purina Feed to explore opportunities to upgrade the iDGs™ for special value-added applications in feed markets. Land O' Lakes Purina Feed also provides marketing services for the sale of our ethanol distiller grains.
- ***Deutsche Lufthansa AG.,*** In September 2016, we announced that we had entered into a heads of agreement with Deutsche Lufthansa AG ("Lufthansa") to supply Gevo's ATJ from its first commercial hydrocarbons facility, intended to be built in Luverne, Minnesota. The terms of the agreement contemplate Lufthansa purchasing up to 8 million gallons per year of ATJ or up to 40 million gallons over the 5 year life of the proposed off-take agreement. The heads of agreement establishes a selling price that is expected to allow for an appropriate level of return on the capital required to build-out our first commercial scale hydrocarbons facility. The heads of agreement is non-binding and is subject to completion of a binding off-take agreement and other definitive documentation between Gevo and Lufthansa.
- ***Alaska Airlines.*** In May 2015, we entered into a strategic alliance agreement with Alaska Airlines. Pursuant to the terms of this agreement, Alaska Airlines agreed to purchase an initial quantity of our ATJ when we secured a revision to ASTM D7566, which occurred in April 2016. In June 2016, the first two Alaska Airlines commercial flights using our renewable ATJ took place originating in Seattle and flying to San Francisco International Airport and Ronald Reagan Washington National Airport in November 2016. Alaska Airlines flew the first commercial flight using our cellulosic ATJ, originating in Seattle and flying to Ronald Reagan Washington National Airport. The cellulosic ATJ was derived sugars derived from wood waste, and was produced in conjunction with the Northwest Advanced Renewables Alliance ("NARA").
- ***Musket Corporation***. In June 2016, we entered into an agreement with Musket Corporation ("Musket") to supply isobutanol for blending with gasoline. Musket is a national fuel distributor under the umbrella of the Love's Family of Companies. The supply program has begun with railcar quantities of isobutanol (a railcar holds approximately 28-29 thousand gallons). As isobutanol production ramps at Gevo's production facility in Luverne, Minnesota, and isobutanol-blended gasoline becomes more established at retail outlets, Musket expects to expand its purchase quantities. Musket was initially targeting marine and off-road markets in Arizona, Nevada and Utah. In November 2016, we announced that we had entered the on-road automobile gasoline market in Houston in partnership with Musket. This marked the first time that our isobutanol had been specifically targeted towards on-road vehicles, a much larger market opportunity for isobutanol than specialty segments.
- ***BCD Chemie.*** In April 2015, we entered into a first purchase order to supply isooctene to BCD Chemie, a subsidiary of Brenntag AG, a leading chemical distributor based in Germany. BCD Chemie is targeting applications in Europe to replace petroleum-based hydrocarbons to enable companies to meet regulatory requirements for renewable content in fuels while

satisfying the performance requirements of their customers. We subsequently entered into additional purchase orders to supply isooctene to BCD Chemie into 2016. To date, the total value of the purchase orders to BCD Chemie is over $1 million.

- ***Total Additives & Special Fuels.*** In September 2014, we entered into an agreement with Total Additifs Et Carburants Speciaux SAS (”Total ACS”) to supply isooctane for formulation into Formula 1® racing fuel. Total ACS is a subsidiary of Total S.A., the French multinational integrated oil and gas company. The contract provided Total ACS with exclusivity for use of our isooctane for Formula 1® racing. The contract expired on December 31, 2015; however, we anticipate continuing to supply isooctane, and potentially other hydrocarbon fuels, to Total ACS in the future.

- ***Jet Fuel Supply Agreements with the Defense Logistics Agency (U.S. Air Force, U.S. Army and U.S. Navy).*** In September 2011, we were awarded a contract by the Defense Logistics Agency (the “DLA”), to supply ATJ to the U.S. Air Force. The DLA sources and provides nearly 100% of the consumable items the U.S. military needs to operate. Under the contract, we provided the U.S. Air Force with 11,000 gallons of ATJ which was used to support engine testing and a demonstration flight in an A-10 aircraft. The term of the agreement was through December 30, 2012. The demonstration flight was successfully completed in June 2012. In September 2012, we were awarded an additional contract for the procurement of up to 45,000 gallons of ATJ. In March 2013, we entered into a contract with the DLA to supply the U.S. Army with 3,650 gallons of biojet fuel and in May 2013 this initial order was increased by 12,500 gallons. In September 2013, we entered into a contract with the DLA to supply the U.S. Navy with 20,000 gallons of biojet fuel. All of the ATJ supplied under these contracts was produced from isobutanol at the Hydrocarbons Demo Plant.

- ***Clariant Corp***. In May 2016, we announced that we had entered into an agreement with Clariant Corp., one of the world’s leading specialty chemical companies, to develop catalysts to enable Gevo’s “ETO” technology. Gevo’s ETO technology, which uses ethanol as a feedstock, produces tailored mixes of propylene, isobutylene and hydrogen, which are valuable as standalone molecules, or as feedstocks to produce other products such as diesel fuel and commodity plastics, that would be drop-in replacements for their fossil-based equivalents

- ***Toray Industries.*** In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray. Working directly with Toray Industries, we employed prototypes of commercial operations from the petrochemical and refining industries to make PX from isobutanol. Toray Industries used our bio-para-xylene (“bio-PX”) and commercially available renewable mono ethylene glycol to produce fully renewable PET films and fibers. In June 2012, we entered into a definitive agreement with Toray Industries, as amended in October 2013, for the joint development of an integrated supply chain for the production of bio-PET. Pursuant to the terms of the agreement with Toray Industries, we received $1.0 million which we used for the design and construction of a demonstration plant. Toray Industries was obligated to purchase initial volumes of bio-PX produced at the demonstration plant. In May 2014, we successfully shipped these initial volumes of bio-PX.

- ***The Coca-Cola Company***. We have established a working relationship with Coca-Cola to create bio-PX from our isobutanol in an effort to accelerate the development of Coca-Cola’s second generation PlantBottle™ packaging made from 100% plant-based materials. In November 2011, we entered into a joint research, development, license and commercialization agreement with Coca-Cola. Pursuant to this agreement, we have agreed to conduct research and development activities, including engineering to produce bio-PX from isobutanol, with the ultimate goal of producing bio-PET for food-grade bottling. Our work is targeted to take the technology from laboratory-scale to commercial-scale and support Coca- Cola’s efforts to lead the beverage industry away from fossil-fuel based packaging by offering an alternative made completely from renewable raw materials. Pursuant to the terms of the agreement, Coca-Cola paid us a fixed fee for the research program during the first two years of the agreement. The research and development activities under the initial agreement were successfully completed and an amendment was entered into in March 2014 that extended the agreement through the end of 2014. We are in ongoing discussions with Coca-Cola to determine the next steps of the collaboration to scale-up the bio-PX technology.

- ***Northwest Advanced Renewables Alliance.*** We have provided NARA with technology to enable the commercial scale processing of cellulosic sugars from wood waste into valuable products. The cellulosic jet fuel made using our technologies was used in a 1,000-gallon renewable fuel commercial flight flown by Alaska Airlines in November 2016. Our isobutanol and ATJ technologies were both licensed by NARA as part of this project. NARA was a five-year project supported by the U.S. Department of Agriculture, National Institute of Food and Agriculture, and is comprised of 22 member organizations from industry, academia and government laboratories. Its mission was to facilitate development of biojet and bioproduct industries in the Pacific Northwest using forest residuals that would otherwise become waste products. The NARA project ended in 2016.

These agreements demonstrate the demand for isobutanol from the Agri-Energy Facility and Hydrocarbons Demo Plant. However, certain of the commitments that we have received are non-binding. There can be no assurance that we will be able to negotiate final terms with these or other companies in a timely manner, or at all, or attract customers based on our arrangements with the petrochemical companies and large brand owners discussed above.

In 2016, 2015, and 2014 C&N account for approximately 75%, 73% and 71% of our consolidated revenue, respectively. In the same years, Land O'Lakes Purina Feed LLC accounted for approximately 18%, 19% and 13% of our consolidated revenue, respectively. Given our production capacity compared to the overall size of the North American market and the demand for our products, we do not believe that a decline in a specific customer's purchases would have a material adverse long-term effect upon our financial results.

Research and Development

Our strategy depends on continued improvement of our technologies for the production of isobutanol, as well as next generation chemicals and biofuels based on our isobutanol technology. Accordingly, we annually devote significant funds to research and development. The following table shows our research and development costs by function (in thousands).

	Year Ended December 31,		
	2016	2015	2014
Biocatalyst development	$ 2,867	$ 3,435	$ 8,493
Process engineering and operation of pilot and demo plants	1,714	1,344	3,943
Chemistry and applications development	635	1,831	1,684
Total Research and Development Expense	$ 5,216	$ 6,610	$ 14,120

During 2016, 2015 and 2014, we recorded revenue from government grants and cooperative agreements in the amounts of $0.5, $1.2 million, and $0.8 million, respectively, which primarily related to research and development activities performed in our biocatalyst, chemistry, and applications development groups.

Our research and development activities are currently being performed primarily in our corporate headquarters located in Englewood, Colorado and the Hydrocarbons Demo Plant near Houston, Texas.

Government Regulation - Environmental Compliance Costs

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacture and marketing of second-generation biofuels. Our isobutanol and the next generation products isobutanol will be used to produce may require regulatory approval by governmental agencies prior to commercialization. In particular, biofuels are subject to rigorous testing and premarket approval requirements by the EPA's Office of Transportation and Air Quality, and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations also govern or impact the manufacturing, safety, storage and use of biofuels. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. Regulatory approval, if and when obtained for any of the next generation products isobutanol is used to produce, may be limited in scope, which may significantly limit the uses for which our isobutanol and these next generation products may be marketed.

When built at a dry-mill facility, our GIFT® fermentation process creates iDGs™, a potential animal feed component, as a co-product. We have undertaken a self-assessed Generally Regarded As Safe process via third party scientific review to support the sale of our iDGs™ as animal feed. While we believe we can rely on this review, as we update our biocatalysts to increase isobutanol production, for further customer assurance, we also intend to pursue approval upon a completed biocatalyst from the Center for Veterinary Medicine of the U.S. Food and Drug Administration (the "FDA"). Even if we receive such approval, the FDA's policies may change and additional government regulations may be enacted that could prevent, delay or require regulatory approval of our co-products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

Our process contains a genetically engineered organism which, when used in an industrial process, is considered a new chemical under the EPA's Toxic Substances Control Act program ("TSCA"). EPA's Biotechnology Program under TSCA requires the submission of certain information of the Office of Pollution Prevention and Toxic Substances. Due to the nature of our microorganism we can utilize the TSCA Biotechnology Program Tier I and Tier II exemption criteria at our Luverne, Minnesota manufacturing location. As we expand our business activities, we will pursue the EPA's Microbial Commercial Activity Notice process for future plants. We do not anticipate a material adverse effect on our business or financial condition as a result of our efforts to comply with these requirements. However, the TSCA new chemical submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

There are various third-party certification organizations, such as ASTM International and Underwriters' Laboratories, Inc. ("UL"), involved in certifying the transportation, dispensing and use of liquid fuel in the U.S. and internationally. In 2013, a specification for fuel grade isobutanol titled ASTM D7862 "Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel" was published. In April 2016, ASTM International completed its process of approving the revision of ASTM D7566 (Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons) to include alcohol to jet synthetic paraffinic kerosene (ATJ-SPK) derived from renewable isobutanol In addition, UL has published guidance on the use of isobutanol-gasoline blends in its UL87A fuel dispensers. Voluntary standards development organizations may change and additional requirements may be enacted that could prevent or delay marketing approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources. We do not anticipate a material adverse effect on our business or financial conditions as a result of our efforts to comply with these requirements, but we cannot predict the likelihood, nature or extent of adverse third-party requirements that might arise from future action, either in the U.S. or abroad.

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and the health and safety of our employees. These laws and regulations require us to obtain environmental permits and comply with numerous environmental restrictions as we construct and operate isobutanol assets. They may require expensive pollution control equipment or operation changes to limit actual or potential impacts to the environment. A violation of these laws, regulations or permit conditions can result in substantial fines, natural resource damage, criminal sanctions, permit revocations and facility shutdowns.

There is a risk of liability for the investigation and cleanup of environmental contamination at each of the properties that we own or operate and at off-site locations where we arrange for the disposal of hazardous substances. If these substances are or have been disposed of or released at sites that undergo investigation or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation and Liability Act or other environmental laws for all or part of the costs of investigation and remediation. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from the properties. Some of these matters may require us to expend significant amounts for investigation and cleanup or other costs. We are not aware of any material environmental liabilities relating to contamination at or from our facilities or at off-site locations where we have transported or arranged for the disposal of hazardous substances.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make significant additional expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments in environmental controls at our facilities which cannot be estimated at this time. Present and future environmental laws and regulations applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions could all require us to make substantial expenditures. For example, our air emissions are subject to the Clean Air Act, the Clean Air Act Amendments of 1990 and similar state and local laws and associated regulations. Under the Clean Air Act, the EPA has promulgated National Emissions Standards for Hazardous Air Pollutants ("NESHAP"), which could apply to facilities that we own or operate if the emissions of hazardous air pollutants exceed certain thresholds. If a facility we operate is authorized to emit hazardous air pollutants above the threshold level, then we might still be required to come into compliance with another NESHAP at some future time. New or expanded facilities might be required to comply with both standards upon startup if they exceed the hazardous air pollutant threshold. In addition to costs for achieving and maintaining compliance with these laws, more stringent standards may also limit our operating flexibility.

As a condition to granting the permits necessary for operating our facilities, regulators could make demands that increase our construction and operations costs, which might force us to obtain additional financing. For example, unanticipated water discharge limits could sharply increase construction costs for our projects. Permit conditions could also restrict or limit the extent of our operations. We cannot guarantee that we will be able to obtain or comply with the terms of all necessary permits to complete the Retrofit of an ethanol plant. Failure to obtain and comply with all applicable permits and licenses could halt our construction and could subject us to future claims.

Segments and Geographic Information

We have determined that we have two operating segments: (i) Gevo segment; and (ii) Gevo Development/Agri-Energy segment. We organize our business segments based on the nature of the products and services offered through each of our consolidated legal entities. Transactions between segments including revenue, loss from operations and total assets by segment are eliminated in consolidation. For additional financial information related to our segments, see Note 18 *Segments* in Item 8. Financial Statements and Supplemental Data, of this Report

Gevo Segment. Our Gevo segment is responsible for all research and development activities related to the future production of isobutanol, including the development of our proprietary biocatalysts, the production and sale of biojet fuel, our Retrofit process and

the next generation of chemicals and biofuels that will be based on our isobutanol technology. Our Gevo segment also develops, maintains and protects our intellectual property portfolio, develops future markets for our isobutanol and provides corporate oversight services.

Gevo Development/Agri-Energy Segment. Our Gevo Development/Agri-Energy segment is currently responsible for the operation of our Agri-Energy Facility and the production of ethanol, isobutanol and related products. Substantially all of the ethanol produced from the date of the acquisition of the Agri-Energy Facility through December 31, 2016 was sold through an ethanol marketing company. Sales of ethanol and related products from our Gevo Development/Agri-Energy segment comprised approximately 90% of our consolidated revenue for the fiscal year ended December 31, 2016.

The following table sets forth our revenue by reportable segment (in thousands).

	Year Ended December 31,		
	2016	**2015**	**2014**
Revenues:			
Gevo	$ 2,425	$ 2,911	$ 4,718
Gevo Development / Agri-Energy	24,788	27,226	23,548
Consolidated	$ 27,213	$ 30,137	$ 28,266

***Geographic Information*.** For both the Gevo and the Gevo Development/Agri-Energy segments, all revenue is earned and all assets are held in the U.S.

Employees

As of December 31, 2016, Gevo and its subsidiaries employed 74 employees, 31 of whom were employed by Gevo and were located in Englewood, Colorado. Of the Gevo employees, 19 were engaged in research and development activities and 12 were engaged in general, administrative and business development activities. As of December 31, 2016, our subsidiary Agri-Energy employed 43 employees, all of whom were located in Luverne, Minnesota, and involved in the operations of our production facility. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Corporate Information

We were incorporated in Delaware in June 2005 as a corporation under the name Methanotech, Inc. and filed an amendment to our certificate of incorporation changing our name to Gevo, Inc. on March 29, 2006. Our principal executive offices are located at 345 Inverness Drive South, Building C, Suite 310, Englewood, CO 80112, and our telephone number is (303) 858-8358.

Website Access to SEC Filings

We are subject to the reporting requirements under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Consequently, we are required to file reports and information with the SEC, including reports on the following forms: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. These reports and other information concerning us may be accessed through the SEC’s website at http://www.sec.gov and on our website at www.gevo.com. Such filings are placed on our website as soon as reasonably practical after they are filed with the SEC. Any information contained in, or that can be accessed through our website, is not incorporated by reference into, nor is it in any way part of, this Report.

Item 1A. Risk Factors

You should carefully consider these risk factors described below before you decide to invest in our securities. The risks described below are not the only ones facing us. Our business is also subject to the risks that affect many other companies, such as competition, technological obsolescence, labor relations, general economic conditions, geopolitical changes and international operations. Additional risks and uncertainties not presently known to us or that we currently believe are immaterial may also impair our business operations and our liquidity. The risks described below could cause our actual results to differ materially from those contained in the forward-looking statements we have made in this Report, the information incorporated herein by reference and those forward-looking statements we may make from time to time.

Risks Relating to our Business and Strategy

We have substantial indebtedness outstanding and may incur additional indebtedness in the future. Our indebtedness exposes us to risks that could adversely affect our business, financial condition and results of operations.

As of February 28, 2017, we had $16.5 million in outstanding 10% Convertible Senior Notes, due 2017, which were issued to WB Gevo, Ltd. ("Whitebox") in June 2014 (the "2017 Notes"), and $1.2 million in outstanding 7.5% Convertible Senior Notes due 2022, which were issued in July 2012 (the "2022 Notes" and, together with the 2017 Notes, the "Convertible Notes"). In addition, we and any current and future subsidiaries of ours may incur substantial additional debt in the future, subject to the specified limitations in our existing financing documents and the indentures governing the Convertible Notes. If new debt is added to our or any of our subsidiaries' debt levels, the risks described in this "Certain Risks Related to Owning Our Securities" section could intensify.

Our current and future indebtedness could have significant negative consequences for our business, results of operations and financial condition, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, thereby reducing the amount of our cash flow available for other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business; and
- placing us at a possible competitive disadvantage with less leveraged competitors and competitors that may have better access to capital resources.

We cannot assure you that we will continue to maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay principal, premium, if any, and interest on our indebtedness, or that our cash needs will not increase. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, or if we fail to comply with the various requirements of our existing indebtedness or any other indebtedness which we may incur in the future, we would be in default, which could permit the holders of our indebtedness, including the Convertible Notes, to accelerate the maturity of such indebtedness. Any default under such indebtedness could have a material adverse effect on our business, results of operations and financial condition.

In particular, our indebtedness with Whitebox is secured by liens on substantially all of our assets, including our intellectual property. If we are unable to satisfy our obligations under such instruments, Whitebox could foreclose on our assets, including our intellectual property. Any such foreclosure could force us to substantially curtail or cease our operations which could have a material adverse effect on our business, financial condition and results of operations.

There is substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain further financing.

Our audited financial statements for the year ended December 31, 2016, were prepared under the assumption that we would continue our operations as a going concern. Our independent registered public accounting firm for the year ended December 31, 2016 included a "going concern" emphasis of matter paragraph in its report on our financial statements as of, and for the year ended, December 31, 2016, indicating that the amount of working capital at December 31, 2016 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date our 2016 financial statements are issued without additional sources of cash, which raises substantial doubt about our ability to continue as a going concern. Uncertainty concerning our ability to continue as a going concern may hinder our ability to obtain future financing. Continued operations and our ability to continue as a going concern are dependent on our ability to obtain additional funding in the near future and thereafter, and there are no assurances that such funding will be available to us at all or will be available in sufficient amounts or on reasonable terms. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. Based on our current operating plan, existing working capital at December 31, 2016 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date our 2016 financial statements are issued unless we are able to restructure and extend our debt obligations and/or raise additional capital to fund operations. Without additional funds from private and/or public offerings of debt or equity securities, sales of assets, sales of our licenses of intellectual property or technologies, or other transactions, we will exhaust our resources and will be unable to continue operations. If we cannot continue as a viable entity, our stockholders would likely lose most or all of their investment in us.

We have a history of net losses, and we may not achieve or maintain profitability.

We have incurred net losses of $37.2 million, $36.2 million, and $41.1 million during the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, we had an accumulated deficit of $376.7 million. We expect to incur losses and negative cash flows from operating activities for the foreseeable future. We currently derive revenue primarily from the sale of isobutanol, ethanol and related products at the Agri-Energy Facility, although over certain periods of time, we may and have operated the plant for the sole production of ethanol and related products to maximize cash flows.

Additionally, we have generated limited revenue from the sale of products such as ATJ, isooctane and isooctene produced from isobutanol that has been used for commercial flights with Alaska Airlines, jet engine qualification and flight demonstration by the U.S. Air Force and other branches of the U.S. military, as well as specialty gasoline applications such as racing fuel. We have also generated revenue through grants and cooperative agreements. If we are unable to obtain new grants, cooperative agreements or product supply contracts, our revenues could be adversely affected.

Furthermore, we expect to spend significant amounts on the further development and commercial implementation of our technology. We also expect to spend significant amounts acquiring and deploying additional equipment to attain final product specifications that may be required by future customers, acquiring or otherwise gaining access to additional ethanol plants and Retrofitting them for isobutanol production, on marketing, general and administrative expenses associated with our planned growth, on management of operations as a public company, and on debt service obligations. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending ourselves against claims by others that we may be violating their intellectual property rights may be significant.

In particular, over time, costs related to defending the validity of our issued patents and challenging the validity of the patents of others at the U.S. Patent and Trademark Office (“USPTO”) may be significant. As a result, even if our revenues increase substantially, we expect that our expenses will exceed revenues for the foreseeable future. We do not expect to achieve profitability during the foreseeable future, and may never achieve it. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We will require substantial additional financing to achieve our goals, and a failure to obtain this capital when needed or on acceptable terms could force us to delay, limit, reduce or terminate our development and commercialization efforts.

Significant portions of our resources have been dedicated to research and development, as well as demonstrating the effectiveness of our technology through the Retrofit of the Agri-Energy Facility. We believe that we will continue to expend substantial resources for the foreseeable future on further developing our technologies, developing future markets for our isobutanol and accessing and Retrofitting facilities necessary for the production of isobutanol on a commercial scale. These expenditures may include costs associated with research and development, accessing existing ethanol plants, Retrofitting or otherwise modifying the plants to produce isobutanol, obtaining government and regulatory approvals, acquiring or constructing storage facilities and negotiating supply agreements for the isobutanol we produce. In addition, other unanticipated costs may arise. Because the costs of developing our technology at a commercial scale are highly uncertain, we cannot reasonably estimate the amounts necessary to successfully commercialize our production.

To date, we have funded our operations primarily through equity offerings, issuances of debt, borrowing under our secured debt financing arrangements and revenues earned primarily from the sale of ethanol. Based on our current plans and expectations, we will require additional funding to achieve our goals. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending against claims by others that we may be violating their intellectual property rights may be significant. Moreover, our plans and expectations may change as a result of factors currently unknown to us, and we may need additional funds sooner than planned and may seek to raise additional funds through public or private debt or equity financings in the near future. We may also choose to seek additional capital sooner than required due to favorable market conditions or strategic considerations.

Our future capital requirements will depend on many factors, including:

- the timing of, and costs involved in developing and optimizing our technologies for full-scale commercial production of isobutanol;
- the timing of, and costs involved in accessing existing ethanol plants;
- the timing of, and costs involved in Retrofitting the plants we access with our technologies;
- the costs involved in establishing enhanced yeast seed trains, including at the Agri-Energy Facility;

- the costs involved in acquiring and deploying additional equipment to attain final product specifications including at the Agri-Energy Facility, that may be required by future customers;
- the costs involved in increasing our isobutanol production capacity, including at the Agri-Energy Facility;
- the cost and timing to expand the Agri-Energy Facility into our first commercial hydrocarbons facility;
- the cost of operating, maintaining and increasing production capacity of the Retrofitted plants;
- our ability to negotiate agreements supplying suitable biomass to our plants, and the timing and terms of those agreements;
- the timing of, and the costs involved in developing adequate storage facilities for the isobutanol we produce;
- our ability to gain market acceptance for isobutanol as a specialty chemical, gasoline blendstock and as a raw material for the production of hydrocarbons;
- our ability to negotiate supply agreements for the isobutanol we produce, and the timing and terms of those agreements, including terms related to sales price;
- our ability to negotiate sales of our isobutanol for full-scale production of butenes and other industrially useful chemicals and fuels, and the timing and terms of those sales, including terms related to sales price;
- our ability to sell the iDGs™ left as a co-product of fermenting isobutanol from corn as animal feedstock;
- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the timing and terms of those arrangements; and
- the cost of preparing, filing, prosecuting, maintaining, defending and enforcing patent, trademark and other intellectual property claims, including litigation costs and the outcome of such litigation.

Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox. If needed funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate:

- our research and development activities;
- our plans to access and/or Retrofit existing ethanol facilities;
- our production of isobutanol at Retrofitted plants, including at the Agri-Energy Facility;
- any plans to further expand production of isobutanol or other products at the Agri-Energy Facility;
- our production of hydrocarbons at our demonstration plant located at the South Hampton facility near Houston, TX, or any other future facilities;
- our efforts to prepare, file, prosecute, maintain and enforce patent, trademark and other intellectual property rights and defend against claims by others that we may be violating their intellectual property rights; and/or
- our activities in developing storage capacity and negotiating supply agreements that may be necessary for the commercialization of our isobutanol production.

Our Retrofit of the Agri-Energy Facility is our first commercial Retrofit and, as a result, our full-scale commercial production of isobutanol at the Agri-Energy Facility could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In September 2010, we acquired ownership of the Agri-Energy Facility in Luverne, Minnesota. To date, we have successfully demonstrated fermentation operations at commercial scale combined with the use of our GIFT ® separation system using corn mash feedstock at the Agri-Energy Facility. We may incur additional costs in order to further optimize the production of isobutanol, or both isobutanol and ethanol simultaneously, at the Agri-Energy Facility. We may determine that it is necessary to incur additional costs to further optimize the Agri-Energy Facility or to increase production of isobutanol or other products at the Agri-Energy Facility, but the funds necessary may not be available when we need them, on terms that are acceptable to us or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox. If additional funding is not available to us, or not available on terms acceptable to us, our ability to optimize the isobutanol production technology currently in place at the Agri-Energy Facility and achieve full-scale commercial production at this facility may be limited. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

The Agri-Energy Facility is our first commercial isobutanol production facility, and, as such, we may be unable to produce planned quantities of isobutanol and any such production may be more costly than we anticipate.

Since commencing initial startup operations for the production of isobutanol at the Agri-Energy Facility in May 2012, we have encountered some production challenges, including contamination issues, which have resulted in lower than planned isobutanol production. While we have resumed production of isobutanol at the Agri-Energy Facility, this is our first commercial isobutanol production facility and we may encounter further production challenges, including, but not limited to, being unable to manage plant contamination, and we may add additional processing steps or incur additional capital expenditures to achieve our target customers' product specifications and/or to increase production levels at the facility. In addition, the Agri-Energy Facility was constructed in 1998. As an older production facility, the Agri-Energy Facility may be more susceptible to maintenance issues that result in production challenges than newer production facilities. Any such production challenges may delay our ramp up of production capacity, prevent us from producing significant quantities of isobutanol, significantly increase our cost to produce isobutanol, or cause us to switch to producing ethanol or produce both products simultaneously, which could have a material adverse effect on our business, financial condition and results of operations.

Some of our Retrofits, including the Retrofit of the Agri-Energy Facility, may include additional equipment that we believe will allow us to switch between ethanol and isobutanol production, or produce both products simultaneously, but we cannot guarantee that we will be successful in switching between isobutanol and ethanol production, or producing both products simultaneously, in a timely or efficient manner at these facilities.

In July 2014, we began more consistent co-production of isobutanol and ethanol at our Agri-Energy Facility with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. We believe that the capability to switch between ethanol and isobutanol production, or produce both products simultaneously (as evidenced by our Agri-Energy Facility) will, subject to regulatory factors and depending on market conditions, mitigate certain significant risks associated with startup operations for isobutanol production, but there can be no assurance that we will be able to revert to ethanol production, or produce both products simultaneously at future plants, or that it will make sense, based on the then-current economic conditions for the production of ethanol, to do so. Even if we are able to revert to ethanol production, or produce both products simultaneously at certain facilities, those facilities may produce ethanol less efficiently or in lower volumes than they did prior to the Retrofit and such ethanol production may not generate positive economic returns. If we are unable to produce isobutanol at the volumes, rates and costs that we expect and are unable to revert to ethanol production at full capacity, or produce both products simultaneously, we would be unable to match the facility's historical economic performance and our business, financial condition and results of operations would be materially adversely affected.

Fluctuations in the price of corn and other feedstocks may affect our cost structure.

Our approach to the biofuels and chemicals markets will be dependent on the price of corn and other feedstocks that will be used to produce ethanol and isobutanol. A decrease in the availability of plant feedstocks or an increase in the price may have a material adverse effect on our financial condition and operating results. At certain levels, prices may make these products uneconomical to use and produce, as we may be unable to pass the full amount of feedstock cost increases on to our customers.

The price and availability of corn and other plant feedstocks may be influenced by general economic, market and regulatory factors. These factors include weather conditions, farming decisions, government policies and subsidies with respect to agriculture and international trade, and global demand and supply. For example, corn prices may increase significantly in response to drought conditions in the Midwestern region of the U.S. and any resulting decrease in the supply of corn could lead to the restriction of corn supplies, which in turn could cause further increases in the price of corn. The significance and relative impact of these factors on the price of plant feedstocks is difficult to predict, especially without knowing what types of plant feedstock materials we may need to use.

Fluctuations in the price and availability of natural gas may harm our performance.

The ethanol facilities that we have Retrofitted or plan to Retrofit to produce isobutanol use significant amounts of natural gas to produce ethanol. After Retrofit with our GIFT ® technology, these facilities will continue to require natural gas to produce isobutanol and/or ethanol. Accordingly, our business is dependent upon natural gas supplied by third parties. The prices for and availability of natural gas are subject to volatile market conditions. These market conditions are affected by factors beyond our control, such as weather conditions, overall economic conditions and governmental regulations. Should the price of natural gas increase, our performance could suffer. Likewise, disruptions in the supply of natural gas could have a material impact on our business and results of operations.

Fluctuations in petroleum prices and customer demand patterns may reduce demand for biofuels and bio-based chemicals.

We anticipate marketing our biofuel as an alternative to petroleum-based fuels. Therefore, if the price of oil falls, any revenues that we generate from biofuel products could decline, and we may be unable to produce products that are a commercially viable alternative to petroleum-based fuels. Additionally, demand for liquid transportation fuels, including biofuels, may decrease due to economic conditions or otherwise. We will encounter similar risks in the chemicals industry, where declines in the price of oil may make petroleum-based hydrocarbons less expensive, which could reduce the competitiveness of our bio-based alternatives.

Changes in the prices of distiller's grains and iDGs™ could have a material adverse effect on our financial condition.

We sell distiller's grains as a co-product from the production of ethanol at the Agri-Energy Facility during any period in which the production of isobutanol is temporarily paused and our management decides that the Agri-Energy Facility will be temporarily reverted to ethanol production, or during periods in which we produce both isobutanol and ethanol simultaneously. We may also sell distiller's grains produced by other ethanol facilities that we acquire, enter into a joint venture or tolling arrangement with, or license to in the future. We also sell the iDGs™ that are produced as a co-product of our commercial isobutanol production. Distiller's grains and iDGs™ compete with other animal feed products, and decreases in the prices of these other products could decrease the demand for and price of distiller's grains and iDGs™. Additionally, we have produced limited quantities of commercial iDGs™ and, as such, there is a risk that our iDGs™ may not meet market requirements. If the price of distiller's grains and iDGs™ decreases or our iDGs™ do not meet market requirements, our revenue from the sale of distiller's grains and future revenue from the sale of iDGs™ could suffer, which could have a material adverse effect on our financial condition.

To the extent that we produce ethanol before commencing isobutanol production, or during periods in which we make the strategic decision to revert to ethanol production, or produce both products simultaneously, we will be vulnerable to fluctuations in the price of and cost to produce ethanol.

We believe that, like the Agri-Energy Facility, the other third-party ethanol production facilities we access can continue to produce ethanol during most of the Retrofit process. In certain cases, we may obtain income from this ethanol production. Further, we have designed our isobutanol production technology (including the Retrofit of the Agri-Energy Facility) to allow us to revert to ethanol production at certain facilities, or produce both products simultaneously, when the economic conditions for ethanol production make such production desirable. Our earnings from ethanol revenue will be dependent on the price of, demand for and cost to produce ethanol. Decreases in the price of ethanol, whether caused by decreases in gasoline prices, changes in regulations, seasonal fluctuations or otherwise, will reduce our revenues, while increases in the cost of production will reduce our margins. To the extent that ethanol production costs increase or price decreases, earnings from ethanol production could suffer, which could have a material adverse effect on our business.

In recent years, the spread between ethanol and corn prices has fluctuated widely. Fluctuations are likely to continue to occur. For example, unfavorable weather conditions led to a smaller than expected corn harvest across affected areas of the U.S. Midwest region in the fall of 2012. This, along with smaller corn carryover in 2010 and 2011 and higher export demand for corn led to higher corn prices during 2012 and the first half of 2013 and increased corn price volatility. The price of ethanol during that time did not keep pace with rising corn prices which resulted in lower and, in some instances negative, operating margins in the ethanol industry. As a result, during the fourth quarter of 2012, our management determined that the production of ethanol at the Agri-Energy Facility would not produce a positive margin versus maintaining the Agri-Energy Facility at idle. Likewise, the recent decline in oil prices has translated into lower gasoline prices in the U.S., which have resulted in lower ethanol prices and ethanol profit margins. It is unclear when or if ethanol prices may rebound, and consequently, when or if near-term ethanol margins will increase from current levels. Our inability to rely on ethanol production as an alternative revenue source due to rising corn prices or otherwise could have a material adverse effect on our business, financial condition and results of operations.

Sustained narrow commodity margins may cause us to operate at a loss or to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility, and we may or may not be able to recommence production when margins improve.

Our results from operations will be substantially dependent on commodity prices. Many of the risks associated with volatile commodity prices, including fluctuations in feedstock costs and natural gas costs, apply both to the production of ethanol and isobutanol. Sustained unfavorable commodity prices may cause our combined revenues from sales of ethanol, isobutanol and related co-products to decline below our marginal cost of production. As market conditions change, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility.

The decision to reduce or suspend production at a facility may create additional costs related to continued maintenance, termination of staff, certain unavoidable fixed costs, termination of customer contracts and increased costs to increase or recommence production in the future. These costs may make it difficult or impractical to increase or recommence production of ethanol and/or isobutanol at the Agri-Energy Facility even if margins improve. In addition, any reduction or suspension of the production of ethanol

and/or isobutanol at the Agri-Energy Facility may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

We may not be successful in the development of individual steps in, or an integrated process for, the production of commercial quantities of isobutanol from plant feedstocks in a timely or economic manner, or at all.

As of the date of this filing, we have produced only limited quantities of isobutanol at commercial scale and we may not be successful in increasing our production from these limited production levels. The production of isobutanol requires multiple integrated steps, including:

- obtaining the plant feedstocks;
- treatment with enzymes to produce fermentable sugars;
- fermentation by organisms to produce isobutanol from the fermentable sugars;
- distillation of the isobutanol to concentrate and separate it from other materials;
- purification of the isobutanol; and
- storage and distribution of the isobutanol.

Our future success depends on our ability to produce commercial quantities of isobutanol in a timely and economic manner. While we have produced isobutanol using our biocatalysts at the Agri-Energy Facility in commercial-scale fermenters, our biocatalysts have not yet produced isobutanol at fully optimized levels at a commercial facility. The risk of contamination and other problems rises as we increase the scale of our isobutanol production. If we are unable to successfully manage these risks, we may encounter difficulties in achieving our target isobutanol production yield, rate, concentration or purity at a commercial scale, which could delay or increase the costs involved in commercializing our isobutanol production. In addition, we have limited experience sourcing large quantities of feedstocks and in storing and/or distributing significant volumes of isobutanol. The technological and logistical challenges associated with each of the processes involved in production, sale and distribution of isobutanol are extraordinary, and we may not be able to resolve any difficulties that arise in a timely or cost effective manner, or at all. Even if we are successful in developing an economical process for converting first generation carbohydrate feedstocks such as corn and sugar cane into commercial quantities of isobutanol, we may not be able to adapt such process to other biomass raw materials, including cellulosic biomass.

Prior to commencement of the Agri-Energy Facility Retrofit, we had never built (through Retrofit or otherwise) or operated a commercial isobutanol facility. We believe that we understand the engineering and process characteristics necessary to successfully scale up to larger facilities, and we expect to incur additional capital expenditures to increase isobutanol production levels at the Agri-Energy Facility, but these assumptions may prove to be incorrect. Accordingly, we cannot be certain that we can consistently produce isobutanol in an economical manner in commercial quantities. If our costs to build large-scale commercial isobutanol facilities are significantly higher than we expect or if we fail to consistently produce isobutanol economically on a commercial scale or in commercial volumes, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We have entered into a licensing agreement with Porta Hnos S.A. ("Porta") to Retrofit their facility in Argentina, and the production of isobutanol at the Porta facility could be delayed and, as a result, any royalties or other revenues expected to be derived from the licensing agreement may be delayed.

In January 2016, we entered into a license agreement and joint development agreement with Porta to construct multiple isobutanol plants in Argentina using corn as a feedstock, the first of which is expected to be wholly owned by Porta (the "Porta Facility"). The plant is expected to have a production capacity of up to five million gallons of isobutanol per year. Once the plant is operational, Gevo expects to generate revenues from this licensing arrangement, through royalties, sales and marketing fees, and other revenue streams such as yeast sales. The agreements also contemplate Porta constructing at least three additional isobutanol plants for certain of their existing ethanol plant customers. For these projects, Gevo would be the direct licensor of its technology and the marketer for any isobutanol produced, and would expect to receive all royalties and sales and marketing fees generated from these projects. Porta would provide the engineering, procurement and construction ("EPC") services for the projects. The production capacity of these additional plants is still to be determined.

Although we will be able to apply our experience from the Retrofit of the Agri-Energy Facility, no two ethanol facilities are exactly alike, and each Retrofit or construction project will require individualized engineering and design work. Unexpected difficulties unique to the Porta Facility may cause delays in commencing production, and there is no guarantee that we will be successful in properly completing the project. Any such unexpected difficulties could delay or limit the revenues that we are able to

derive from the licensing arrangement with Porta. Moreover, there can be no assurances that the Retrofit of the Porta facility will ever be completed or Porta will construct other isobutanol plants as contemplated. If the Porta Facility project is not completed or if Porta does not construct additional isobutanol facilities, Gevo will not generate any revenue. In addition, if Porta experiences delays or is unsuccessful in completing the Porta Facility project, this may limit Gevo's ability to license its technology to others, which could reduce the scope of Gevo's business plan and have a material adverse effect on Gevo's results of operations. In addition, if we experience delays or are unsuccessful in completing the Porta Facility project, this may limit our ability to license our technology to others, which could reduce the scope of our business plan and have a material adverse effect on our results of operations.

Our development strategy relies on our relationships with partners such as Praj Industries Limited ("Praj") and Porta.

Praj is one of the leading suppliers of EPC services to the ethanol industry globally, having provided such services to approximately 350 ethanol plants across 65 countries. As a result, we believe that our alliance with Praj will allow us to more quickly achieve commercial-scale production of isobutanol derived from the Feedstock outside of the U.S. Porta is a leading supplier of EPC services to the ethanol industry in South America. As a result, we believe that our alliance with Porta will allow us to more quickly achieve commercial-scale production of isobutanol in Argentina and potentially elsewhere in South America. However, Praj and Porta may fail to fulfill their obligations to us under our agreements such as failing to meet milestones associated with our joint development agreement. If Praj and Porta fail to fulfill their obligations to us under our agreements, our ability to realize continued development and commercial benefits from our alliance could be affected and our business and prospects could be harmed.

In addition, we may be unable to secure other partners beyond Praj and Porta to assist us in developing commercial isobutanol projects globally. If we are unable to secure such additional partnerships, our business and prospects could be harmed.

We may not be able to successfully identify and acquire access to additional ethanol production facilities suitable for efficient Retrofitting, or acquire access to sufficient capacity to be commercially viable or meet customer demand.

Our strategy currently includes accessing and Retrofitting, either independently or with potential development partners or licensees, existing ethanol facilities for the production of large quantities of isobutanol for commercial distribution and sale. In addition to the Agri-Energy Facility, we have signed licensing agreements with Porta and Praj and acquired access to a 50 MGPY ethanol plant pursuant to our joint venture with Redfield. However, we may not find future development partners with whom we can implement this growth strategy, and we may not be able to identify facilities suitable for joint venture, acquisition, lease or license.

Even if we successfully identify a facility suitable for efficient Retrofitting, we may not be able to acquire access to such facility in a timely manner, if at all. The owners of the ethanol facility may reach an agreement with another party, refuse to consider a joint venture, acquisition, lease or license, or demand more or different consideration than we are willing to provide. In particular, if the profitability of ethanol production increases, plant owners may be less likely to consider modifying their production, and thus may be less willing to negotiate with us or agree to allow us to Retrofit their facilities for isobutanol production. We may also find that it is necessary to offer special terms, incentives and/or rebates to owners of ethanol facilities that allow us to access and Retrofit their facilities while our production technology is being proven on a commercial scale. Even if the owners of a facility are interested in reaching an agreement that grants us access to the plant, negotiations may take longer or cost more than we expect, and we may never achieve a final agreement. Further, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox, and we may not be able to raise capital on acceptable terms, or at all, to finance our joint venture, acquisition, participation or lease of facilities.

Even if we are able to access and Retrofit several facilities, we may fail to access enough capacity to be commercially viable or meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. Failure to acquire access to sufficient capacity in a timely manner and on favorable terms may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

Once we acquire access to ethanol facilities, we may be unable to successfully Retrofit them to produce isobutanol, or we may not be able to Retrofit them in a timely and cost-effective manner.

For each ethanol production facility to which we acquire access, we will be required to obtain numerous regulatory approvals and permits to Retrofit and operate the facility. In the U.S., these include such items as a modification to the air permit, fuel registration with the EPA, ethanol excise tax registration and others. These requirements may not be satisfied in a timely manner, or at all. Later-enacted federal and state governmental requirements may also substantially increase our costs or delay or prevent the completion of a Retrofit, which could have a material adverse effect on our business, financial condition and results of operations.

No two ethanol facilities are exactly alike, and each Retrofit will require individualized engineering and design work. There is no guarantee that we or any contractor we retain will be able to successfully design a commercially viable Retrofit, or properly complete the Retrofit once the engineering plans are completed. Prior to commencement of the Agri-Energy Facility Retrofit, we had never built, via Retrofit or otherwise, a full-scale commercial isobutanol facility. Despite our experience with the Retrofit of the Agri-Energy Facility, our estimates of the capital costs that we will need to incur to Retrofit a commercial-scale ethanol facility may prove to be inaccurate, and each Retrofit may cost materially more to engineer and build than we currently anticipate. For example, our estimates assume that each plant we Retrofit will be performing at full production capacity, and we may need to expend substantial sums to repair or modify underperforming facilities prior to Retrofit.

Furthermore, the Retrofit of acquired facilities will be subject to the risks inherent in the build-out of any manufacturing facility, including risks of delays and cost overruns as a result of factors that may be out of our control, such as delays in the delivery of equipment and subsystems or the failure of such equipment to perform as expected once delivered. In addition, we will depend on third-party relationships in expanding our isobutanol production capacity and such third parties may not fulfill their obligations to us under our arrangements with them. Delays, cost overruns or failures in the Retrofit process will slow our commercial production of isobutanol and harm our performance.

Though our Retrofit design for certain facilities will include the capability to switch between isobutanol and ethanol production, or produce both products simultaneously (as demonstrated by our Agri-Energy Facility), we may be unable to successfully revert to ethanol production, or produce both products simultaneously at certain facilities, or such facilities may produce ethanol less efficiently or in lower volumes than they did before the Retrofit. In addition, we may be unable to secure the necessary regulatory approvals and permits to switch between isobutanol and ethanol production, or produce both products simultaneously, in a timely manner, or at all. Thus, if we fail to achieve commercial levels of isobutanol production at a Retrofitted facility, we may be unable to rely on ethanol production as an alternative or additional revenue source, which could have a material adverse effect on our prospects.

Our facilities and process may fail to produce isobutanol at the volumes, rates and costs we expect.

Some or all of the facilities we choose to Retrofit may be in locations distant from corn or other feedstock sources, which could increase our feedstock costs or prevent us from acquiring sufficient feedstock volumes for commercial production. General market conditions might also cause increases in feedstock prices, which could likewise increase our production costs.

Even if we secure access to sufficient volumes of feedstock, the facilities we Retrofit for isobutanol production may fail to perform as expected. The equipment and subsystems installed during the Retrofit may never operate as planned. Our systems may prove incompatible with the original facility, or require additional modification after installation. Our biocatalyst may perform less efficiently than it did in testing, if at all. Contamination of plant equipment may require us to replace our biocatalyst more often than expected, require unplanned installation or replacement of equipment, or cause our fermentation process to yield undesired or harmful by-products. Likewise, our feedstock may contain contaminants like wild yeast, which naturally ferments feedstock into ethanol. The presence of contaminants, such as wild yeast, in our feedstock could reduce the purity of the isobutanol that we produce and require us to invest in more costly isobutanol separation processes or equipment. Unexpected problems may force us to cease or delay production and the time and costs involved with such delays may prove prohibitive. Any or all of these risks could prevent us from achieving the production throughput and yields necessary to achieve our target annualized production run rates and/or to meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. Failure to achieve these rates or meet these minimum requirements, or achieving them only after significant additional expenditures, could substantially harm our commercial performance.

We may be unable to produce isobutanol, ATJ or other products in accordance with customer specifications.

Even if we produce isobutanol, ATL or other products at our targeted rates, we may be unable to produce these products to meet customer specifications, including those defined in ASTM D7862 “Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel’ or ASTM D7566 “Standard Specifications for Aviation Turbine Fuel Containing Synthesized Hydrocarbons”. We may need to add additional processing steps or incur capital expenditures in order to meet customer specifications which could add significant costs to our production process. For example, at the Agri-Energy Facility we intend to acquire and install a product purification column, which we believe will allow us to achieve our target customers’ product specifications without continuing to rely on third-party contract tolling providers. If we fail to meet specific product or volume specifications contained in a supply agreement, the customer may have the right to seek an alternate supply of isobutanol and/or terminate the agreement completely, and we could be required to pay shortfall fees or otherwise be subject to damages. A failure to successfully meet the specifications of our potential customers could decrease demand, and significantly hinder market adoption of our products.

We lack significant experience operating commercial-scale ethanol and isobutanol facilities, and may encounter substantial difficulties operating commercial plants or expanding our business.

We have very limited experience operating commercial-scale ethanol and isobutanol facilities. Accordingly, we may encounter significant difficulties operating at a commercial scale. We believe that our future facilities will, like the Agri-Energy Facility, be able to continue producing ethanol during much of the Retrofit process. We will need to successfully administer and manage this production. Although Porta, the employees of Agri-Energy and Redfield are experienced in the operation of ethanol facilities, and our future development partners or the entities that we acquire may likewise have such experience, we may be unable to manage ethanol-producing operations, especially given the possible complications associated with a simultaneous Retrofit. Once we complete a commercial Retrofit, operational difficulties may increase, because neither we nor anyone else has significant experience operating a pure isobutanol fermentation facility at a commercial scale. The skills and knowledge gained in operating commercial ethanol facilities or small-scale isobutanol plants may prove insufficient for successful operation of a large-scale isobutanol facility, and we may be required to expend significant time and money to develop our capabilities in isobutanol facility operation. We may also need to hire new employees or contract with third parties to help manage our operations, and our performance will suffer if we are unable to hire qualified parties or if they perform poorly.

We may face additional operational difficulties as we further expand our production capacity. Integrating new facilities with our existing operations may prove difficult. Rapid growth, resulting from our operation of, or other involvement with, isobutanol facilities or otherwise, may impose a significant burden on our administrative and operational resources. To effectively manage our growth and execute our expansion plans, we will need to expand our administrative and operational resources substantially and attract, train, manage and retain qualified management, technicians and other personnel. We may be unable to do so. Failure to meet the operational challenges of developing and managing increased production of isobutanol and/or ethanol, or failure to otherwise manage our growth, may have a material adverse effect on our business, financial condition and results of operations.

We may have difficulty adapting our technology to commercial-scale fermentation, which could delay or prevent our commercialization of isobutanol.

While we have demonstrated the ability to produce isobutanol under the demonstration plant operating conditions and under commercial scale operating conditions at the Agri-Energy Facility, and we have succeeded in reaching our commercial fermentation performance targets for isobutanol concentration, fermentation productivity and isobutanol yield in laboratory tests, we have not yet reached all performance targets in a commercial plant environment. Ultimately, our yeast biocatalyst may not be able to meet the commercial performance targets in a timely manner, or ever. In addition, the risk of contamination and other problems may increase as we seek to ramp up our production capacity, which could negatively impact our cost of production or require additional capital expenditures to solve for these problems. If we encounter difficulties in optimizing our production, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We may have difficulties gaining market acceptance and successfully marketing our isobutanol and other hydrocarbon products to customers, including chemical producers, fuel distributors and refiners.

A key component of our business strategy is to market our isobutanol and other hydrocarbon products to chemical producers, fuels distributors, refiners and other fuel and chemical industry market participants. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market our isobutanol to refiners, fuels distributors, chemical producers and others, our business, financial condition and results of operations will be materially adversely affected.

We also intend to market our isobutanol to chemical producers for use in making various chemicals such as isobutylene, a type of butene that can be produced through the dehydration of isobutanol. Although a significant market currently exists for isobutylene produced from petroleum, which is widely used in the production of plastics, specialty chemicals, alkylate for gasoline blending and high octane aviation gasoline, no one has successfully created isobutylene on a commercial scale from bio-isobutanol. Therefore, to gain market acceptance and successfully market our isobutanol to chemical producers, we must show that our isobutanol can be converted into isobutylene at a commercial scale. As no company currently dehydrates commercial volumes of isobutanol into isobutylene, we must demonstrate the large-scale feasibility of the process and potentially reach agreements with companies that are willing to invest in the necessary dehydration infrastructure. Failure to reach favorable agreements with these companies, or the inability of their plants to convert isobutanol into isobutylene at sufficient scale, may slow our development in the chemicals market and could significantly affect our profitability.

Obtaining market acceptance in the chemicals industry is complicated by the fact that many potential chemicals industry customers have invested substantial amounts of time and money in developing petroleum-based production channels. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of chemical components, and may display substantial resistance to changing these processes. Pre-existing contractual commitments, unwillingness to invest in new

infrastructure, distrust of new production methods and lengthy relationships with current suppliers may all slow market acceptance of isobutanol.

A very limited market currently exists for isobutanol as a fuel or as a gasoline blendstock. Therefore, to gain market acceptance and successfully market our isobutanol to fuels distributors and refiners, we must effectively demonstrate the commercial advantages of using isobutanol over other biofuels and blendstocks, as well as our ability to produce isobutanol reliably on a commercial scale at a sufficiently low cost. We must show that isobutanol is compatible with existing infrastructure and does not damage pipes, engines, storage facilities or pumps. We must also overcome marketing and lobbying efforts by producers of other biofuels and blendstocks, including ethanol, many of whom may have greater resources than we do. If the markets for isobutanol as a fuel or as a gasoline blendstock do not develop as we currently anticipate, or if we are unable to penetrate these markets successfully, our revenue and growth rate could be materially and adversely affected.

We believe that consumer demand for environmentally sensitive products will drive demand among large brand owners for isobutanol and renewable hydrocarbon sources. One of our marketing strategies is to leverage this demand to obtain commitments from large brand owners to purchase products made from our isobutanol by third parties. We believe these commitments will, in turn, promote chemicals industry demand for our isobutanol and hydrocarbon products. If consumer demand for environmentally sensitive products fails to develop at sufficient scale or if such demand fails to drive large brand owners to seek sources of renewable isobutanol or hydrocarbons, our revenue and growth rate could be materially and adversely affected.

We may have difficulties scaling up our hydrocarbon technology, and, as such, we may be unable to produce commercial quantities of our hydrocarbons, and any such production may be more costly than we anticipate

We have developed a hydrocarbon processing demonstration plant (“Hydrocarbons Demo Plant”) in Silsbee, Texas, in partnership with South Hampton Resources, Inc. The Hydrocarbon Demo Plant can process approximately 6,000 to 7,000 gallons of our isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals. We have demonstrated the ability to convert our isobutanol at this level into products such as ATJ, isooctane, isooctene and par-xylene.

The production and sale of commercial volumes of hydrocarbons such as ATJ, isooctane and isooctene, produced from our isobutanol is anticipated to be an important part of our future business plans. However, we may encounter challenges in scaling up our process to convert isobutanol into hydrocarbon products successfully. In addition, the cost to construct commercial hydrocarbons facilities or the production costs associated with the operation of such facilities may be higher than we project. If we encounter such difficulties, this may significantly impact the development of the markets for our hydrocarbon products and could significantly affect our profitability.

We may be reliant on Butamax to develop certain markets for isobutanol.

As part of the License Agreement entered into with Butamax, it was agreed that Butamax would take the lead in developing the markets for on-road gasoline blendstocks. This would entail progressing the required approvals for these markets, as well as managing the marketing and distribution of our isobutanol and our potential licensee’s isobutanol in these markets beyond certain minimum volumes. If Butamax is unable to obtain the necessary approvals to sell isobutanol into the on-road gasoline blendstock markets, or if it is unsuccessful in building market demand for isobutanol as an on-road gasoline blendstock, our revenue and growth rate could be materially and adversely affected.

We may be required to pay Butamax royalties for selling isobutanol into certain markets, which could hinder our ability to competitively sell our isobutanol into those markets.

As part of the License Agreement entered into with Butamax, it was agreed that we, and our potential licensees, may be required to pay Butamax royalties for selling isobutanol into the on-road gasoline blendstock markets and the chemical isobutylene applications markets beyond certain minimum volumes. The addition of these royalties may make our isobutanol uncompetitive from a price perspective, which may hinder our ability to sell into these markets. If this is the case, our revenue and growth rate could be materially and adversely affected.

We may be unable to successfully negotiate final, binding terms related to our current non-binding isobutanol, ATJ and other hydrocarbon supply and distribution agreements, which could harm our commercial prospects.

From time-to-time, we agree to preliminary terms regarding supplying isobutanol or the products derived from it to various companies for their use or further distribution. We may be unable to negotiate final terms with these or other companies in a timely manner, or at all, and there is no guarantee that the terms of any final agreement will be the same or similar to those currently contemplated in our preliminary agreements. Final terms may include less favorable pricing structures or volume commitments, more

expensive delivery or purity requirements, reduced contract durations and other adverse changes. Delays in negotiating final contracts could slow our initial isobutanol commercialization, and failure to agree to definitive terms for sales of sufficient volumes of isobutanol could prevent us from growing our business. To the extent that terms in our initial supply and distribution contracts may influence negotiations regarding future contracts, the failure to negotiate favorable final terms related to our current preliminary agreements could have an especially negative impact on our growth and profitability. Additionally, we have not demonstrated that we can meet the production levels contemplated in our current non-binding supply agreements. If our production scale-up proceeds more slowly than we expect, or if we encounter difficulties in successfully completing plant Retrofits, potential customers, including those with whom we have current letters of intent, may be less willing to negotiate definitive supply agreements, or demand terms less favorable to us, and our performance may suffer.

Even if we are successful in consistently producing isobutanol and our hydrocarbon products on a commercial scale, we may not be successful in negotiating sufficient supply agreements for our production.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to successfully negotiate and structure long-term supply agreements for the isobutanol and other products we produce. Certain agreements with existing and potential customers may initially only provide for the purchase of limited quantities from us. For example, our agreement with Alaska Airlines entered into in May 2015 provides for the initial purchase of a limited quantity of our ATJ fuel, and does not obligate Alaska Airlines to purchase any additional quantity of jet fuel in addition to the amount to be initially purchased. Our ability to increase our sales will depend in large part upon our ability to expand these existing customer relationships into long-term supply agreements. Maintaining and expanding our existing relationships and establishing new ones can require substantial investment without any assurance from customers that they will place significant orders. In addition, many of our potential customers may be more experienced in these matters than we are, and we may fail to successfully negotiate these agreements in a timely manner or on favorable terms which, in turn, may force us to slow our production, delay our acquiring and Retrofitting of additional plants, dedicate additional resources to increasing our storage capacity and/or dedicate resources to sales in spot markets. Furthermore, should we become more dependent on spot market sales, our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for petroleum-based fuels and competing substitutes.

Even if we are successful in consistently producing isobutanol and our hydrocarbon products on a commercial scale, we may not be successful in negotiating pricing terms sufficient to generate positive results from operations at the Agri-Energy Facility.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to negotiate pricing terms for the isobutanol and other products we produce that generate positive results from the operations of the Agri-Energy Facility. Many of our potential customers may be more experienced in these matters than we are. We may fail to negotiate these agreements in a timely manner, which may force us to dedicate resources to sales in spot markets. If we become more dependent on spot market sales our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for our products.

Our isobutanol may be less compatible with existing refining and transportation infrastructure than we believe, which may hinder our ability to market our product on a large scale.

We developed our business model based on our belief that our isobutanol is fully compatible with existing refinery infrastructure. For example, when making isobutanol blends, we believe that gasoline refineries will be able to pump our isobutanol through their pipes and blend it in their existing facilities without damaging their equipment. If our isobutanol proves unsuitable for such handling, it will be more expensive for refiners to use our isobutanol than we anticipate, and they may be less willing to adopt it as a gasoline blendstock, forcing us to seek alternative purchasers.

Likewise, our plans for marketing our isobutanol are based upon our belief that it will be compatible with the pipes, tanks and other infrastructure currently used for transporting, storing and distributing gasoline. If our isobutanol or products incorporating our isobutanol cannot be transported with this equipment, we will be forced to seek alternative transportation arrangements, which will make our isobutanol and products produced from our isobutanol more expensive to transport and less appealing to potential customers. Reduced compatibility with either refinery or transportation infrastructure may slow or prevent market adoption of our isobutanol, which could substantially harm our performance.

A sustained low oil price environment may negatively impact the price we receive for the sale of our isobutanol, ethanol and hydrocarbon products.

Many of our end-products such as isobutanol, ethanol and hydrocarbon products have some level of price correlation with crude oil. If crude oil prices were to remain at low levels over a sustained period of time, this may have an impact on the pricing that we are able to achieve in the marketplace for many of those end-products. This may cause us to operate at a lower, or negative, operating margins and, as a result, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility. Unfavorable operating margins may also impact our ability to access and Retrofit, either independently or with potential development partners or licensees, existing ethanol facilities for the production of isobutanol for commercial distribution and sale.

If we engage in additional acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we may acquire businesses, assets, technologies or products to enhance our business in the future. In connection with any future acquisitions, we could, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox:

- issue additional equity securities which would dilute our current stockholders;
- incur substantial debt to fund the acquisitions; or
- assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core business, adverse effects on existing business relationships with current and/or prospective partners, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. Other than our acquisition of Agri-Energy, we have not engaged in acquisitions in the past, and do not have experience in managing the integration process. Therefore, we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to acquisitions and are unable to efficiently operate as a combined organization, our business, financial condition and results of operations may be materially adversely affected.

If we engage in additional joint ventures, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we may enter into joint ventures with the owners of existing ethanol production facilities in order to acquire access to additional isobutanol production capacity, such as the agreement we entered into with Redfield. We currently anticipate that in each such joint venture, the ethanol producer would contribute access to its existing ethanol production facility and we would be responsible for Retrofitting such facility to produce isobutanol. Upon completion of the Retrofit, and in some cases the attainment of certain performance targets, both parties to the joint venture would receive a portion of the profits from the sale of isobutanol, consistent with our business model. In connection with these joint ventures, we could incur substantial debt to fund the Retrofit of the accessed facilities and we could assume significant liabilities.

Realizing the anticipated benefits of joint ventures, including projected increases to production capacity and additional revenue opportunities, involves a number of potential challenges. The failure to meet these challenges could seriously harm our financial condition and results of operations. Joint ventures are complex and time-consuming and we may encounter unexpected difficulties or incur unexpected costs related to such arrangements, including:

- difficulties negotiating joint venture agreements with favorable terms and establishing relevant performance metrics;
- difficulties completing the Retrofits of the accessed facilities using our integrated fermentation technology;
- the inability to meet applicable performance targets related to the production of isobutanol;
- difficulties obtaining the permits and approvals required to produce and sell our products in different geographic areas;
- complexities associated with managing the geographic separation of accessed facilities;
- diversion of management attention from ongoing business concerns to matters related to the joint ventures;

- difficulties maintaining effective relationships with personnel from different corporate cultures; and
- the inability to generate sufficient revenue to offset Retrofit costs.

Additionally, our joint venture partners may have liabilities or adverse operating issues that we fail to discover through due diligence prior to entering into the joint ventures. In particular, to the extent that our joint venture partners failed to comply with or otherwise violated applicable laws or regulations, or failed to fulfill their contractual obligations, we may suffer financial harm and/or reputational harm for these violations or otherwise be adversely affected.

Our joint venture partners may have significant amounts of existing debt and may not be able to service their existing debt obligations, which could cause the failure of a specific project and the loss by us of any investment we have made to Retrofit the facilities owned by the joint venture partner. In addition, if we are unable to meet specified performance targets related to the production of isobutanol at a facility owned by one of our joint venture partners, we may never become eligible to receive a portion of the profits of the joint venture and may be unable to recover the costs of Retrofitting the facility.

Additionally, we plan to be a leading marketer for all isobutanol and co-products produced using our proprietary technology and sold in markets other than on-road gasoline blendstocks including, without limitation, all isobutanol that is produced by any facilities that we access via joint venture. Marketing agreements can be very complex and the obligations that we assume as a leading marketer of isobutanol may be time consuming. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market the isobutanol produced using our proprietary technology to refiners and chemical producers, our business, financial condition and results of operations will be materially adversely affected.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs and harm our research and development efforts, we may be unable to pursue partnerships or develop our own products and it may trigger an event of default under the agreements governing our indebtedness.

Our business is complex and we intend to target a variety of markets. Therefore, it is critical that our management team and employee workforce are knowledgeable in the areas in which we operate. The loss of any key members of our management, including our named executive officers, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. In addition, the loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the advanced biofuels area, or due to the limited availability of personnel with the qualifications or experience necessary for our renewable chemicals and advanced biofuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our partners and customers in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. Additionally, certain changes in our management could trigger an event of default under the agreements governing our indebtedness, and we could be forced to pay the outstanding balance of the loan(s) in full. All of our employees are at-will employees, meaning that either the employee or we may terminate their employment at any time.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technology platform or acquired through strategic or other transactions, especially in the end markets that we seek to penetrate. These activities will require the addition of new personnel, and the development of additional expertise by existing personnel. The inability to attract personnel with appropriate skills or to develop the necessary expertise could impair our ability to grow our business.

Our government grants are subject to uncertainty, which could harm our business and results of operations.

We have received various government grants, including a cooperative agreement, to complement and enhance our own resources. We may seek to obtain government grants and subsidies in the future to offset all or a portion of the costs of Retrofitting existing ethanol manufacturing facilities and the costs of our research and development activities. We cannot be certain that we will be able to secure any such government grants or subsidies. Any new grants that we may obtain may be terminated, modified or recovered by the granting governmental body under certain conditions.

We may also be subject to audits by government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by us toward the research and development programs specified by the granting agencies, rather than for all of our programs generally. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to our revenues and results of operations.

We may face substantial competition from companies with greater resources and financial strength which could adversely affect our performance and growth.

We may face substantial competition in the markets for isobutanol, ethanol, polyester, rubber, plastics, fibers, other polymers and hydrocarbon fuels. Our competitors include companies in the incumbent petroleum-based industry as well as those in the nascent biorenewable industry. The incumbent petroleum-based industry benefits from a large established infrastructure, production capability and business relationships. The incumbents' greater resources and financial strength provide significant competitive advantages that we may not be able to overcome in a timely manner. Academic and government institutions may also develop technologies which will compete with us in the chemicals, solvents and blendstock markets.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation. Furthermore, to secure purchase agreements from certain customers, we may be required to enter into exclusive supply contracts, which could limit our ability to further expand our sales to new customers. Likewise, major potential customers may be locked into long-term, exclusive agreements with our competitors, which could inhibit our ability to compete for their business.

In addition, various governments have recently announced a number of spending programs focused on the development of clean technologies, including alternatives to petroleum-based fuels and the reduction of carbon emissions. Such spending programs could lead to increased funding for our competitors or a rapid increase in the number of competitors within those markets.

Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position and prevent us from obtaining or maintaining profitability.

Our future success will depend on our ability to maintain a competitive position with respect to technological advances.

The biorenewable industry is characterized by rapid technological change. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological development by others may impact the competitiveness of our products in the marketplace. Competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

We may face significant and substantial competition as it relates to our proprietary biofuels which could adversely affect our performance and growth.

In the production of isobutanol, we face competition from Butamax. Additionally, a number of companies including Cathay Industrial Biotech, Ltd., Green Biologics Ltd., METabolic Explorer, S.A. and Eastman Chemical Company (which acquired TetraVitae Bioscience, Inc. in November 2011) are developing n-butanol production capability from a variety of renewable feedstocks.

In the ethanol market, we operate in a highly competitive industry in the U.S. According to the Renewable Fuels Association, there are over 200 ethanol facilities in the U.S. with an installed nameplate capacity of almost 15 billion gallons. Some of the key competitors in the U.S. include Archer-Daniels-Midland Company, Green Plains, Inc., POET, LLC and Valero Energy Corporation. We also face competition from foreign producers of ethanol. Brazil is believed to be the world's second largest ethanol producing country. Many producers have much larger production capacities and operate at a lower cost of production than we do. As a result, these companies may be able to compete more effectively in narrower commodity margin environments.

In the gasoline blendstock market, we will compete with our isobutanol against renewable ethanol producers (including those working to produce ethanol from cellulosic feedstocks), producers of alkylate from petroleum and producers of other blendstocks, all of whom may reduce our ability to obtain market share or maintain our price levels. For example, Coskata, Inc. is developing a hybrid thermochemical-biocatalytic process to produce ethanol from a variety of feedstocks. If any of these competitors succeed in producing blendstocks more efficiently, in higher volumes or offering superior performance than our isobutanol, our financial performance may suffer. Furthermore, if our competitors have more success marketing their products or reach development or supply agreements with major customers, our competitive position may also be harmed.

In the production of other biofuels, including our hydrocarbon products, key competitors include Shell Oil Company, BP, DuPont-Danisco Cellulosic Ethanol LLC, POET, LLC, ICM, Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Archer Daniels Midland Company, BlueFire Renewables, Inc., ZeaChem Inc., Iogen Corporation, Qteros, Inc., and many smaller startup companies. If these companies are successful in establishing low cost cellulosic ethanol or other fuel production, it could negatively impact the market for our isobutanol as a gasoline blendstock. In the markets for the hydrocarbon fuels that we plan to produce from our isobutanol, we will face competition from the incumbent petroleum-based fuels industry. The incumbent petroleum-based fuels industry makes the vast majority of the world's gasoline, jet and diesel fuels and blendstocks. It is a mature industry with a substantial base of infrastructure for the production and distribution of petroleum-derived products. The size, established infrastructure and significant resources of many companies in this industry may put us at a substantial competitive disadvantage and delay or prevent the establishment and growth of our business in the market for hydrocarbon fuels.

Biofuels companies may also provide substantial competition in the hydrocarbon fuels market. With respect to production of renewable gasoline, biofuels competitors are numerous and include both large established companies and numerous startups. For example, Virent Energy Systems, Inc. has developed a process for making gasoline and gasoline blendstocks. Many other competitors may do so as well. In the jet fuel market, we will face competition from companies such as Synthetic Genomics, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation that are pursuing production of jet fuel from algae-based technology. Renewable Energy Group, Inc. and others are also targeting production of jet fuels from vegetable oils and animal fats. Red Rock Biofuels LLC and others are planning to produce jet fuel from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrogenated fatty acid methyl esters. In the diesel fuels market, competitors such as Amyris Biotechnologies, Inc. and Renewable Energy Group, Inc. have developed technologies for production of alternative hydrocarbon diesel fuel.

Our competitive position in the polyester, rubber, plastics, fibers and other polymers markets versus the incumbent petroleum-derived products and other renewable butanol producers may not be favorable.

In the polyester, rubber, plastics, fibers and other polymers markets, we face competition from incumbent petroleum-derived products, other renewable isobutanol producers and renewable n-butanol producers. Our competitive position versus the incumbent petroleum-derived products and other renewable butanol producers may not be favorable. Petroleum-derived products have dominated the market for many years and there is substantial existing infrastructure for production from petroleum sources, which may impede our ability to establish a position in these markets. Other isobutanol and n-butanol companies may develop technologies that prove more effective than our isobutanol production technology, or such companies may be more adept at marketing their production. Additionally, one company in France, Global Bioenergies, S.A., is pursuing the production of isobutylene from renewable carbohydrates directly. Since conversion of isobutanol to butenes such as isobutylene is a key step in producing many polyester, rubber, plastics, fibers and other polymers from our isobutanol, this direct production of renewable isobutylene, if successful, could limit our opportunities in these markets.

In the polyester, rubber, plastics, fibers and other polymers markets, we expect to face vigorous competition from existing technologies. The companies we may compete with may have significantly greater access to resources, far more industry experience and/or more established sales and marketing networks. Additionally, since we do not plan to produce most of these products directly, we will depend on the willingness of potential customers to purchase and convert our isobutanol into their products. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of the chemical components of their products and may have a resistance to changing these processes and components. These potential customers frequently impose lengthy and complex product qualification procedures on their suppliers, influenced by consumer preference, manufacturing considerations such as process changes and capital and other costs associated with transitioning to alternative components, supplier operating history, regulatory issues, product liability and other factors, many of which are unknown to, or not well understood by, us. Satisfying these processes may take many months or years. If we are unable to convince these potential customers that our isobutanol is comparable or superior to the alternatives that they currently use, we will not be successful in entering these markets and our business will be adversely affected.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

We are vulnerable to natural disasters and other events that could disrupt our operations, such as riots, civil disturbances, war, terrorist acts, floods, infections in our laboratory or production facilities or those of our contract manufacturers and other events

beyond our control. We do not have a detailed disaster recovery plan. In addition, we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business.

We may engage in hedging transactions, which could harm our business.

We have historically engaged in hedging transactions to offset some of the effects of volatility in commodity prices. We have generally followed a policy of using exchange-traded futures contracts to reduce our net position in agricultural commodity inventories and forward purchase contracts to manage price risk. Hedging activities may cause us to suffer losses, such as if we purchase a position in a declining market or sell a position in a rising market. Furthermore, hedging exposes us to the risk that we may have under- or over-estimated our need for a specific commodity or that the other party to a hedging contract may default on its obligation. If there are significant swings in commodity prices, or if we purchase more corn for future delivery than we can process, we may have to pay to terminate a futures contract, resell unneeded corn inventory at a loss, or produce our products at a loss, all of which would have a material adverse effect on our financial performance. We may vary the hedging strategies we undertake, which could leave us more vulnerable to increases in commodity prices or decreases in the prices of isobutanol, distiller's grains, iDGs™ or ethanol. Losses from hedging activities and changes in hedging strategy could have a material adverse effect on our operations.

Ethical, legal and social concerns about genetically engineered products and processes, and similar concerns about feedstocks grown on land that could be used for food production, could limit or prevent the use of our products, processes and technologies and limit our revenues.

Some of our processes involve the use of genetically engineered organisms or genetic engineering technologies. Additionally, our feedstocks may be grown on land that could be used for food production, which subjects our feedstock sources to "food versus fuel" concerns. If we are not able to overcome the ethical, legal and social concerns relating to genetic engineering or food versus fuel, our products and processes may not be accepted. Any of the risks discussed below could result in increased expenses, delays or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions.

Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;
- public attitudes regarding and potential changes to laws governing ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage others from supporting, developing or commercializing our products, processes and technologies;
- public attitudes and ethical concerns surrounding production of feedstocks on land which could be used to grow food, which could influence public acceptance of our technologies, products and processes;
- governmental reaction to negative publicity concerning genetically engineered organisms, which could result in greater government regulation of genetic research and derivative products; and
- governmental reaction to negative publicity concerning feedstocks produced on land which could be used to grow food, which could result in greater government regulation of feedstock sources.

The subjects of genetically engineered organisms and food versus fuel have received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically engineered products or feedstocks grown on land suitable for food production.

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may be exposed to liability for any resulting harm.

As isobutanol has not previously been used as a commercial fuel in significant amounts, its use subjects us to product liability risks, and we may have difficulties obtaining product liability insurance.

Isobutanol has not previously been used as a commercial fuel and research regarding its impact on engines and distribution infrastructure is ongoing. Though we intend to test our isobutanol further before its commercialization, there is a risk that it may damage engines or otherwise fail to perform as expected. If isobutanol degrades the performance or reduces the lifecycle of engines,

or causes them to fail to meet emissions standards, market acceptance could be slowed or stopped, and we could be subject to product liability claims. Furthermore, due to isobutanol's lack of commercial history as a fuel, we are uncertain as to whether we will be able to acquire product liability insurance on reasonable terms, or at all. A significant product liability lawsuit could substantially impair our production efforts and could have a material adverse effect on our business, reputation, financial condition and results of operations.

We may not be able to use some or all of our net operating loss carry-forwards to offset future income.

We have net operating loss carryforwards due to prior period losses, which if not utilized will begin to expire at various times over the next 20 years. If we are unable to generate sufficient taxable income to utilize our net operating loss carryforwards, these carryforwards could expire unused and be unavailable to offset future income tax liabilities.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period) is subject to limitation on its ability to utilize its pre-change net operating loss carry-forwards, or net operating losses, to offset future taxable income. We may have experienced one or more ownership changes in prior years, and the issuance of shares in connection with our initial public offering may itself have triggered an ownership change. In addition, future changes in our stock ownership, which may be outside of our control, may trigger an ownership change, as may future equity offerings or acquisitions that have equity as a component of the purchase price. If an ownership change has occurred or does occur in the future, our ability to utilize our net operating losses to offset income if we attain profitability may be limited.

If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 ("Section 404") requires us to evaluate and report on our internal control over financial reporting and have our principal executive officer and principal financial officer certify as to the accuracy and completeness of our financial reports. The process of maintaining our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention of management. We cannot be certain that these measures will ensure that we maintain adequate controls over our financial processes and reporting in the future. Even if we conclude that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, because of their inherent limitations, our internal controls over financial reporting may not prevent or detect fraud or misstatements. Failure to maintain required controls or implement new or additional controls as circumstances warrant, or difficulties encountered in maintaining or implementing controls, could harm our results of operations or cause us to fail to meet our reporting obligations.

Our management has concluded that there are no material weaknesses in our internal controls over financial reporting as of December 31, 2016. However, there can be no assurance that our controls over financial processes and reporting will be effective in the future or that additional material weaknesses or significant deficiencies in our internal controls will not be discovered in the future. If we, or our independent registered public accounting firm, discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and harm our stock price. In addition, a delay in compliance with Section 404 could subject us to a variety of administrative sanctions, including SEC action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

We may enter into letters of intent, memoranda of understanding and other largely non-binding agreements with potential customers or partners that may not result in legally binding, definitive agreements.

From time to time, we may enter into letters of intent, memoranda of understanding and other largely non-binding agreements or understandings with potential customers or partners in order to develop our business and the markets that we serve. We can make no assurance that legally binding, definitive agreements reflecting the terms of such non-binding agreements will be completed with such customers or partners, or at all.

Risks Related to Intellectual Property

Our ability to compete may be adversely affected if we are unsuccessful in defending against any claims by competitors or others that we are infringing upon their intellectual property rights.

The various bioindustrial markets in which we plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property-dependent industries, including the renewable energy industry, have employed intellectual property litigation as a means to gain an advantage over their competitors. As a result, we may be required to defend against claims of intellectual property infringement that may be asserted by our competitors against us and, if the outcome of any such litigation is adverse to us, it may affect our ability to compete effectively.

Litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the U.S. may divert management time from focusing on business operations, could cause us to spend significant amounts of money and may have no guarantee of success. Any future intellectual property litigation could also force us to do one or more of the following:

- stop selling, incorporating, manufacturing or using our products that use the subject intellectual property;
- obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all;
- redesign those products or processes, such as our process for producing isobutanol, that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible;
- pay attorneys' fees and expenses; or
- pay damages, including the possibility of treble damages in a patent case if a court finds us to have willfully infringed certain intellectual property rights.

We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. We cannot assure you that we will ultimately prevail if any of this third-party intellectual property is asserted against us.

Our ability to compete may be adversely affected if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights through costly litigation or administrative proceedings.

Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U.S. and other countries. We have adopted a strategy of seeking patent protection in the U.S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. We own rights to hundreds of issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. When and if issued, patents would expire at the end of their term and any patent would only provide us commercial advantage for a limited period of time, if at all. Our patent applications are directed to our enabling technologies and to our methods and products which support our business in the advanced biofuels and renewable chemicals markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

Only approximately 44 of the patent applications that we have filed in the U.S. or in any foreign jurisdictions, and only certain of the patent applications filed by third parties in which we own rights, have been issued. A filed patent application does not guarantee a patent will issue and a patent issuing does not guarantee its validity, nor does it give us the right to practice the patented technology or commercialize the patented product. Third parties may have or obtain rights to "blocking patents" that could be used to prevent us from commercializing our products or practicing our technology. The scope and validity of patents and success in prosecuting patent applications involve complex legal and factual questions and, therefore, issuance, coverage and validity cannot be predicted with any certainty. Patents issuing from our filed applications may be challenged, invalidated or circumvented. Moreover, third parties could practice our inventions in secret and in territories where we do not have patent protection. Such third parties may then try to sell or import products made using our inventions in and into the U.S. or other territories and we may be unable to prove that such products were made using our inventions. Additional uncertainty may result from implementation of the Leahy-Smith America Invents Act, enacted in September 2011, as well as other potential patent reform legislation passed by the U.S. Congress and from legal precedent handed down by the Federal Circuit Court and the U.S. Supreme Court, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to the validity of any patents that may issue and the potential for "blocking patents" coming into force at some future date. Accordingly, we cannot ensure that any of our currently filed or future patent applications will result in issued patents, or even if issued, predict the scope of the claims that may issue in our and other companies' patents. Currently, one of our issued patents is being challenged in regulatory proceedings before the USPTO. These

proceedings may result in the claims being amended or canceled. If the claims are amended or canceled, the scope of our patents claims may be narrowed, which may reduce the scope of protection afforded by our patent portfolio. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that (i) we were the first to make the inventions covered by each of our filed applications, (ii) we were the first to file patent applications for these inventions, (iii) the proprietary technologies we develop will be patentable, (iv) any patents issued will be broad enough in scope to provide commercial advantage and prevent circumvention, and (v) competitors and other parties do not have or will not obtain patent protection that will block our development and commercialization activities.

These concerns apply equally to patents we have licensed, which may likewise be challenged, invalidated or circumvented, and the licensed technologies may be obstructed from commercialization by competitors' "blocking patents." In addition, we generally do not control the patent prosecution and maintenance of subject matter that we license from others. Generally, the licensors are primarily or wholly responsible for the patent prosecution and maintenance activities pertaining to the patent applications and patents we license, while we may only be afforded opportunities to comment on such activities. Accordingly, we are unable to exercise the same degree of control over licensed intellectual property as we exercise over our own intellectual property and we face the risk that our licensors will not prosecute or maintain it as effectively as we would like.

In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, particularly where, as here, the end products reaching the market generally do not reveal the processes used in their manufacture, and particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the U.S., so we cannot be certain that the steps we have taken in obtaining intellectual property and other proprietary rights will prevent unauthorized use of our technology. If competitors are able to use our technology without our authorization, our ability to compete effectively could be adversely affected. Moreover, competitors and other parties such as universities may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, the potential competitive advantages provided by our intellectual property may be adversely affected. We may then need to license these competing technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause material harm to our business. Accordingly, litigation may be necessary for us to assert claims of infringement, enforce patents we own or license, protect trade secrets or determine the enforceability, scope and validity of the intellectual property rights of others.

Our commercial success also depends in part on not infringing patents and proprietary rights of third parties, and not breaching any licenses or other agreements that we have entered into with regard to our technologies, products and business. We cannot be certain that patents have not or will not issue to third parties that could block our ability to obtain patents or to operate our business as we would like, or at all. There may be patents in some countries that, if valid, may block our ability to commercialize products in those countries if we are unsuccessful in circumventing or acquiring rights to these patents. There may also be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize products or processes in these countries if we are unable to circumvent or license them.

As is commonplace in the biotechnology industries, some of our directors, employees and consultants are or have been employed at, or associated with, companies and universities that compete with us or have or will develop similar technologies and related intellectual property. While employed at these companies, these employees, directors and consultants may have been exposed to or involved in research and technology similar to the areas of research and technology in which we are engaged. Though we have not received such a complaint, we may be subject to allegations that we, our directors, employees or consultants have inadvertently or otherwise used, misappropriated or disclosed alleged trade secrets or confidential or proprietary information of those companies. Litigation may be necessary to defend against such allegations and the outcome of any such litigation would be uncertain.

Under some of our research agreements, our partners share joint rights in certain intellectual property we develop. Such provisions may limit our ability to gain commercial benefit from some of the intellectual property we develop, and may lead to costly or time-consuming disputes with parties with whom we have commercial relationships over rights to certain innovations.

If any other party has filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference, derivation or other proceedings declared by the USPTO to determine priority of invention and, thus, the right to the patents for these inventions in the U.S. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, such a proceeding may result in the loss of certain claims. Even successful outcomes of such proceedings could result in significant legal fees and other expenses, diversion of management time and efforts and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.

Third parties, including our contract manufacturers, customers and those involved in shipping our biocatalysts, may have custody or control of our biocatalysts. If our biocatalysts, or the genes that code for our biocatalysts, were stolen, misappropriated or

reverse engineered, they could be used by other parties who may be able to reproduce these biocatalysts for their own commercial gain. If this were to occur, it would be difficult for us to discover or challenge this type of use, especially in countries with limited intellectual property protection.

During the ordinary course of business, we may become subject to lawsuits or indemnity claims, which could materially and adversely affect our business and results of operations.

From time to time, we may in the ordinary course of business be named as a defendant in lawsuits, claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, worker's compensation, employment discrimination, breach of contract, property damages, civil penalties and other losses of injunctive or declaratory relief. In the event that such actions or indemnities are ultimately resolved unfavorably at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions, and, particularly as we move forward in our partnerships with Porta, Praj, and future international partners, we may face new and increased risks and challenges in protecting and enforcing our intellectual property rights abroad. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bioindustrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop.

Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information.

We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that know-how and inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, these agreements may not be enforceable, our proprietary information may be disclosed, third parties could reverse engineer our biocatalysts and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. In addition, an unauthorized breach in our information technology systems may expose our trade secrets and other proprietary information to unauthorized parties.

We have received funding from U.S. government agencies, which could negatively affect our intellectual property rights.

Some of our research has been funded by grants from U.S. government agencies. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a nonexclusive license authorizing the government to use the invention or technical data for noncommercial purposes. U.S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march-in rights. March-in rights refer to the right of the U.S. government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible applicant or, if we refuse, to grant such a license itself. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. If we breach the terms of our grants, the government may gain rights to the intellectual property developed in our related research. The government's rights in our intellectual property may lessen its commercial value, which could adversely affect our performance.

Legal and Regulatory Risks

We may face substantial delays in obtaining regulatory approvals for use of our isobutanol and hydrocarbon products in the fuels and chemicals markets, which could substantially hinder our ability to commercialize our products.

Large-scale commercialization of our isobutanol may require approvals from state and federal agencies. Before we can sell isobutanol as a fuel or as a gasoline blendstock directly to large petroleum refiners, we must receive EPA fuel certification. We have filed an EPA Part 79 registration to move our small business registration to a full registration (including Tier 1 EPA testing), but the approval process may require significant time. Approval can be delayed for years, and there is no guarantee of receiving it.

Additionally, California requires that fuels meet both its fuel certification requirements and a separate state low-carbon fuel standard. Any delay in receiving approval will slow or prevent the commercialization of our isobutanol for fuel markets, which could have a material adverse effect on our business, financial condition and results of operations.

With respect to the chemicals markets, we plan to focus on isobutanol production and sell to companies that can convert our isobutanol into other chemicals, such as isobutylene. However, should we later decide to produce these other chemicals ourselves, we may face similar requirements for EPA and other regulatory approvals. Approval, if ever granted, could be delayed for substantial amounts of time, which could significantly harm the development of our business and prevent the achievement of our goals.

Our isobutanol fermentation process utilizes a genetically modified organism which, when used in an industrial process, is considered a new chemical under the EPA's Toxic Substances Control Act ("TSCA"). The TSCA requires us to comply with the EPA's Microbial Commercial Activity Notice process to operate plants producing isobutanol using our biocatalysts. The TSCA's new chemicals submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our isobutanol production.

There are various third-party certification organizations, such as ASTM and Underwriters' Laboratories, Inc., involved in standard-setting regarding the transportation, dispensing and use of liquid fuel in the U.S. and abroad. These organizations may change the current standards and additional requirements may be enacted that could prevent or delay approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable standards may require the expenditure of substantial resources, and there is no guarantee that we will satisfy these standards in a timely manner, if ever.

In addition, to Retrofit or otherwise modify ethanol facilities and operate the Retrofitted and modified plants to produce isobutanol, we will need to obtain and comply with a number of permit requirements. As a condition to granting necessary permits, regulators may make demands that could increase our Retrofit, modification or operations costs, and permit conditions could also restrict or limit the extent of our operations, which could delay or prevent our commercial production of isobutanol. We cannot guarantee that we will be able to meet all regulatory requirements or obtain and comply with all necessary permits to complete our planned ethanol plant Retrofits, and failure to satisfy these requirements in a timely manner, or at all, could have a substantial negative effect on our performance.

Jet fuels must meet various statutory and regulatory requirements before they may be used in commercial aviation. In the U.S., the use of specific jet fuels is regulated by the Federal Aviation Administration ("FAA"). Rather than directly approving specific fuels, the FAA certifies individual aircraft for flight. This certification includes authorization for an aircraft to use the types of fuels specified in its flight manual. To be included in an aircraft's flight manual, the fuel must meet standards set by ASTM. The current ASTM requirements do not permit the use of jet fuel derived from isobutanol, and we will need to give ASTM sufficient data to justify creating a new standard applicable to ATJ fuel. Though our work testing isobutanol-based ATJ fuel with the U.S. Air Force Research Laboratory has provided us with data we believe ASTM will take into consideration, the process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations will require the expenditure of substantial resources. The full ASTM specification for our ATJ fuel is expected to be approved and issued in April 2016 but due to inherent uncertainty in the regulatory process we cannot guarantee that ASTM certification will be received in a timely manner, or at all. Failure to obtain regulatory approval in a timely manner, or at all, could have a significant negative effect on our operations.

Our isobutanol and hydrocarbon products may encounter physical or regulatory issues, which could limit its usefulness as a gasoline blendstock.

In the gasoline blendstock market, isobutanol can be used in conjunction with, or as a substitute for, ethanol and other widely used fuel oxygenates, and we believe our isobutanol will be physically compatible with typical gasoline engines. However, there is a risk that under actual engine conditions, isobutanol will face significant limitations, making it unsuitable for use in high percentage gasoline blends. Additionally, current regulations limit gasoline blends to low percentages of isobutanol, and also limit combination isobutanol-ethanol blends. Government agencies may maintain or even increase the restrictions on isobutanol gasoline blends. As we believe that the potential to use isobutanol in higher percentage blends than is feasible for ethanol will be an important factor in

successfully marketing isobutanol to refiners, a low blend wall could significantly limit commercialization of isobutanol as a gasoline blendstock.

We may be required to obtain additional regulatory approvals for use of our iDGs™ as animal feed, which could delay our ability to sell iDGs™ increasing our net cost of production and harming our operating results.

Many of the ethanol plants we initially plan to Retrofit use dry-milled corn as a feedstock. We plan to sell, as animal feed, the iDGs™ left as a co-product of fermenting isobutanol from dry-milled corn. We believe that this will enable us to offset a significant portion of the expense of purchasing corn for fermentation. We are currently approved to sell iDGs™ as animal feed through a self-assessed Generally Regarded as Safe ("GRAS") process via third party scientific review. In order to improve the value of our iDGs™, we are working with The Association of American Feed Control Officials ("AAFCO") to establish a formal definition for our iDGs™ as well as clearance for the materials into animal feed. We believe obtaining AAFCO approval will increase the value of our iDGs™ by offering customers of our iDGs™ further assurance of the safety of our iDGs™. If we make certain changes in our biocatalyst whereby we can no longer rely on our GRAS process, we would be required to obtain U.S. Federal Drug Administration (the "FDA") approval for marketing our iDGs™. FDA testing and approval can take a significant amount of time, and there is no guarantee that we will ever receive such approval. While we have sold initial quantities of our iDGs ™ from the Agri-Energy Facility, if FDA or AAFCO approval is delayed or never obtained, or if we are unable to secure market acceptance for our iDGs™, our net cost of production will increase, which may hurt our operating results.

Reductions or changes to existing regulations and policies may present technical, regulatory and economic barriers, all of which may significantly reduce demand for biofuels or our ability to supply isobutanol.

The market for biofuels is heavily influenced by foreign, federal, state and local government regulations and policies. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that required nearly 14 billion gallons of liquid transportation fuels sold in 2011 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. Of this amount, a minimum of 21 billion gallons must be advanced biofuels as defined by the U.S. Congress. In the U.S., and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline may cause the demand for biofuels to decline and deter investment in the research and development of biofuels. For example, the Energy and Commerce Committee of the U.S. House of Representatives has undertaken an assessment of the Renewable Fuel Standard program and has published five white papers on the subject during the current congressional period. The EPA has also said that it plans to assess the E10 blendwall and current infrastructure and market-based limitations to the consumption of ethanol in gasoline-ethanol blends above E10. In particular, the EPA is proposing to cut the volume requirements for advanced biofuels by more than 40% when compared to the requirements currently written into the statute. This proposal has created significant concerns throughout the biofuels industry, many of which were voiced by the biofuels industry during the public comment period. This type of legislative activity can create concern in the marketplace about the long-term sustainability of governmental policies. The absence of tax credits, subsidies and other incentives in the U.S. and foreign markets for biofuels, or any inability of our customers to access such credits, subsidies and incentives, may adversely affect demand for our products, which would adversely affect our business. The resulting market uncertainty regarding current and future standards and policies may also affect our ability to develop new renewable products or to license our technologies to third parties and to sell products to our end customers.

Concerns associated with biofuels, including land usage, national security interests and food crop usage, continue to receive legislative, industry and public attention. This attention could result in future legislation, regulation and/or administrative action that could adversely affect our business. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations.

Additionally, like the ethanol facilities that we Retrofit, our isobutanol plants will emit greenhouse gases. Any changes in state or federal emissions regulations, including the passage of cap-and-trade legislation or a carbon tax, could limit our production of isobutanol and iDGs™ and increase our operating costs, which could have a material adverse effect on our business, financial condition and results of operations.

The recent U.S. elections could lead to changes in federal or state laws and regulations that could have a material adverse effect on our business, prospects, financial condition and results of operations.

We use hazardous materials in our business and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance with applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the use of hazardous materials, including chemical, radioactive and biological materials. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or

discharge and any resultant injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities conform in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third-party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

Our expanded international activities may increase our exposure to potential liability under anti-corruption, trade protection, tax and other laws and regulations.

In the course of our relationships with Praj, Porta and future international partners, we may become subject to certain foreign tax, environmental, and health and safety regulations that did not previously apply to us or our products. Such regulations may be unclear, not consistently applied and subject to sudden change. Implementation of compliance policies could result in additional operating costs, and our failure to comply with such laws, even inadvertently, could result in significant fines and/or penalties.

Additionally, the Foreign Corrupt Practices Act and other anti-corruption laws and regulations ("Anti-Corruption Laws") prohibit corrupt payments by our employees, vendors or agents. Even with implementation of policies, training and internal controls designed to reduce the risk of corrupt payments, our employees, vendors or agents may violate our policies. Our international partnerships may significantly increase our exposure to potential liability. Our failure to comply with Anti-Corruption Laws could result in significant fines and penalties, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation.

Risks Related to Owning Our Securities.

Future issuances of our common stock or instruments convertible or exercisable into our common stock, including in connection with conversions of Convertible Notes or exercises of warrants, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.

In order to fund our business over the past few years, we have raised capital by issuing common stock and warrants in underwritten public offerings because no other reasonable sources of capital were available. These underwritten public offerings of common stock and warrants have materially and adversely affected the prevailing market prices of our common stock and caused significant dilution to our stockholders. We anticipate that for the foreseeable future we will continue to raise capital through these dilutive underwritten public offerings of common stock and warrants.

We may obtain additional funds through public or private debt or equity financings in the near future, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox. If we issue additional shares of common stock or instruments convertible into common stock, it may materially and adversely affect the price of our common stock. In addition, the conversion of some or all of the Convertible Notes and/or the exercise of some or all of the warrants may dilute the ownership interests of our stockholders, and any sales in the public market of any of our common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. Additionally, under the terms of certain warrants in the event that a warrant is exercised at a time when we do not have an effective registration statement covering the underlying shares of common stock on file with the SEC, such warrant may be net exercised, which will dilute the ownership interests of existing stockholders without any corresponding benefit to the Company of a cash payment for the exercise price of such warrant.

As of February 28, 2017 we had $1.2 million in outstanding 2022 Notes, which were convertible into 688 shares of common stock at the conversion rate in effect on that date (adjusted for the January 5, 2017 one for twenty reverse stock split). The anticipated conversion of the $1.2 million in outstanding 2022 Notes into shares of our common stock could depress the trading price of our common stock. In addition, we have recently entered into several private exchange agreements with holders of the 2022 Notes to exchange their debt for shares of our common stock, in order to reduce the principal balance of the 2022 Notes. If we issue additional shares of our common stock in such debt-for-equity exchanges, this may cause significant additional dilution to our existing stockholders.

As of February 28, 2017, we had $16.5 million in outstanding 2017 Notes, which were convertible into 50,943 shares of our common stock at the conversion rate in effect on December 31, 2016. The 50,943 shares includes 3,115 shares of common stock that may be issuable from time to time in the event that the Company pays a portion of the interest on the 2017 Notes in kind or elects to

pay make-whole payments due upon conversion of the 2017 Notes, if any, in shares of common stock. The anticipated conversion of the outstanding 2017 Notes (including any interest that is paid in kind) into shares of our common stock could depress the trading price of our common stock. In addition, subject to certain restrictions, we have the option to issue common stock to any converting holder in lieu of making any required make-whole payment in cash. If we elect to issue our common stock for such payment, it will be at the same conversion rate that is applicable to conversions of the principal amount of the 2017 Notes. If we elect to issue additional shares of our common stock for such payments, this may cause significant additional dilution to our existing stockholders.

Our stock price may be volatile, and your investment in our securities could suffer a decline in value.

The market price of shares of our common stock has experienced significant price and volume fluctuations. For example, since February 19, 2011, when we became a public company, through February 28, 2017, the closing sales price for one share of our common stock has reached a high of $7,664.99 and a low $1.01.

We cannot predict whether the price of our common stock will rise or fall. A variety of factors may have a significant effect on our stock price, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the position of our cash and cash equivalents;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- announcements of technological innovations by us, our partners or our competitors;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- the entry into, modification or termination of licensing arrangements, marketing arrangements, and/or research, development, commercialization, supply, off-take or distribution arrangements;
- our ability to consistently produce commercial quantities of isobutanol at the Agri-Energy Facility and ramp up production to nameplate capacity;
- additions or losses of customers or partners;
- our ability to obtain certain regulatory approvals for the use of our isobutanol in various fuels and chemicals markets;
- commodity prices, including oil, ethanol and corn prices;
- additions or departures of key management or scientific personnel;
- competition from existing products or new products that may emerge;
- issuance of new or updated research reports by securities or industry analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- litigation involving us, our general industry or both;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- announcements or expectations of additional financing efforts or the pursuit of strategic alternatives;
- changes in existing laws, regulations and policies applicable to our business and products, including the Renewable Fuel Standard program, and the adoption of or failure to adopt carbon emissions regulation;
- sales of our common stock or equity-linked securities, such as warrants, by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- general market conditions in our industry; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the

market price of shares of our common stock, regardless of our operating performance, and cause the value of your investment to decline. Because our Convertible Notes are convertible into our common stock and our warrants are exercisable into our common stock, volatility or a reduction in the market price of our common stock could have an adverse effect on the trading price of our Convertible Notes and our warrants. Holders who receive common stock upon exercise of the warrants will also be subject to the risk of volatility and a reduction in the market price of our common stock. In addition, the existence of our Convertible Notes and our outstanding warrants may encourage short selling in our common stock by market participants because the conversion of the Convertible Notes or exercise of the warrants could depress the price of our common stock.

Additionally, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation or other derivative shareholder lawsuits. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business regardless of the outcome.

The price of our common stock could also be affected by possible sales of common stock by investors who view our Convertible Notes or warrants as a more attractive means of equity participation in us and by hedging or arbitrage activity involving our common stock. The hedging or arbitrage could, in turn, affect the trading prices of the warrants, or any common stock that holders receive upon exercise of the warrants.

Sales of a substantial number of shares of our common stock or securities linked to our common stock, such as our Convertible Notes and warrants, in the public market could occur at any time. These sales, or the perception in the market that such sales may occur, could reduce the market price of our common stock.

In addition, certain holders of our outstanding common stock (including shares of our common stock issuable upon the conversion of certain Convertible Notes or upon exercise of certain outstanding warrants) have rights, subject to certain conditions, to require us to file registration statements covering their shares and to include their shares in registration statements that we may file for ourselves or other stockholders.

We may not be able to comply with all applicable listing requirements or standards of The NASDAQ Capital Market and NASDAQ could delist our common stock.

Our common stock is listed on The NASDAQ Capital Market. In order to maintain that listing, we must satisfy minimum financial and other continued listing requirements and standards.

In the event that our common stock is not eligible for quotation on another market or exchange, trading of our common stock could be conducted in the over-the-counter market or on an electronic bulletin board established for unlisted securities such as the Pink Sheets or the OTC Bulletin Board. In such event, it could become more difficult to dispose of, or obtain accurate price quotations for, our common stock, and there would likely be a reduction in our coverage by security analysts and the news media, which could cause the price of our common stock to decline further. In addition, it may be difficult for us to raise additional capital if we are not listed on a major exchange.

Furthermore, it would be a fundamental change under the indentures governing the Convertible Notes if our common stock is not listed on a national securities exchange. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% of principal plus accrued and unpaid interest to, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes, to, but not including, the maturity date of such notes.

Previously, we have failed to maintain a minimum bid price of $1 per share as required by NASDAQ listing requirements. As a result, we asked our stockholders to approve reverse stock splits in 2015 and 2016 in order to increase our stock price above $1 per share to regain compliance with NASDAQ listing requirements. Stockholders approved the reverse stock splits in 2015 and 2016 which allowed us to comply with the minimum bid price of $1 per share NASDAQ listing requirement. As of March 9, 2017, the closing price of our common stock was $0.97. The inability to comply with all applicable listing requirements or standards of The NASDAQ Capital Market and NASDAQ could result in the delisting of our common which could have a material adverse effect on our financial condition and which could cause the value of our common stock to decline.

Our quarterly operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of investment research analysts or investors, which could cause our stock price to decline.

Our financial condition and operating results have varied significantly in the past and may continue to fluctuate from quarter to quarter and year to year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business

that may contribute to these fluctuations are described elsewhere in this report and other reports that we have filed with the SEC. Accordingly, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

The indebtedness under our 2017 Notes are secured by substantially all of our assets. As a result of these security interests, such assets would only be available to satisfy claims of our general creditors or to holders of our equity securities if we were to become insolvent to the extent the value of such assets exceeded the amount of our indebtedness and other obligations.

Indebtedness under our 2017 Notes is secured by a first lien, on substantially all of our assets. Accordingly, if an event of default were to occur under our credit facilities, holders of our 2017 Notes would have a priority right to our assets, to the exclusion of our general creditors, in the event of our bankruptcy, insolvency, liquidation, or reorganization. In that event, our assets would first be used to repay in full all indebtedness and other obligations secured by them, resulting in all or a portion of our assets being unavailable to satisfy the claims of our unsecured indebtedness. Only after satisfying the claims of our unsecured creditors and our subsidiaries' unsecured creditors would any amount be available for distribution to holders of our equity securities

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and the indentures governing the Convertible Notes, may restrict our ability to engage in certain transactions.

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and the indentures governing the Convertible Notes, may prohibit us from engaging in certain actions, including disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain kinds of additional indebtedness, acquiring or merging with other entities, or making dividends and other restricted payments unless we receive the prior approval of the requisite lenders or the requisite holders of the Convertible Notes. If we are unable to obtain such approval, we could be prohibited from engaging in transactions which could be beneficial to our business and our stockholders or could be forced to repay such indebtedness in full.

The indentures governing the Convertible Notes may prohibit us from engaging in certain mergers or acquisitions and if a fundamental change of the Company occurs prior to the maturity date of the Convertible Notes, holders of the Convertible Notes will have the right, at their option, to require us to repurchase all or a portion of their Convertible Notes and, in certain circumstances, to pay the holders of Convertible Notes a make-whole payment equal to the aggregate amount of interest that would have been payable on such Convertible Notes from the repurchase date through the maturity date of such Convertible Notes. With respect to the 2022 Notes, if a fundamental change occurs prior to the maturity date of the 2022 Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its 2022 Notes in connection with such fundamental change. With respect to the 2017 Notes, the Company has the right to increase the conversion rate of the 2017 Notes by any amount for a period of at least 20 business days if the Company's board of directors determines that such increase would be in the Company's best interest. In addition, if a fundamental transaction occurs, some holders of warrants will have the right, at their option, to require us to repurchase the unexercised portion of such warrants for an amount in cash equal to the value of the warrants, as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. These and other provisions could prevent or deter a third party from acquiring us, even where the acquisition could be beneficial to you.

The conversion or exercise prices, as applicable, of the Convertible Notes and warrants can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The conversion price of the 2022 Notes can fluctuate in certain circumstances, including in the event that we undertake certain stock dividends, splits, combinations or distributions, or if there is a fundamental change prior to the maturity date of the 2022 Notes. In such instances, the conversion price of the 2022 Notes can fluctuate materially lower than the current conversion price of $1,707.65 per share. The conversion price of the 2017 Notes can fluctuate in certain circumstances, including in the event that there is a dividend or distribution paid on shares of our common stock or a subdivision, combination or reclassification of our common stock. In such instances, the conversion price of the 2017 Notes can fluctuate materially lower than the current conversion price of $344.83 per share.

The number of shares of common stock for which certain of our warrants, are exercisable may be adjusted in the event that we undertake certain stock dividends, splits, combinations, distributions, and the price at which such shares of common stock may be purchased upon exercise of the warrants may be adjusted in the event that we undertake certain issuances of common stock or convertible securities at prices lower than the then-current exercise price for the warrants. These provisions could result in substantial dilution to investors in our common stock.

The interest rates of the Convertible Notes can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The interest rates of the Convertible Notes can fluctuate in certain circumstances, including in the event of a default of our obligations under the indentures governing the Convertible Notes or the registration rights agreements, if any, entered into in connection with such notes. In addition, the interest on the 2017 Notes will be payable 50% in cash and 50% in-kind if (i) no event of default has occurred and is continuing under the indentures governing the 2017 Notes and (ii) the last reported sales price of our common stock on the 10th trading day immediately preceding the relevant interest payment date is more than $330 per share. As the Company may be required to pay a portion of the interest on the 2017 Notes in kind, by either increasing the principal amount of the outstanding 2017 Notes or issuing additional 2017 Notes, any increase to the interest rate applicable to the 2017 Notes could result in additional dilution to investors in our common stock.

We may not have the ability to pay interest on the Convertible Notes or to repurchase or redeem the Convertible Notes.

If a fundamental change (as defined in the indentures governing the Convertible Notes) occurs, holders of the Convertible Notes may require us to repurchase, for cash, all or a portion of their Convertible Notes. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% of principal plus accrued and unpaid interest to, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes to, but not including, the maturity date of such notes. If we elect to redeem the Convertible Notes prior to their maturity, the redemption price of any Convertible Notes redeemed by us will be paid for in cash. Our ability to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes, to refinance our indebtedness and to fund working capital needs and planned capital expenditures depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes or to pay any cash amounts that may become due upon conversion of the Convertible Notes, or that our cash needs will not increase. In addition, any such repurchase or redemption of the Convertible Notes, even if such action would be in our best interests, may result in a default under the agreements governing our indebtedness unless we are able to obtain the applicable lender's consent prior to the taking of such action.

Our failure to repurchase tendered Convertible Notes at a time when the repurchase is required by the indenture governing such notes would constitute a default under such notes and would permit holders of such notes to accelerate our obligations under such notes. Such default may also lead to a default under the agreements governing any of our current and future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay such indebtedness and repurchase the Convertible Notes or make cash payments upon conversions thereof.

If we are unable to generate sufficient cash flow from operations in the future to service our indebtedness and meet our other needs, we may have to refinance all or a portion of our indebtedness, obtain additional funds through public or private debt or equity financings, reduce expenditures or sell assets that we deem necessary to our business. Our ability to take some or all of these actions will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox, and we cannot assure you that any of these measures would be possible or that any additional financing could be obtained on favorable terms, or at all. The inability to obtain additional financing on commercially reasonable terms could have a material adverse effect on our financial condition, which could cause the value of your investment to decline. Additionally, if we were to conduct a public or private offering of securities, any new offering would be likely to dilute our stockholders' equity ownership.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies.

We may, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox, seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale or issuance of equity, warrants or convertible debt securities, the ownership interest of our existing shareholders will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect their rights as a stockholder. If we raise capital through debt financing, it may involve agreements that include covenants further limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships or licensing agreements with third parties, we may have to relinquish valuable rights to our technologies, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our development and commercialization efforts.

The issuance of share-based payment awards under our stock incentive plan may cause dilution to our existing stockholders and may affect the market price of our common stock.

We have used, and in the future we may continue to use, stock options, stock grants and other equity-based incentives, either pursuant to the 2010 Plan, or outside of the 2010 Plan, to provide motivation and compensation to our directors, officers, employees and key independent consultants. The award of any such incentives will result in an immediate and potentially substantial dilution to our existing shareholders and could result in a decline in the value of our stock price.

As of December 31, 2016, there were 16,915 shares subject to outstanding options that are or will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements and Rules 144 and 701 under the Securities Act. The exercise of these options and the sale of the underlying shares of common stock and the sale of stock issued pursuant to stock grants may have an adverse effect upon the price of our common stock, which in turn may have an adverse effect upon the trading price of the warrants.

As of December 31, 2016, there were 160,873 shares of common stock available for future grant under our 2010 Plan and 3,802 shares of common stock reserved for issuance under our Employee Stock Purchase Plan. These shares can be freely sold in the public market upon issuance and once vested.

We may pay vendors in stock as consideration for their services; this may result in additional costs and may cause dilution to our existing stockholders.

In order for us to preserve our cash resources, we may in the future pay vendors, including technology partners, in shares, warrants or options to purchase shares of our common stock rather than cash. Payments for services in stock may materially and adversely affect our stockholders by diluting the value of outstanding shares of our common stock. In addition, in situations where we agree to register the shares issued to a vendor, this will generally cause us to incur additional expenses associated with such registration.

Except as set forth in the applicable warrant, holders of our warrants will have no rights as common stockholders until such holders exercise their warrants and acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, you will have no rights with respect to the shares of our common stock underlying such warrants, except for those rights set forth in the applicable warrant. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The exercise prices for our warrants will not be adjusted for all dilutive events.

The exercise prices of certain warrants are subject to adjustment for certain events, including the issuance of stock dividends on our common stock and, in certain instances, the issuance of our common stock at a price per share less than the exercise price of such warrants. However, the exercise prices will not be adjusted for other events, including the issuance of certain rights, options or warrants, distributions of capital stock, indebtedness, or assets and cash dividends. Accordingly, an event that adversely affects the value of the warrants may occur, and that event may not result in an adjustment to the exercise prices.

We may not be permitted by the agreements governing our indebtedness, including our secured indebtedness with Whitebox, to repurchase our warrants, and we may not have the ability to do so.

Under certain circumstances, if a “fundamental transaction” or “extraordinary transaction” (as such terms are defined in our various warrants) occurs, holders of our warrants may require us to repurchase, for cash, the remaining unexercised portion of such warrants for an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. Our ability to repurchase the warrants depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to repurchase the warrants. In addition, any such repurchase of the warrants may result in a default under the agreements governing our indebtedness, including our secured indebtedness with Whitebox, unless we are able to obtain such lender’s consent prior to the taking of such action. If we were unable to obtain such consent, compliance with the terms of the warrants would trigger an event of default under such agreements.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

We have never paid cash dividends on our common stock and we do not expect to pay cash dividends on our common stock at any time in the foreseeable future. The future payment of dividends directly depends upon our future earnings, capital requirements, financial requirements and other factors that our board of directors will consider. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline. The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business.

We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline which in turn would likely cause a decline in the value of the warrants and Convertible Notes. If one or more of these analysts cease coverage of the Company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price and the price of the warrants to decline or the trading volume of such securities to decline.

We are subject to anti-takeover provisions in our amended and restated certificate of incorporation, our amended and restated bylaws and under Delaware law that could delay or prevent an acquisition of the Company, even if the acquisition would be beneficial to our stockholders.

Provisions in our amended and restated certificate of incorporation and our amended and restated bylaws may delay or prevent an acquisition of the Company. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws provide for a board of directors that is divided into three classes with staggered three-year terms, provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and further provide that only our board of directors may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advance notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire the Company may be considered beneficial by some stockholders.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters and research and development laboratories, included in our Gevo, Inc. segment, are located in Englewood, Colorado. In January 2016, we amended our lease to extend the term until July 2021 and to reduce the amount of leased space from 29,865 square feet to approximately 19,241 square feet, effective July 2016. We believe that the facility with the reduced square footage will be adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

Our subsidiary, Agri-Energy, included in our Gevo Development/Agri-Energy segment, owns and operates an ethanol and isobutanol production facility in Luverne, Minnesota on approximately 55 acres of land and contains approximately 50,000 square feet of building space. The production facility was originally constructed in 1998. The land and buildings are owned by Agri-Energy, which granted to Whitebox a mortgage lien and security interest in such property to secure its obligations under Whitebox Notes Indenture.

Item 3. Legal Proceedings

From time to time, we have been and may again become involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any litigation that we believe to be material and we are not aware of any pending or

threatened litigation against us that we believe could have a material adverse effect on our business, operating results, financial condition or cash flows.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

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

The Company's common stock is listed on the NASDAQ Capital Market under the symbol 'GEVO'.

The following table sets forth, for the period indicated, the high and low sales prices for our common stock, as reported by the NASDAQ Stock Market, for the periods indicated below. The table below has been adjusted to reflect both the January 5, 2017 one-for-twenty and April 15, 2015 one-for-fifteen reverse stock splits.

	Common Stock			
	2016		2015	
	High	Low	High	Low
First Quarter	$ 13.33	$ 5.20	$ 104.99	$ 36.60
Second Quarter	19.19	4.46	109.20	40.20
Third Quarter	16.00	9.11	65.20	34.40
Fourth Quarter	9.63	3.46	44.20	12.20

Holders of Record

The last sale price of our common stock on March 27, 2017, as reported by the NASDAQ Capital Market, was $1.28 per share. As of March 27, 2017, there were approximately 30 holders of record of our common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our common stock is held of record through brokerage firms in "street name."

Dividends

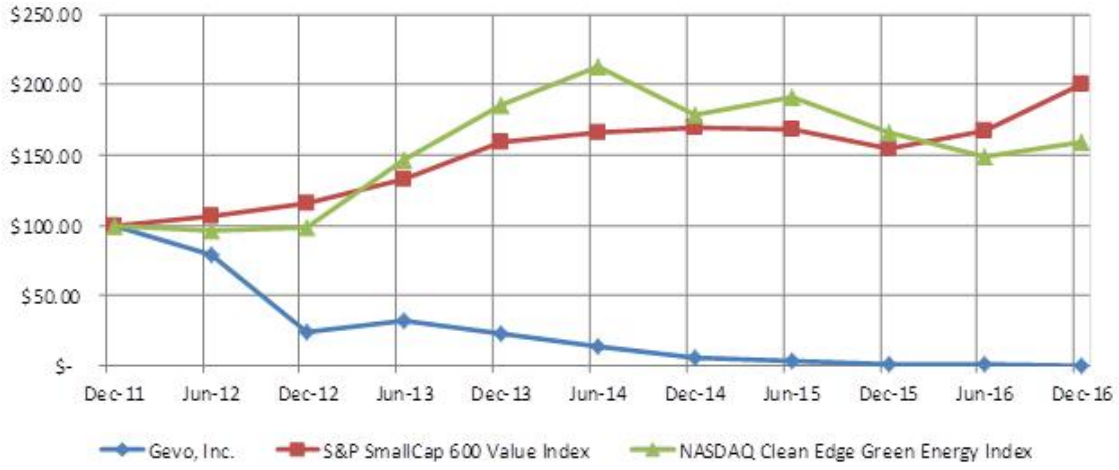
No cash dividends have been paid on our common stock to date, nor do we anticipate paying dividends in the foreseeable future. Any future determination to declare cash dividends on our common stock will be made at the discretion of our Board of Directors, subject to compliance and limitations under our debt arrangements.

Performance Graph

Set forth below is a graph comparing the annual change in the cumulative total return of Gevo's common stock with the cumulative total return of the Standard & Poor's SmallCap 600 Value Index and with the NASDAQ Clean Edge Green Energy Index over the period from the initiation of public trading of the Company's common stock in December 31, 2011 through December 31, 2016.

It is assumed in the graph that $100 was invested (i) in our common stock; (ii) in the stocks of the companies in the Standard & Poor's SmallCap 600 Value Index; and (iii) in the stocks of the NASDAQ Clean Edge Green Energy Index.

The stock price performance shown on the following graph is not indicative of future price performance



Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

Purchases of Equity Securities by the Issuer

None.

Item 6. Selected Financial Data

The following selected historical consolidated financial data should be read together with our consolidated financial statements and the accompanying notes appearing in Part II, Item 8 of this Report, and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The selected historical consolidated financial data in this section is not intended to replace our historical consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the consolidated statements of operations data for the years ended December 31, 2016, 2015, and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 from our audited consolidated financial statements in Part II, Item 8 of this Report. The consolidated statements of operations data for the years ended December 31, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 has been derived from our audited consolidated financial statements not included in this Report. The data should be read in conjunction with the consolidated financial statements, related notes, and other financial information included herein.

On December 21, 2016, the Board of Directors of the Company approved a reverse split of the Company's common stock, par value $0.01, at a ratio of one-for-twenty. This reverse stock split became effective on January 5, 2017 and, unless otherwise indicated, all share amounts, per share data, share prices, exercise prices and conversion rates set forth in these notes and the accompanying consolidated financial statements have, where applicable, been adjusted retroactively to reflect this reverse stock split.

(In thousands except share and per share amounts)	Years Ended December 31,				
Consolidated statement of operations data:	**2016**	**2015**	**2014**	**2013**	**2012**
Total revenue (1) (2) (3)	$ 27,213	$ 30,137	$ 28,266	$ 8,224	$ 24,385
Costs of goods and corn sold	37,017	38,762	35,582	17,913	32,410
Operating expenses	14,181	23,302	32,461	45,826	63,412
Loss from operations	(23,985)	(31,927)	(39,777)	(55,515)	(71,437)
Net loss (4) (5) (6) (7) (8) (9)	(37,228)	(36,194)	(41,145)	(66,806)	(60,712)
Net loss per share - basic and diluted	(9.68)	(51.61)	(153.35)	(444.67)	(558.37)
Weighted-average number of common shares outstanding - basic and diluted	3,847,421	701,252	268,308	150,239	108,730

	As of December 31,				
Consolidated balance sheet data:	**2016**	**2015**	**2014**	**2013**	**2012**
Cash and cash equivalents	$ 27,888	$ 17,031	$ 6,359	$ 24,625	$ 66,744
Total assets	112,324	102,831	98,928	116,355	156,111
Derivative warrant liability	2,698	10,493	3,114	7,243	-
Secured debt	-	483	773	10,127	23,958
2017 notes recorded at fair value	25,769	21,565	25,460	-	-
2022 notes, net	8,221	14,341	13,679	14,501	25,554
Total liabilities	43,060	54,505	51,964	45,380	58,280
Accumulated deficit	(376,720)	(339,492)	(303,298)	(262,153)	(195,347)
Total stockholders' equity	69,264	48,326	46,964	70,975	97,831

(1) During the second quarter of 2012, we suspended the production of ethanol and commenced initial startup operations for the production of isobutanol. In September 2012, as a result of a lower than planned production rate of isobutanol, we made the strategic decision to pause isobutanol and ethanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates.

(2) Throughout 2013, we made modifications to our Agri-Energy Facility designed to increase the isobutanol production rates. As a result, we produced very limited quantities of isobutanol and no ethanol at the Agri-Energy Facility in 2013.

(3) In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility in order to enable the simultaneous production of isobutanol and ethanol, and in July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production.

(4) We recognized gains of $0.0 million, $0.0 million, $3.5 million, and $3.1 million during the years ended December 31, 2016 2015, 2014, and 2013, respectively, associated with a change in the fair value of the derivatives embedded in our 2022 Notes.

(5) We recognized gains of $1.8 million, $0.6 million and $6.5 million during the years ended December 31, 2016, 2015 and 2014, respectively, and a loss of $3.2 million during the year ended December 31, 2013 associated with a change in the fair value of Warrants to purchase our common stock that were issued in September 2016, April 2016, December 2015, May 2015, February 2015, August 2014, and December 2013 in conjunction with our offering of common stock units.

(6) We recognized a loss of $4.2 million during the year ended December 31, 2016 and gains of $3.9 million and $0.6 million during the years ended December 31, 2015 and 2014, respectively, associated with a change in the fair value of the 2017 Notes.

(7) We recognized a loss of $0.8 million during the year ended December 31, 2016, a gain of $0.2 million during the year ended December 31, 2015 and a loss of $2.0 million during the year ended December 31, 2013 associated with the exchange or conversion of our 2022 Notes.

(8) We recognized a loss of $0.9 million during the year ended December 31, 2016 and a gain of $1.8 million during the year ended December 31, 2015 associated with the extinguishment of certain of our warrant liabilities.

(9) We recognized losses of $1.5 million and $2.5 million during the years ended December 31, 2016 and 2015, respectively, associated with issuances of equity in those years.

The following table reflects our unaudited summarized quarterly consolidated financial statements for each of the twelve months ended December 31, 2016 and 2015. This information has been derived from unaudited consolidated financial statements that, in the opinion of management, include all recurring adjustments necessary for a fair statement of such information (in thousands except share and per share amounts).

	Quarter			
2016	**First**	**Second**	**Third**	**Fourth**
Revenue	$ 6,320	$ 8,113	$ 6,944	$ 5,836
Gross loss	(2,903)	(1,876)	(2,706)	(2,319)
Loss from operations (1)	(5,866)	(5,492)	(6,135)	(6,492)
Gain (Loss) from change in fair value of derivative warrant liability	5,248	(10,573)	1,154	5,954
Gain (Loss) from change in fair value of 2017 Notes	(836)	(940)	(1,854)	(573)
Net loss	(3,605)	(21,487)	(9,849)	(2,287)
Net loss per share - basic and diluted	$ (3.13)	$ (8.75)	$ (2.04)	$ (0.33)
Weighted-average number of common shares outstanding - basic and diluted	1,150,816	2,454,282	4,837,698	6,840,316

	Quarter			
2015	**First**	**Second**	**Third**	**Fourth**
Revenue	$ 5,899	$ 8,924	$ 8,017	$ 7,297
Gross loss	(3,335)	(974)	(2,612)	(1,704)
Loss from operations (1)	(9,536)	(6,531)	(9,274)	(6,586)
Gain (Loss) from change in fair value of derivative warrant liability	167	(7,247)	4,719	2,938
Gain (Loss) from change in fair value of 2017 Notes	3,765	(340)	157	313
Net loss	(7,343)	(14,370)	(6,519)	(7,962)
Net loss per share - basic and diluted	$ (17.67)	$ (22.09)	$ (7.81)	$ (8.87)
Weighted-average number of common shares outstanding - basic and diluted	415,620	650,472	834,432	897,723

(1) Loss from operations during 2016 and 2015 primarily relates to costs associated with conducting research and development, business development, business and financial planning, continued improvement of facilities and operations for the co-production of isobutanol and ethanol at the Agri-Energy Facility.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes that appear elsewhere in this Annual Report on Form 10-K (this "Report"). In addition to historical financial information, the following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Report, particularly in "Risk Factors."

Overview

We are a renewable chemicals and next generation biofuels company. We have developed proprietary technology that uses a combination of synthetic biology, metabolic engineering, chemistry and chemical engineering to focus primarily on the production of renewable isobutanol as well as related products from renewable feedstocks. Isobutanol is a four-carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints and coatings or as a value-added gasoline blendstock. Isobutanol can also be converted into butenes using dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of hydrocarbon fuels, including isooctane, isooctene and alcohol-to-jet fuel ("ATJ"), as well as lubricants, polyester, rubber, plastics, fibers and other polymers. We believe that the products derived from isobutanol have potential applications in substantially all of the global hydrocarbon fuels markets and in approximately 40% of the global petrochemicals markets.

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology® ("GIFT®"), an integrated technology platform for the efficient production and separation of renewable isobutanol. GIFT® consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be compatible with the existing approximately 25 BGPY of global operating ethanol production capacity, as estimated by the Renewable Fuels Association.

GIFT® is designed to permit (i) the retrofit of existing ethanol capacity to produce isobutanol, ethanol or both products simultaneously or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility's existing ethanol production by adding additional fermentation capacity side-by-side with the facility's existing ethanol fermentation capacity (collectively referred to as "Retrofit"). Having the flexibility to switch between the production of isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT® is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a relatively rapid route to isobutanol production from the fermentation of renewable feedstocks. Alternatively, GIFT® can be deployed at a greenfield or brownfield site to produce isobutanol only. We believe that our production route will be cost-efficient, will enable relatively rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

2016 Highlights and Developments

- In February 2016, we announced that we had entered into a license agreement and a joint development agreement with Porta Hnos S.A. ("Porta") to construct multiple isobutanol plants in Argentina using corn as a feedstock.
- In April 2016, we issued and sold 186,071 shares of common stock, Series F warrants to purchase an additional 514,644 shares of common stock (the "Series F Warrants"), Series G warrants to purchase an additional 328,571 shares of common stock (the "Series G Warrants") and Series H warrants to purchase an additional 1,029,286 shares of common stock (the "Series H Warrants"). As of December 31, 2016, the Series F Warrants had an exercise price of $5.80 per share, were exercisable from the date of issuance and expire on April 1, 2021. The Series G Warrants were fully exercised in the second quarter of 2016. The Series H Warrants expired on October 1, 2016. We received gross proceeds of approximately $3.5 million, not including any future proceeds from exercise of the warrants.
- In April 2016, we received notice that ASTM International completed its process of approving the revision of ASTM D7566 (Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons) to include alcohol to jet synthetic paraffinic kerosene (ATJ-SPK) derived from renewable isobutanol. As a result, ASTM International has published the revision of ASTM D7566 on its website and Gevo's renewable alcohol to jet fuel ("ATJ") is now eligible to be used as a blending component in standard Jet A-1 for commercial airline use in the United States and in many other countries around the globe. Gevo's ATJ is eligible to be used for up to 30% blend in conventional jet fuel for commercial flights.
- In June 2016, we closed a best efforts public offering of approximately 1,054,023 shares of common stock at $9.00 per share. We received gross proceeds from this offering of approximately $9.5 million.

- In June 2016, we announced that we entered into an agreement with Musket Corporation (“Musket”) to supply isobutanol for blending with gasoline. Musket is a national fuel distributor under the umbrella of the Love’s Family of Companies. In November 2016, we announced that we had entered the on-road automobile gasoline market in Houston in partnership with Musket. This marked the first time that our isobutanol had been specifically targeted towards on-road vehicles, a much larger market opportunity for isobutanol than specialty markets.
- In September 2016, we announced that we had entered into a heads of agreement with Deutsche Lufthansa AG (“Lufthansa”) to supply Gevo’s ATJ fuel from its first commercial hydrocarbons facility, intended to be built in Luverne, Minnesota (the “Heads of Agreement”). The Heads of Agreement is non-binding and is subject to completion of a binding off-take agreement and other definitive documentation between Gevo and Lufthansa.
- In September 2016, we entered into private exchange agreements with holders of our 7.5% convertible senior notes due 2022 (the “2022 Notes”), to exchange an aggregate of $11.4 million of principal amount of 2022 Notes for an aggregate of 699,968 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $11.0 million.
- In September 2016, we issued and sold 1,240,000 shares of common stock, Series I warrants to purchase an additional 712,503 shares of common stock (the “Series I Warrants”) and Series J warrants to purchase an additional 185,000 shares of common stock (the “Series J Warrants”), pursuant to an underwritten public offering. As of December 31, 2016, the Series I Warrants had an exercise price of $11.00 per share, were exercisable from the date of issuance and expire on September 13, 2021. The Series J Warrants were fully exercised in the third quarter of 2016. We received gross proceeds of approximately $15.6 million, not including any future proceeds from the exercise of the warrants.
- In September 2016, we voluntarily paid off in full all outstanding amounts owed under the Amended Agri-Energy Loan Agreement with TriplePoint Capital LLC (“TriplePoint”) and all material commitments and obligations under the Loan and Security Agreement and associated documents were terminated. As a result, the Amended Agri-Energy Loan Agreement now has a principal balance of zero. In connection with the repayment, TriplePoint terminated all of its security interests under the Loan and Security Agreement (including any mortgages and membership interest pledges). In addition, the guaranties by the Company and Gevo Development of the obligations under the Loan and Security Agreement were also terminated.
- In December 2016, we entered into private exchange agreements with holders of our 7.5% convertible 2022 Notes to exchange an aggregate of $1.4 million of principal amount of 2022 Notes for an aggregate of 251,832 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $9.6 million.

Subsequent Events

- In February 2017, we sold 5,680,000 Series G units, with each Series G unit consisting of one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.90 per Series G unit. We also sold 570,000 Series H units, with each Series H unit consisting of a pre-funded Series L warrant to purchase one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.89 per Series H unit. The Series K warrants have an exercise price of $2.35 per share, are exercisable beginning the date of original issuance and will expire on February 17, 2022. The Series L warrants have an exercise price of $1.90 per share, which are pre-paid upon issuance, except for a nominal exercise price of $0.01 per share and, consequently, no additional payment or other consideration (other than the nominal exercise price of $0.01 per share) will be required to be delivered to us by the holder upon exercise of the Series L warrants. The Series L warrants will be exercisable from the date of original issuance and will expire on February 17, 2018. The Series M warrants will have an exercise price of $2.35 per share, are exercisable beginning on the date of original issuance and will expire on November 17, 2017. The shares of common stock and the warrants are immediately separable and were issued separately. The gross proceeds to us from this offering were approximately $11.9 million, not including any future proceeds from the exercise of the warrants.
- On February 23, 2017, we paid down the principal balance on the 2017 Notes with 15% of the net proceeds from the offering referred to immediately above, along with the $8.0 million in prepayments under the supplemental indenture, for an aggregate total payment of $9.6 million, which reduced the principal balance on the 2017 Notes to approximately $16.5 million.
- In January 2017, we entered into private exchange agreements with holders of our 7.5% convertible 2022 Notes to exchange an aggregate of $8.4 million of principal amount of 2022 Notes for an aggregate of 2,155,382 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $1.2 million.
- Effective January 5, 2017, we effected a one-for-twenty reverse split of the Company’s issued and outstanding common stock (the “Reverse Stock Split”). Upon the effectiveness of the stock split, every twenty shares of the Company’s common stock

issued and outstanding were automatically combined into one share of common stock, without any change in the par value per share.

- In January 2017, the Company received notice from The NASDAQ Stock Market LLC that effective January 20, 2017 it had regained compliance with the NASDAQ Capital Market's minimum bid price continued listing requirement of at least ten consecutive days with a closing bid price of its common stock in excess of $1.00.

Financial Condition

For the year ended December 31, 2016, we incurred a consolidated net loss of $37.2 million and had an accumulated deficit of $376.7 million. Our cash and cash equivalents at December 31, 2016 totaled $27.9 million which is primarily being used for the following: (i) operating activities of our Agri-Energy Facility; (ii) operating activities at our corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with the Agri-Energy Facility, including increasing isobutanol production and adding capacity to produce renewable hydrocarbons; (iv) costs associated with optimizing isobutanol production technology; and (v) debt service obligations.

We expect to incur future net losses as we continue to fund the development and commercialization of our products and product candidates. We have financed our operations primarily with proceeds from multiple sales of equity and debt securities, borrowings under debt facilities and product sales. Based on our current operating plan, existing working capital at December 31, 2016 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date our 2016 financial statements are issued unless we are able to restructure and extend our debt obligations and/or raise additional capital to fund operations. These conditions raise substantial doubt about our ability to continue as a going concern. Our inability to continue as a going concern may potentially affect our rights and obligations under our debt obligations**.**

Our transition to profitability is dependent upon, among other things, the successful development and commercialization of our products and product candidates and the achievement of a level of revenues adequate to support our cost structure. We may never achieve profitability or generate positive cash flows, and unless and until we do, we will continue to need to raise additional cash. We intend to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, we may seek additional capital through arrangements with strategic partners or from other sources, may seek to restructure our debt and we will continue to address our cost structure. Notwithstanding, there can be no assurance that we will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations.

We have primarily relied on raising capital to fund our operations and debt service obligations by issuing common stock and warrants in underwritten public offerings. Those issuances have caused significant dilution to our existing stockholders. While we have sought, and will continue to seek, other, less dilutive forms financing to fund our operations and debt service obligations, there is no assurance that we will be successful in doing so.

2017 Notes Restructuring Update

As previously announced, WB Gevo, Ltd. ("Whitebox"), the holder of our issued and outstanding 2017 Notes, and the Company agreed to extend the maturity date of the 2017 Notes from March 15, 2017 to June 23, 2017 (the "2017 Notes Extension Transaction").

Pursuant to the terms of a supplemental indenture, the terms of the 2017 Notes Extension Transaction include, among other things, the following: (i) an increase in the coupon on the 2017 Notes by two percent (2%) to twelve percent (12%); and (ii) the requirement that we pay down $8 million of principal on the 2017 Notes as follows: $2 million on each of March 13, 2017, April 13, 2017, May 12, 2017 and June 13, 2017, with an option for us to prepay all $8 million at any time in our sole discretion.

In addition, as part of the 2017 Notes Extension Transaction, we agreed to pay Whitebox fifteen percent (15%) of the net proceeds from our next underwritten public offering, completed prior to June 23, 2017, and to be used to reduce the then-outstanding principal of the 2017 Notes, which would be in addition to the $8 million pay-down of the 2017 Notes described above.

On February 23, 2017, we paid Whitebox $9.6 million in full satisfaction of the 2017 Notes Extension Transaction obligations described above.

We continue to engage in discussions with Whitebox to reach a long-term restructuring solution with respect to the 2017 Notes due June 23, 2017 and that will allow us to execute our long-term strategy and business plan described below. There can be no assurances, however, that we will be able to enter into a definitive binding agreement with Whitebox that will allow us extend the maturity of the 2017 Notes or otherwise successfully restructure the debt represented by the 2017 Notes. Any default under such indebtedness could have a material adverse effect on our business, financial condition and results of operations.

Lufthansa Update

As previously disclosed, in September 2016, we entered into the Heads of Agreement with Lufthansa in September 2016. The terms of the Heads of Agreement contemplate Lufthansa purchasing up to 8 million gallons per year of ATJ fuel or up to 40 million gallons over the 5-year life of the proposed off-take agreement. The Heads of Agreement established a selling price that is expected to allow for an appropriate level of return on the capital required to build-out our first commercial scale hydrocarbons facility. The Heads of Agreement is non-binding and is subject to completion of a binding off-take agreement and other definitive documentation between Gevo and Lufthansa (collectively, the "Definitive Agreement").

At the time we entered into the Heads of Agreement with Lufthansa, we expected to complete the Definitive Agreement within a few months. The delay in finalizing the definitive documentation is primarily due to Lufthansa's desire to gain better clarity around (i) our expected timing for commencing the expansion of our production facility in Luverne, Minnesota (the "Agri-Energy Facility") to produce the ATJ contemplated by the Heads of Agreement, (ii) the ultimate production mix to be produced at the expanded Agri-Energy Facility, as well as the other customers who will offtake such production, (iii) completion of the repayment or restructuring of our debt obligations and (iv) the supply chain specifics to enable the delivery of ATJ from the Agri-Energy Facility to the wing of an airplane at an airport.

There can be no assurances that we will ever enter into a definitive binding agreement with Lufthansa reflecting the terms of the Heads of Agreement or have the ability to finance and successfully complete the build out of a commercial hydrocarbon facility and increase production of ATJ contemplated by the Heads of Agreement.

Hydrocarbons Production, Sales and Inventory

As previously announced, we produced approximately 440,000 gallons of isobutanol at our Agri-Energy Facility during 2016, a record amount for Gevo. During 2016, we sold the equivalent of approximately 200,000 gallons of isobutanol, either directly as isobutanol or as renewable hydrocarbons (jet fuel, isooctane and isooctene). At December 31, 2016, we had approximately 200,000 gallons of isobutanol and approximately 40,000 gallons of renewable hydrocarbons in inventory.

In prior years, almost all of our isobutanol production from the Agri-Energy Facility had been dedicated to supplying our hydrocarbons demo facility located in Silsbee, TX, to ensure that we could satisfy certain contractual obligations with customers for the supply of ATJ, isooctane, isooctene and para-xlyene. Last year was the first year that we produced isobutanol at volumes large enough to not only provide the necessary feedstock for our hydrocarbons demo facility, but also to provide sufficient product to sell meaningful quantities of isobutanol directly into the marketplace. As a result, last year represented the first year that we were able to boost our market development efforts for our isobutanol, in particular, in respect to certain of our core gasoline blendstock markets such as marinas and on-road gasoline fueling stations. We believe that gasoline end users such as boat owners and car owners are interested in purchasing isobutanol containing gasoline because of the improved properties compared to ethanol containing gasoline. Gaining market acceptance for our isobutanol, while maintaining our targeted selling price, requires distribution partners to make certain investments to develop end-customer relationships, as well as to establish value chains to deliver our isobutanol to those end-customers. These partners are generally willing to make such investments only after being convinced that we will be able to reliably supply volumes sufficient to meet their end-customer demand. We believe that our production of 440,000 gallons in 2016, coupled with achieving our production target of 500,000 gallons in 2017, should be helpful in providing the evidence necessary to allow certain of our distribution partners to make the downstream investments required to increase overall demand for our product. We believe that this will result in increased sales and revenue from isobutanol in the future.

As we increase our isobutanol production levels at our Agri-Energy Facility, there will likely be a mismatch in timing between isobutanol production and sales. As a result, at times we will likely build isobutanol inventory levels. Currently, our alcohol storage capacity is limited at our Agri-Energy Facility, and our isobutanol inventory, together with our ethanol inventory, may exceed such storage capacity. This will cause us to seek other forms of storage, such as railcars, customer sites or investing in additional storage capabilities.

Outlook for 2017

We have established the following specific operational and financial targets and milestones for 2017:

- Restructure our balance sheet in a manner that addresses the $17.7 million of debt represented by our outstanding convertible notes and that allows us to execute on our long-term strategy and business development plan.
- Obtain binding supply contracts for a combination of isobutanol and related hydrocarbon products equal to at least fifty percent (50%) of the capacity of the expanded Agri-Energy Facility that we plan to construct.

- Gevo estimates that its maximum annual isobutanol production capacity at the Agri-Energy Facility to be currently over 1 million gallons per year. As described below, however, Gevo expects to produce isobutanol at levels that better match market development sales in 2017. As such, Gevo expects to produce approximately 500,000 gallons of isobutanol during 2017.
- Achieve a corporate-wide EBITDA burn rate (excluding stock-based compensation) of $18.0 - $20.0 million for the fiscal year ending December 31, 2017.

Market Development Sales and Production Strategy for 2017

We believe that during 2016 we demonstrated our ability to produce isobutanol in commercial quantities on a consistent and repeatable basis. For 2017, our overarching goal is to leverage our isobutanol production of 440,000 gallons in 2016 and our projected isobutanol production of 500,000 gallons in 2017, to more fully develop the markets for our isobutanol and related hydrocarbon products. Ultimately, our primary target is to enter into binding supply contracts for isobutanol and related hydrocarbon products that represents the majority of the isobutanol production volumes to be produced at the expanded Agri-Energy Facility that we plan to construct (the "Agri-Energy Facility Expansion"). We believe that such contracts would underpin the economics of the Agri-Energy Facility Expansion, which should facilitate the raising of the capital necessary to finance the Agri-Energy Facility Expansion, potentially at a lower cost of capital than what we have historically achieved through the issuance of common stock and warrants in underwritten public offerings.

In addition, we intend to further develop the market for isobutanol-blended gasoline in 2017. We expect to benefit from our market development efforts in the marina market in 2016, by increasing the number of marina outlets which carry gasoline blends containing our isobutanol. In 2017, we expect to benefit, for the first time, from active sales efforts throughout the entire boating season, traditionally a very seasonal market. In terms of development for the on-road market, we are looking to increase the number of geographic regions which carry our isobutanol. In 2016, we announced that gasoline blended with our isobutanol and marketed for use in automobiles had begun to be sold in the Houston area through our partner, Musket. This marked the first time that Gevo's isobutanol has been specifically targeted towards on-road vehicles. In 2017, we expect to expand our sales into other regions of the Southwest U.S., as well as potentially into the Midwest and Northeast of the U.S.

In terms of isobutanol production, we anticipate trying to produce sufficient quantities to meet customer demand in 2017 while also providing enough inventory to support additional market and customer development efforts in the future. In addition, while we have driven the variable cost of isobutanol production down, at our current production scale, we are unable to absorb all of our fixed costs of production, and as a result, our burn rate goes up when we produce our isobutanol. Therefore our production goals will not be to maximize production, but rather to align such production with our isobutanol sales efforts. Our alcohol storage capacity is limited at our Agri-Energy Facility, and any excess isobutanol inventory which we build up will simply tie up some portion of our cash in working capital. Therefore, during certain periods of 2017, we may cease isobutanol production at the Agri Energy Facility and produce ethanol only over such periods.

Agri-Energy Facility Expansion

We believe that the current configuration of the Agri Energy Facility, whereby we co-produce isobutanol and ethanol utilizing one fermenter for isobutanol production and three fermenters for ethanol production, will not enable us to become profitable on a consolidated basis. We believe that the best way for us to become profitable is to undertake the Agri-Energy Facility Expansion, whereby we would convert the Agri Energy Facility to the sole production of isobutanol, with some percentage of such isobutanol volumes to be further processed into hydrocarbons such as ATJ and isooctane. The Agri Energy Facility represents the best site to expand our isobutanol production because it leverages the equipment we have already installed at the site, in particular our GIFT® technology system.

We are currently conducting engineering work to determine the potential production capacity of the Agri Energy Facility following the Agri-Energy Facility Expansion, as well as the capital cost associated with the project. The binding supply contracts, which we anticipate signing in 2017, are expected to form the basis on which we would set the specific configuration of the plant in terms of end product mix between isobutanol, ATJ and isooctane. Once this engineering work is completed, which we expect will be in the second half of 2017, we expect to be able to communicate publicly the estimated scale, configuration and capital cost for the Agri-Energy Facility Expansion.

Results of Operations

Comparison of the years ended December 31, 2016 and 2015 (in thousands)

	Years Ended December 31,		
	2016	**2015**	**Change**
Revenue and cost of goods sold			
Ethanol sales and related products, net	$ 24,613	$ 27,125	$ (2,512)
Hydrocarbon revenue	1,929	1,694	235
Grant and other revenue	671	1,318	(647)
Total revenues	27,213	30,137	(2,924)
Cost of goods sold	37,017	38,762	(1,745)
Gross loss	(9,804)	(8,625)	(1,179)
Operating expenses			
Research and development expense	5,216	6,610	(1,394)
Selling, general and administrative expense	8,965	16,692	(7,727)
Total operating expenses	14,181	23,302	(9,121)
Loss from operations	(23,985)	(31,927)	7,942
Other (expense) income			
Interest expense	(7,837)	(8,243)	406
Gain (Loss) on exchange or conversion of debt	(763)	232	(995)
Gain (Loss) on extinguishment of warrant liability	(918)	1,775	(2,693)
Gain from change in fair value of derivative warrant liability	1,783	577	1,206
Gain (Loss) from change in fair value of 2017 Notes	(4,204)	3,895	(8,099)
Loss on issuance of equity	(1,519)	(2,523)	1,004
Other income	215	20	195
Total other (expense) income	(13,243)	(4,267)	(8,976)
Net loss	$ (37,228)	$ (36,194)	$ (1,034)

Revenues. During the twelve months ended December 31, 2016, we recognized revenue of $24.6 million associated with the sale of 14.2 million gallons of ethanol, as well as isobutanol and related products, a decrease of $2.5 million from the twelve months ended December 31, 2015 primarily related to decreased production at the Agri-Energy Facility. Hydrocarbon revenue increased during the twelve months ended December 31, 2016 primarily as a result of increased shipments of isooctane and isooctene during the year.

Cost of goods sold. Our cost of goods sold during the twelve months ended December 31, 2016 included $31.0 million associated with the production of ethanol, isobutanol and related products and $6.0 million in depreciation expense. Cost of goods sold decreased during the twelve months ended December 31, 2016 primarily due to decreased production of ethanol as compared to the prior year.

Research and development expense. Research and development expenses decreased during the twelve months ended December 31, 2016 primarily due to a $1.3 million decrease in employee compensation expense.

Selling, general and administrative expense. The decrease in selling, general and administrative expenses during the twelve months ended December 31, 2016 primarily resulted from decreases of $1.5 million employee compensation expense, $6.9 million in professional and legal expenses, partially offset by an increase in $0.6 million in other general expenses, including costs associated with restructuring of the Company's debt obligations.

Gain / (Loss) on exchange or conversion of debt. During the twelve months ended December 31, 2016, we incurred a loss of $0.8 million resulting from the exchange of a portion of our 2022 Notes for our common stock.

Loss on extinguishment of warrant liability. During the twelve months ended December 31, 2016, we incurred a loss of $0.9 million resulting from exercises of warrants to purchase our common stock. This is the result of the fair value of the derivative warrant liability for the warrants and the cash received being less than the fair value of the shares issued upon exercise.

Gain (loss) from change in fair value of derivative warrant liability. In December 2013, August 2014, February 2015, May 2015, December 2015, April 2016 and September 2016, we issued warrants to purchase our common stock which are recorded at fair value each reporting period. During the twelve months ended December 31, 2016, the estimated fair value of the derivative warrant liability decreased primarily due to a decline in the price of our common stock, and as a result, the Company reported a $1.8 million gain for 2016.

Gain (Loss) from change in fair value of the 2017 Notes. During the twelve months ended December 31, 2016, we reported a $4.2 million loss associated with the increase in fair value of the 2017 Notes, primarily as a result of the decrease in the time to maturity during the twelve-months-ended December 31, 2016.

Loss on issuance of equity. During the twelve months ended December 31, 2016, we reported a $1.5 million loss associated with the April 2016 equity issuance primarily as a result of the estimated fair value of the common stock and warrants issued being greater than the consideration received in exchange.

Comparison of the years ended December 31, 2015 and 2014 (in thousands)

	Years Ended December 31,		
	2015	**2014**	**Change**
Revenue and cost of goods sold			
Ethanol sales and related products, net	$ 27,125	$ 23,549	$ 3,576
Hydrocarbon revenue	1,694	3,949	(2,255)
Grant and other revenue	1,318	768	550
Total revenues	30,137	28,266	1,871
Cost of goods sold	38,762	35,582	3,180
Gross loss	(8,625)	(7,316)	(1,309)
Operating expenses			
Research and development expense	6,610	14,120	(7,510)
Selling, general and administrative expense	16,692	18,341	(1,649)
Total operating expenses	23,302	32,461	(9,159)
Loss from operations	(31,927)	(39,777)	7,850
Other (expense) income			
Interest expense	(8,243)	(8,255)	12
Interest expense - debt issue costs	-	(3,769)	3,769
Gain (Loss) on exchange or conversion of debt	232	-	232
Gain (Loss) on extinguishment of warrant liability	1,775	-	1,775
Gain (Loss) from change in fair value of embedded derivative of the 2022 Notes	-	3,470	(3,470)
Gain (loss) from change in fair value of derivative warrant liability	577	6,530	(5,953)
Gain (Loss) from change in fair value of 2017 Notes	3,895	648	3,247
Loss on issuance of equity	(2,523)	-	(2,523)
Other income	20	8	12
Total other (expense) income	(4,267)	(1,368)	(2,899)
Net loss	$ (36,194)	$ (41,145)	$ 4,951

Revenues. During the twelve months ended December 31, 2015, we recognized revenue of $27.1 million associated with the sale of 15.1 million gallons of ethanol, as well as isobutanol and related products, an increase in revenue of $3.6 million from the twelve months ended December 31, 2014 primarily related to increased production at the Agri-Energy Facility. Hydrocarbon revenue

decreased during the twelve months ended December 31, 2015 primarily as a result of the shipment of bio-PX ("bio-PX") to Toray Industries in May 2014 for which we recognized $1.5 million of revenue. Additional decreases in hydrocarbon revenue are a result of a temporary halt in production at our demonstration plant located at the South Hampton facility while we renegotiated our contract with South Hampton.

Cost of goods sold. Our cost of goods sold during the twelve months ended December 31, 2015 included $33.1 million associated with the production of ethanol, isobutanol and related products and $5.7 million in depreciation expense. Cost of goods sold increased during the twelve months ended December 31, 2015 primarily due to increased production of ethanol as compared to the prior year.

Research and development expense. Research and development expenses decreased during the twelve months ended December 31, 2015 primarily due to a $4.1 million decrease related to a reduction in the number of employees, decreased expenditures for consultants and contract staff, a $1.7 million decrease in costs related to the South Hampton facility, and a $1.3 million decrease in lab consumables.

Selling, general and administrative expense. The decrease in selling, general and administrative expenses during the twelve months ended December 31, 2015 primarily resulted from decreases of $1.4 million in professional and legal expenses.

Gain / (Loss) on exchange or conversion of debt. During the twelve months ended December 31, 2015, we incurred a gain of $0.2 million resulting from the exchange or conversion of a portion of our 2022 Notes into our common stock.

Gain on extinguishment of warrant liability. During the twelve months ended December 31, 2015, we incurred gains of $1.8 million resulting from inducement payments made in connection with exercises of warrants to purchase our common stock that were issued in 2013 and 2014. This is the result of the fair value of the derivative warrant liability for the 2013 and 2014 warrants and the cash received being greater than the fair value of the shares issued upon exercise.

Gain from change in fair value of embedded derivative within the 2022 Notes. During the twelve months ended December 31, 2014, we reported a $3.5 million gain associated with the decrease in fair value of the notes issued in the July 2012 offering of the 2022 Notes, primarily a result of a decrease in the price of our common stock during that period. There was no gain or loss recorded in 2015 as the derivatives have had no meaningful value since the third quarter of 2014.

Gain (loss) from change in fair value of derivative warrant liability. In December 2013, August 2014, February 2015, May 2015 and December 2015, we issued warrants to purchase our common stock which are recorded at fair value each reporting period. During the twelve months ended December 31, 2015, the estimated fair value of the derivative warrant liability increased primarily associated with additional warrant issuances that occurred from December 31, 2014 to December 31, 2015 and the exercise of warrants during that period. As a result, the Company reported a $0.6 million gain during the twelve months ended December 31, 2015.

Gain from change in fair value of the 2017 Notes. During the twelve months ended December 31, 2015, we reported a $3.9 million gain associated with the decrease in fair value of the 2017 Notes, primarily as a result of a decrease in the price of our common stock from December 31, 2014 to December 31, 2015.

Loss on issuance of equity. During the twelve months ended December 31, 2015, we reported a $2.5 million loss associated with the December 2015 equity issuance primarily as a result of the estimated fair value of the common stock and warrants issued being greater than the consideration received in exchange.

Revenues, Cost of Goods Sold and Operating Expenses

Revenues

During 2016, 2015 and 2014, we generated revenue primarily from: (i) the sale of ethanol, isobutanol and related products; (ii) hydrocarbon sales consisting primarily of the sale of biojet fuel, isooctane and bio-PX derived from our isobutanol for purposes of certification and testing; and (iii) government grants and research and development programs.

Cost of Goods Sold and Gross Loss

Our cost of goods sold during the years ended December 31, 2016, 2015 and 2014 primarily includes costs directly associated with ethanol production and initial operations for the production of isobutanol at the Agri-Energy Facility such as costs for direct materials, direct labor, depreciation, other operating costs and certain plant overhead costs. Direct materials include corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in production operations at the Agri-Energy Facility. Other operating costs include utilities and natural gas usage.

Our gross loss is defined as our total revenues less our cost of goods sold.

Research and Development

Our research and development costs consist of expenses incurred to identify, develop and test our technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expenses include personnel costs (including stock-based compensation), consultants and related contract research, facility costs, supplies, depreciation and amortization expense on property, plant and equipment used in product development, license fees paid to third parties for use of their intellectual property and patent rights and other overhead expenses incurred to support our research and development programs. Research and development expenses also include upfront fees and milestone payments made under licensing agreements and payments for sponsored research and university research gifts to support research at academic institutions.

Selling, General and Administrative

Selling, general and administrative expenses consist of personnel costs (including stock-based compensation), consulting and service provider expenses (including patent counsel-related costs), legal fees, marketing costs, corporate insurance costs, occupancy-related costs, depreciation and amortization expenses on property, plant and equipment not used in our product development programs or recorded in cost of goods sold, travel and relocation expenses and hiring expenses.

We also record selling, general and administrative expenses for the operations of the Agri-Energy Facility that include administrative and oversight expenses, certain personnel-related expenses, insurance and other operating expenses.

Liquidity and Capital Resources

Since our inception in 2005, we have devoted most of our cash resources to manufacturing, research and development and selling, general and administrative activities related to the commercialization of isobutanol, as well as related products from renewable feedstocks. We have incurred losses since inception and expect to incur losses through at least 2020. We have financed our operations primarily with proceeds from multiple sales of equity and debt securities, borrowings under debt facilities and product sales.

The continued operation of our business is dependent upon raising additional capital through future public and private equity offerings, debt financings or through other alternative financing arrangements. In addition, successful completion of our research and development programs and the attainment of profitable operations are dependent upon future events, including our ability to raise sufficient capital to expand our commercial production facility, completion of our development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, achieving market acceptance and demand for our products and services and attracting and retaining qualified personnel.

As previously disclosed, in May 2016, we commenced a review of strategic alternatives. Our board of directors and its advisors established a process for outreach to, and engagement with, interested strategic and financial parties and creditors. As part of that process, we and our advisors have engaged in discussions with Whitebox and with some of the holders of our 2022 Notes with respect to a recapitalization of the Company that would involve the 2017 Notes and the 2022 Notes. We believe that a recapitalization transaction whereby the Company’s debt is reduced (and/or the maturity date is materially extended) and a sufficient amount of working capital is provided to fund operations would reduce the current liquidity risks for the Company.

There can be no assurances that we will implement a recapitalization transaction. If we are unable to implement a recapitalization or restructuring transaction involving Whitebox and the holders of the 2022 Notes, we will have to seek other strategic alternatives, including other sources of financing and, if unsuccessful, may be forced to seek the protection of bankruptcy court by filing for bankruptcy. We and our advisors have been in engaged in discussions with Whitebox and Whitebox Advisors, LLC, the administrative agent for the holder of our 10% convertible senior secured notes due 2017 (the “2017 Notes”), regarding the extension of the maturity date and/or restructuring of the 2017 Notes. On February 13, 2017, we agreed with Whitebox to (i) extend the maturity date of the 2017 Notes from March 15, 2017 to June 23, 2017, (ii) increase the interest rate on the 2017 Notes by two percent (2%) to twelve percent (12%) per annum, and (iii) pay down $8.0 million of principal on the 2017 Notes in the amount of $2 million on each of March 13, 2017, April 13, 2017, May 12, 2017 and June 13, 2017, with an option for us to prepay all $8.0 million at any time in our sole discretion. In addition, we agreed to apply at least fifteen percent (15%) of the net proceeds from a future offering prior to Jun 23, 2017 to paying down the outstanding principal on the 2017 Notes, which would be in addition to the $8 million prepayment of the 2017 Notes described above**.** As described above, on February 23, 2017, we paid down the principal balance on the 2017 Notes by with 15% of the net proceeds from the offering, along with the $8.0 million in prepayments under the supplemental indenture, for an aggregate total payment of $9.6 million, which reduced the principal balance on the 2017 Notes to approximately $16.5 million. In December 2016, we entered into private exchange agreements with holders of our 7.5% convertible 2022 Notes to exchange an

aggregate of $1.4 million of principal amount of 2022 Notes for an aggregate of 251,832 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $9.6 million at December 31, 2016.

In January 2017, we entered into private exchange agreements with holders of the 2022 Notes to exchange an aggregate of $8.4 million of principal amount of the 2022 Notes for an aggregate of 2,155,382 shares of common stock. Upon completion, these exchanges reduced the outstanding principal amount of the 2022 Notes to $1.2 million.

In September 2016, we voluntarily paid off in full all outstanding amounts owed under the Amended Agri-Energy Loan Agreement and all material commitments and obligations under the Loan and Security Agreement and associated documents were terminated. In connection with the repayment, TriplePoint terminated all of its security interests under the Loan and Security Agreement (including any mortgages and membership interest pledges). In addition, the guaranties by the Company and Gevo Development of the obligations under the Loan and Security Agreement were also terminated.

We expect we will need to raise significant additional capital to finance the Agri Energy Facility Expansion. We can make no assurance that we can raise this capital on acceptable terms or at all and our failure to do so would cause us to be unable to execute on our business plan. Refer to the above section *Subsequent Events* for additional information on the 2017 and 2022 Notes.

In February 2017, we sold 5,680,000 Series G units, with each Series G unit consisting of one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.90 per Series G unit. We also sold 570,000 Series H units, with each Series H unit consisting of a pre-funded Series L warrant to purchase one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.89 per Series H unit. The Series K warrants will have an exercise price of $2.35 per share, are exercisable beginning the date of original issuance and will expire on February 17, 2022. The Series L warrants have an exercise price of $1.90 per share, which were pre-paid upon issuance, except for a nominal exercise price of $0.01 per share and, consequently, no additional payment or other consideration (other than the nominal exercise price of $0.01 per share) will be required to be delivered to us by the holder upon exercise of the Series L warrants. The Series L warrants are exercisable from the date of original issuance and will expire on February 17, 2018. The Series M warrants have an exercise price of $2.35 per share, are exercisable beginning on the date of original issuance and will expire on November 17, 2017. The shares of common stock and the warrants were immediately separable and were issued separately. The gross proceeds to us from this offering were approximately $11.9 million, not including any future proceeds from the exercise of the warrants.

In September 2016, we issued 1,240,000 shares of common stock, 712,503 Series I Warrants and 185,000 Series J Warrants to purchase the same number of shares of our common stock. As of December 31, 2016, the Series I Warrants had an exercise price of $11.00 per share, were exercisable from the date of issuance and expire on September 13, 2021. The Series J Warrants were fully exercised in the third quarter of 2016. The gross proceeds to us were approximately $15.6 million, not including any future proceeds from the exercise of the warrants.

In September 2016, we entered into private exchange agreements with holders of our 7.5% convertible senior notes due 2022 (the “2022 Notes”), to exchange an aggregate of $11.4 million of principal amount of 2022 Notes for an aggregate of 699,968 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $11.0 million.

In June 2016, we closed a best efforts public offering of approximately 1,054,023 shares of common stock at $9.00 per share. We received gross proceeds from this offering of approximately $9.5 million.

In April 2016, we issued and sold 186,071 shares of common stock, Series F Warrants to purchase an additional 514,644 shares of common stock, Series G Warrants to purchase an additional 328,571 shares of common stock and Series H Warrants to purchase an additional 1,029,286 shares of common stock. As of December 31, 2016, The Series F Warrants had an exercise price of $5.80 per share, were exercisable from the date of issuance and expire on April 1, 2021. The Series G Warrants were fully exercised in the second quarter of 2016. The Series H Warrants expired on October 1, 2016. We received gross proceeds of approximately $3.5 million, not including any future proceeds from exercise of the warrants.

In December 2015, we issued and sold 102,500 shares of common stock shares, Series D warrants to purchase an additional 502,500 shares of common stock (the “Series D Warrants”) and Series E warrants to purchase an additional 400,000 shares of common stock (the “Series E Warrants”). As of December 31, 2016, the Series D Warrants have an exercise price of $2.00 per share, are exercisable from the date of original issuance and will expire December 11, 2020. The Series E Warrants were fully exercised in the second quarter of 2016. The gross proceeds from this offering were approximately $9.97 million, not including any future proceeds from the exercise of warrants.

In May 2015, we issued and sold 215,000 shares of common stock and Series C warrants to purchase an additional 21,500 shares of common stock (the "Series C Warrants") in a firm commitment underwritten public offering. As of December 31, 2016, the Series C Warrants have an exercise price of $27.80 per share, are exercisable from the date of the original issuance and will expire on May 19, 2020. The gross proceeds from this offering were approximately $17.2 million, not including any future proceeds from the exercise of warrants.

In February 2015, we issued and sold 110,833 shares of common stock, Series A warrants to purchase an additional 110,833 shares of common stock (the "Series A Warrants") and Series B warrants to purchase an additional 110,833 shares of common stock (the "Series B Warrants"). As of December 31, 2016, the Series A Warrants have an exercise price of $5.80 per share, are exercisable from the date of original issuance and will expire on February 3, 2020. The Series B Warrants expired on August 3, 2015. The gross proceeds from this offering were approximately $6.7 million, not including any future proceeds from the exercise of the warrants.

The following table sets forth the major sources and uses of cash for each of the periods set forth below (in thousands):

	Year Ended December 31,	
	2016	2015
Net cash used in operating activities	$ (20,516)	$ (28,160)
Net cash used in investing activities	(5,938)	(1,320)
Net cash provided by financing activities	37,311	40,152

Operating Activities

Our primary uses of cash from operating activities are personnel-related expenses and research and development-related expenses including costs incurred under development agreements, costs for licensing of technology, legal-related costs and expenses for the production of isobutanol, ethanol and related products, logistics and further processing of ethanol and isobutanol at the Agri-Energy Facility and for the operation of our hydrocarbon demonstration production facility.

During the year ended December 31, 2016, we used $20.5 million in cash for operating activities due to a net loss of $37.3 million, offset by the impact of $17.2 million in non-cash expenses, and $0.5 million net cash used due to an increase in working capital primarily as a result of the paydown of accounts payable coupled with an increase in accounts receivable.

During the year ended December 31, 2015, we used $28.2 million in cash for operating activities due to a net loss of $36.2 million, excluding the impact of $9.0 million in non-cash expenses, and $1.0 million net cash used associated with an increase in working capital primarily a result of a paydown of accounts payable coupled with an increase in both accounts receivable and inventory.

Investing Activities

During the year ended December 31, 2016, we used $5.9 million in cash for investing activities related to capital expenditures at out Agri-Energy Facility.

During the year ended December 31, 2015, we used $1.3 million in cash for investing activities. We used $1.5 million in cash related to capital expenditures at our Agri-Energy Facility and $0.1 million of sales tax refund. In September 2015, we announced that we were deploying approximately $5.0 million of capital expenditures at our Agri-Energy Facility, primarily designed to decrease the cost of production for isobutanol by bringing parts of the process to the facility that have previously been done off-site by third parties. As of December 31, 2015, we had capitalized approximately $2.5 million of the $5.0 million.

Financing Activities

During the year ended December 31, 2016, we accumulated $37.3 million in cash from financing activities primarily related to the net proceeds from public offerings of common stock in April, June, and September 2016 offset by our paydown of the remaining balance of our secured long-term debt in September 2016.

During the year ended December 31, 2015, we generated $40.2 million in cash from financing activities primarily related to the $44.0 million in proceeds from issuance of common stock, offset by $0.3 million in principal payments to TriplePoint, and $3.5 million in equity offering costs incurred in connection with the issuance of stock in February, May, and December 2015.

2017 Notes

In May 2014, we entered into the Loan Agreement, with a maturity date of March 15, 2017, pursuant to which the Lenders committed to provide one or more Term Loans to us in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement. The First Advance of the Term Loan in the amount of $22.8 million, net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was paid to us in May 2014. Also in May 2014, we entered into the Exchange and Purchase Agreement pursuant to which the Lenders were granted the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for our 2017 Notes, which are convertible into shares of our common stock. While outstanding, the aggregate amount of the Term Loan under the Loan Agreement bore interest at a rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan.

In June 2014, Lenders exchanged all $25.9 million of outstanding principal amount of Term Loan provided in the First Advance for 2017 Notes, together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in an indenture by and among the Company, its subsidiaries in their capacity as guarantors, and Wilmington Savings Fund Society, FSB, as trustee (the "2017 Notes Indenture").

The 2017 Notes were originally set to mature on March 15, 2017. However, upon the February 2017 Note Extension Transaction (see *Subsequent Events* above) the 2017 Notes are now set to mature on June 23, 2017. The 2017 Notes have a conversion price equal to $344.83 per share or .0029 shares per $1 principal amount of 2017 Notes. The 2017 Notes do not contain any rights to anti-dilution adjustments for future equity issuances that are below the conversion price, and adjustments to the conversion price would be made only in the event that (i) there is a dividend or distribution paid on shares of our common stock or (ii) there is a subdivision, combination or reclassification of such common stock. Optional prepayment of the 2017 Notes is not permitted.

The February 2017 Note Extension amended the interest rate applicable to the 2017 Notes. The 2017 Notes now bear interest at a rate equal to 12% per annum, which is payable, under certain circumstances, 6% in cash and 6% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 12% is payable in cash). While the Term Loan and 2017 Notes are outstanding, we are required to maintain an interest reserve in an amount equal to 10% of the original outstanding principal amount of $26.1 million, to be adjusted on an annual basis. As of December 31, 2016 and 2015, there was a balance of $2.6 million in the interest reserve account. This amount is classified as restricted deposits.

The 2017 Notes Indenture contains customary affirmative and negative covenants and events of default, including, without limitation, disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments, unless we receive the prior approval of the Lenders. The 2017 Notes Indenture also contains limitations on the ability of the holder to assign or otherwise transfer its interest in the 2017 Notes. The 2017 Notes are secured by a lien on substantially all of our assets and is guaranteed by Agri-Energy, LLC ("Agri-Energy") and Gevo Development, LLC ("Gevo Development"; together, the "Guarantor Subsidiaries" or "Guarantors"). On June 6, 2014, in connection with the issuance of the 2017 Notes, we entered into a Pledge and Security Agreement in favor of the collateral trustee. The collateral pledged includes substantially all of the assets of the Company and the Guarantor Subsidiaries, including intellectual property and real property. Agri-Energy has also entered into a mortgage with respect to the real property located in Luverne, Minnesota.

The holders of the 2017 Notes may, at any time until the close of business on the business day immediately preceding the maturity date, convert the principal amount of the 2017 Notes, or any portion of such principal amount which is at least $1,000, into shares of our common stock. Upon conversion of the 2017 Notes, we will deliver shares of common stock at an initial conversion rate of 0.0029 shares of common stock per $1 principal amount of the 2017 Notes (equivalent to an initial conversion price of approximately $344.83 per share of common stock). Such conversion rate is subject to adjustment in certain circumstances, including in the event that there is a dividend or distribution paid on shares of the common stock or a subdivision, combination or reclassification of the common stock. We also have the right to (i) increase the conversion rate by any amount for a period of at least 20 business days if our board of directors determines that such increase would be in our best interest or (ii) to avoid or diminish any income tax to holders of shares of common stock or rights to purchase shares of common stock in connection with any dividend or distribution. In addition, subject to certain conditions described herein, each holder who exercises its option to voluntarily convert its 2017 Notes will receive a make-whole payment in an amount equal to any unpaid interest that would otherwise have been payable on such 2017 Notes through the maturity date (a "Voluntary Conversion Make-Whole Payment"). Subject to certain limitations, we may pay any Voluntary Conversion Make-Whole Payments either in cash or in shares of common stock, at our election.

We have the right to require holders of the 2017 Notes to convert all or part of the 2017 Notes into shares of our common stock if the last reported sales price of the common stock over any 10 consecutive trading days equals or exceeds 150% of the applicable conversion price (a "Mandatory Conversion"). Each holder whose 2017 Notes are converted in a Mandatory Conversion will receive a make-whole payment for the converted notes in an amount equal to any unpaid interest that would have otherwise been payable on

such 2017 Notes through the maturity date (a “Mandatory Conversion Make-Whole Payment”). Subject to certain limitations, we may pay any Mandatory Conversion Make-Whole Payments either in cash or in shares of common stock, at our election. We did not require any holders to convert in 2015 or in 2016.

On June 1, 2015, we entered into further amendments to the 2017 Notes Indenture to, among other things, permit (i) the execution, delivery, and performance of the Price Risk Management, Origination and Merchandising Agreement (the “Origination Agreement”) with FCStone Merchant Services, LLC and a Grain Bin Lease Agreement with FCStone Merchant Services, LLC , and the related guaranty, (ii) the incurrence of indebtedness by the Company and Agri-Energy pursuant thereto and (iii) the making of the investments by the Company and Agri-Energy thereunder.

On August 22, 2015, we entered into further amendments to the 2017 Notes Indenture to, among other things, permit (i) the execution, delivery, and performance of the patent cross-license and settlement agreements with Butamax and (ii) the exchange of all or any portion of the 2022 Notes for common stock issued by the Company.

In connection with the transactions described above, we also entered into the Registration Rights Agreement, pursuant to which we filed a registration statement on Form S-3 registering the resale of approximately 60,000 shares of our common stock underlying the 2017 Notes. This registration statement was declared effective on July 25, 2014. We may file additional registration statements on Form S-3 or amend filings in order to register additional shares of common stock for sale or resale, as necessary in connection with the 2017 Notes.

Secured Long-Term Debt

On September 30, 2016, we voluntarily paid off in full all outstanding amounts owed under the Amended Agri-Energy Loan Agreement and all material commitments and obligations under the Loan and Security Agreement and associated documents were terminated. In connection with the repayment, TriplePoint terminated all of its security interests under the Loan and Security Agreement (including any mortgages and membership interest pledges). In addition, the guaranties by the Company and Gevo Development of the obligations under the Loan and Security Agreement were also terminated.

2022 Notes

In July 2012, we sold $45.0 million in aggregate principal amount of 2022 Notes, with net proceeds of $40.9 million, after accounting for $2.7 million and $1.4 million of cash discounts and issue costs, respectively. The 2022 Notes bear interest at 7.5% which is to be paid semi-annually in arrears on January 1 and July 1 of each year commencing on January 1, 2013.

The 2022 Notes will mature on July 1, 2022, unless earlier repurchased, redeemed or converted. Additionally, on July 1, 2017, each holder will have the right to require us to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

The 2022 Notes are convertible at a conversion rate of 0.5856 shares of Gevo, Inc. common stock per $1,000 principal amount of 2022 Notes, subject to adjustment in certain circumstances as described in the Indenture dated as of July 5, 2012, as amended, between us and Wells Fargo Bank, National Association (the “2022 Notes Indenture”). This is equivalent to an initial conversion price of approximately $1,707.65 per share of common stock. Holders may convert the 2022 Notes at any time prior to the close of business on the third business day immediately preceding the maturity date of July 1, 2022.

If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment (as defined in the 2022 Notes Indenture). The Coupon Make-Whole Payment is equal to the sum of the present values of the semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. If we elect to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of our common stock for the ten trading days preceding the date of conversion. As of December 31, 2015, certain holders of our 2022 Notes have elected to convert bonds totaling $20.1 million. Upon conversion, the 2022 Note holders received approximately 12,000 shares of our common stock in payment of converted principal of $20.1 million and, pursuant to the terms of the 2022 Notes Indenture, such holders also received approximately 17,000 shares of our common stock in settlement of Coupon Make-Whole Payments of $5.5 million.

In November 2015, we entered into a privately negotiated exchange agreement (“Exchange Agreement”) with one investor holding our 2022 Notes. Pursuant to the Exchange Agreement, the investor exchanged $2.5 million aggregate principal amount of outstanding 2022 Notes (the “Exchanged Notes”) for 55,392 shares of the Company’s common stock, par value $0.01 (“Exchange

Shares"). The investor agreed to waive any accrued but unpaid interest on the Exchanged Notes. The Exchange Shares were issued in reliance on the exemption from registration provided by Section 3(a)(9) of the Securities Act of 1933, as amended, as securities exchanged by the Company with its existing security holders exclusively where no commission or other remuneration is paid or given directly or indirectly for soliciting the exchange.

In September 2016, we entered into private exchange agreements with holders of the 2022 Notes, to exchange an aggregate of $11.4 million of principal amount of 2022 Notes for an aggregate of 699,968 shares of common stock.

In December 2016, we entered into a private exchange agreement with holders of the 2022 Notes to exchange an aggregate of $1.4 million of principal amount of the 2022 Notes for an aggregate of 251,832 shares of common stock. As a result of the foregoing conversions and exchanges, the principal balance of the 2022 Notes has been reduced to $9.6 million as of December 31, 2016.

If a Make-Whole Fundamental Change (as defined in the 2022 Notes Indenture) occurs and a holder elects to convert its 2022 Notes prior to July 1, 2017, the applicable conversion rate will increase based upon reference to the table set forth in Schedule A of the Indenture. In no event will the conversion rate increase to more than 0.6734 shares of common stock per $1,000 principal amount of 2022 Notes.

If a Fundamental Change (as defined in the 2022 Notes Indenture) occurs, at any time, then each holder will have the right to require us to repurchase all of such holder's 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

We have a provisional redemption right to redeem, at our option, all or any part of the 2022 Notes at a price payable in cash, beginning on July 1, 2015 and prior to July 1, 2017, provided that our common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day immediately prior to the date of the redemption notice exceeds 150% of the conversion price in effect on such trading day. On or after July 1, 2017, we have an optional redemption right to redeem, at our option, all or any part of the 2022 Notes at a price payable in cash. The price payable in cash for the Optional Redemption or Provisional Redemption is equal to 100% of the principal amount of 2022 Notes redeemed plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

If there is an Event of Default (as defined in the 2022 Notes Indenture) under the 2022 Notes, the holders of not less than 25% in principal amount of Outstanding Notes (as defined in the 2022 Notes Indenture) by notice to us and the trustee may, and the trustee at the request of such holders shall, declare the principal amount of all the Outstanding Notes and accrued and unpaid interest thereon to be due and payable immediately. There have been no events of default as of December 31, 2016.

Contractual Obligations and Commitments

The following summarizes the future commitments arising from our contractual obligations at December 31, 2016 (in thousands).

	Less than 1 year	2-3 years	4 - 5 years	Thereafter	Total
Principal debt payments (1)	$ 26,108	$ -		$ 9,575	$ 35,683
Interest payments on debt (2)	1,255	1,436	1,436	359	4,486
Operating leases (3)	1,543	2,328	594	-	4,465
Software license agreement (4)	167	-	-	-	167
Insurance and Maintenance	234	-	-	-	234
Total	$ 29,307	$ 3,764	$ 2,030	$ 9,934	$ 45,035

(1) Principal debt payments include the principal amounts of the outstanding 2017 Notes and 2022 Notes.
(2) Interest payments due to holders of the 2017 Notes and 2022 Notes.
(3) Commitments for operating leases primarily relate to our leased facility in Englewood, Colorado and our lease for rail cars for ethanol and isobutanol shipments.
(4) Amounts due under a software license agreement.

The table above reflects only payment obligations that are fixed and determinable. The above amounts exclude potential payments to be made under our license and other agreements that are based on the achievement of future milestones or royalties on product sales.

Off-Balance Sheet Arrangements

We did not have during 2016 or the other periods presented, and we do not currently have, any off-balance sheet arrangements, or relationships with unconsolidated entities, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with generally accepted accounting principles, or GAAP, in the U.S. requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements included in this Report, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our reported financial results and reflect the more significant judgments and estimates that we use in the preparation of our consolidated financial statements.

Accounting for Senior Secured Debt, Convertible Notes and Embedded Derivative

2017 Notes

We have elected the fair value option for accounting of the 2017 Notes in order for management to mitigate income statement volatility caused by measurement basis differences between the embedded instruments or to eliminate complexities of applying certain accounting models. Accordingly, the principal amount of 2017 Notes outstanding at December 31, 2016 of $26.1 million has been recorded at its estimated fair value of $25.8 million and is included in the 2017 Notes recorded at fair value on the consolidated balance sheet at December 31, 2016. Change in the estimated fair value of the 2017 Notes represents an unrealized gain included in gain from change in fair value of 2017 Notes in the consolidated statement of operations. During the year ended December 31, 2016, we incurred cash interest expense of $2.6 million.

The following table sets forth the inputs to the lattice model that were used to value the 2017 Notes for which the fair value option was elected.

	December 31,	
	2016	**2015**
Stock price	$ 3.40	$ 12.40
Conversion Rate per $1,000	2.90	2.90
Conversion Price	$ 344.83	$ 344.83
Maturity date (1)	March 15, 2017	March 15, 2017
Risk-free interest rate	0.49%	0.74%
Estimated stock volatility	80.0%	140.0%
Estimated credit spread	20.0%	30.0%

(1) The 2017 Notes were valued as of December 31, 2016, and used assumptions that existed at that time. The impact of our 2017 Notes Extension Transaction with the 2017 Notes holders (see *Subsequent Events* disclosure above) on certain key features, including extension of the maturity date to June 23, 2017 was not included in the assumptions used to value the 2017 Notes.

The following table sets forth information pertaining to the 2017 Notes which is included in our consolidated balance sheets (in thousands).

	Principal Amount of 2017 Notes	Change in Estimated Fair Value	Total
Balance - December 31, 2015	$ 26,108	$ (4,543)	$ 21,565
Loss from change in fair value of debt	-	$ 4,204	4,204
Balance - December 31, 2016	$ 26,108	$ (339)	25,769

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the 2017 Notes. For example, the estimated fair value will generally decrease with: (i) a decline in the stock price; (ii) a decrease in the estimated stock volatility; and (iii) an increase in the estimated credit spread. The change in the estimated fair value of the 2017 Notes during the year ended December 31, 2016, represents an unrealized gain which has been recorded as gain from change in fair value of 2017 Notes in the consolidated statements of operations.

2022 Notes and Embedded Derivative

In July 2012, we sold $45.0 million in aggregate principal amount of 2022 Notes. Terms of the 2022 Notes, include, among others: (i) rights to convert into shares of our common stock, including upon a Fundamental Change (as defined in the 2022 Notes Indenture); and (ii) a Coupon Make-Whole Payment (as defined in the 2022 Notes Indenture) in the event of a conversion by the holders of the 2022 Notes prior to July 1, 2017. The embedded derivative is separated from the host contract, the 2022 Notes, and carried at fair value when: (a) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (b) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument. The Company has concluded that the embedded derivative within the 2022 Notes meet these criteria and, as such, must be valued separate and apart from the 2022 Notes as an embedded derivative and recorded at fair value each reporting period. The fair value of the embedded derivative is included as a component of the 2022 Notes on our consolidated balance sheets.

We used a binomial lattice model in order to estimate the fair value of the embedded derivative in the 2022 Notes. A binomial lattice model generates two probable outcomes, whether up or down, arising at each point in time, starting from the date of valuation until the maturity date. A lattice was initially used to determine if the 2022 Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the 2022 Notes will be converted early if the conversion value is greater than the holding value; and (ii) the 2022 Notes will be called if the holding value is greater than both (a) the Redemption Price (as defined in the 2022 Notes Indenture) and (b) the conversion value plus the Coupon Make-Whole Payment at the time. If the 2022 Notes are called, then the holders will maximize their value by finding the optimal decision between (1) redeeming at the Redemption Price and (2) converting the 2022 Notes.

Using this lattice, we valued the embedded derivative using a “with-and-without method,” where the value of the 2022 Notes including the embedded derivative is defined as the “with,” and the value of the 2022 Notes excluding the embedded derivative is defined as the “without.” This method estimates the value of the embedded derivative by looking at the difference in the values between the 2022 Notes with the embedded derivative and the value of the 2022 Notes without the embedded derivative. The lattice model requires the following inputs: (i) price of our common stock; (ii) Conversion Rate (as defined in the 2022 Notes Indenture); (iii) Conversion Price (as defined in the 2022 Notes Indenture); (iv) maturity date; (v) risk-free interest rate; (vi) estimated stock volatility; and (vii) estimated credit spread for the Company.

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the embedded derivative. For example, the estimated fair value of the embedded derivative will generally decrease with: (i) a decline in the stock price; (ii) decreases in the estimated stock volatility; and (iii) a decrease in the estimated credit spread. From the date the 2022 Notes were issued through December 31, 2016, we observed a significant decline in the market price of our common stock which resulted in a $28.0 million decrease in the estimated fair value of our embedded derivative from issuance through December 31, 2016. These changes in the estimated fair value of the embedded derivative represent unrealized gains, which have been recorded as gains from change in fair value of embedded derivative in the consolidated statements of operations.

Derivative Warrant Liability

The following warrants were sold by the Company:

- In December 2013, the Company sold warrants to purchase 71,013 shares of the Company’s common stock (the “2013 Warrants”).

- In August 2014, the Company sold warrants to purchase 50,000 shares of the Company's common stock (the "2014 Warrants").
- In February 2015, the Company sold Series A warrants to purchase 110,833 shares of the Company's common stock (the "Series A Warrants") and Series B warrants to purchase 110,833 shares of the Company's common stock (the "Series B Warrants").
- In May 2015, the Company sold Series C warrants to purchase 21,500 shares of the Company's common stock (the "Series C Warrants").
- In December 2015, the Company sold Series D warrants to purchase 502,500 shares of the Company's common stock (the "Series D Warrants") and Series E warrants to purchase 400,000 shares of the Company's common stock (the "Series E Warrants").
- In April 2016, the Company sold 514,644 Series F warrants to purchase one share of common stock (each a "Series F Warrant") and 1,029,286 Series H warrants, each to purchase one share of common stock (each, a "Series H Warrant"), and 328,571 pre-funded Series G warrants ("Series G Warrants") to purchase one share of common stock, pursuant to an underwritten public offering.
- In September 2016, the Company sold 712,503 Series I warrants to purchase one share of common stock (each a "Series I Warrant") and 185,000 pre-funded Series J warrants ("Series J Warrants") to purchase one share of common stock, pursuant to an underwritten public offering.

The following table sets forth information pertaining to shares issued upon the exercise of Warrants as of December 31, 2016:

	Issuance Date	Expiration Date	Exercise Price as of December 31, 2016	Shares Underlying Warrants on Issuance Date	Shares Issued upon Warrant Exercises as of December 31, 2016	Shares Underlying Warrants Outstanding as of December 31, 2016
2013 Warrants	12/16/2013	12/16/2018	$ 49.80	71,013	(15,239)	55,774
2014 Warrants	8/5/2014	8/5/2019	$ 36.20	50,000	(30,538)	19,462
Series A Warrants	2/3/2015	2/3/2020	$ 5.80	110,833	(99,416)	11,417
Series B Warrants	2/3/2015	8/3/2015	-	110,833	(96,795)	-
Series C Warrants	5/19/2015	5/19/2020	$ 27.80	21,500	-	21,500
Series D Warrants	12/11/2015	12/11/2020	$ 2.00	502,500	(501,570)	930
Series E Warrants	12/11/2015	12/11/2020	-	400,000	(400,000)	-
Series F Warrants	4/1/2016	4/1/2021	$ 5.80	514,644	(233,857)	280,787
Series G Warrants	4/1/2016	4/1/2017	-	328,571	(328,571)	-
Series H Warrants	4/1/2016	10/1/2016	-	1,029,286	(900,436)	-
Series I Warrants	9/13/2016	9/13/2021	$ 11.00	712,503	-	712,503
Series J Warrants	9/13/2016	9/13/2017	-	185,000	(185,000)	-
				4,036,683	(2,791,422)	1,102,373

The agreements governing the above Warrants include the following terms:

- certain Warrants have exercise prices which are subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the respective Warrants;
- Warrant holders may exercise the Warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of its common stock. If an effective registration statement is available for the issuance of its common stock a holder may only exercise the Warrants through a cash exercise;
- the exercise price and the number and type of securities purchasable upon exercise of the Warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of the Company's assets and certain other events; and

- in the event of an “extraordinary transaction” or a “fundamental transaction” (as such terms are defined in the respective warrant agreements), generally including any merger with or into another entity, sale of all or substantially all of the Company’s assets, tender offer or exchange offer, or reclassification of its common stock, in which the successor entity (as defined in the respective warrant agreements) that assumes the Warrant is not a publicly traded company, the Company or any successor entity will pay the Warrant holder, at such holder’s option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder’s Warrants as determined in accordance with the Black Scholes option pricing model and the terms of the respective warrant agreement.

Based on these terms, the Company has determined that the Warrants qualify as derivatives and, as such, are presented as derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The fair value of the Warrants was estimated to be $2.7 million and $10.5 million as of December 31, 2016 and December 31, 2015, respectively. The increase in the estimated fair value of the Warrants represents an unrealized loss which has been recorded as a loss from the change in fair value of derivative warrant liability in the consolidated statements of operations.

During the twelve months ended December 31, 2016, our common stock was issued as a result of exercise of Warrants as described below:

	Twelve Months Ended December 31, 2016	
	Common Stock Issued	Proceeds
Series A Warrants	83,333	$ 500,000
Series D Warrants	501,570	1,315,694
Series E Warrants	326,450	65,290
Series F Warrants	233,857	1,403,143
Series G Warrants	328,571	65,714
Series H Warrants	900,436	8,911,537
Series J Warrants	185,000	37,000
	2,559,217	$ 12,298,378

During the twelve months ended December 31, 2016, the Company issued 2,559,217 shares of common stock as a result of the exercise of Series A, D, E, F, G, H and J Warrants. The Company received proceeds of $12.3 million from such exercises.

In May 2016, as permitted by Section 2(a) of the Series H Warrant agreement, the board of directors of the Company approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 375,000 shares of the Company’s common stock, from an exercise price of $15.00 per share of common stock to $6.00 per share of common stock, for the remaining term of these warrants. Except for the reduction in exercise price, the terms of these Series H Warrants remain unchanged.

In June 2016, as permitted by Section 2(a) of the Series H Warrant agreement, the Board of Directors of the Company approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 150,000 shares of the Company’s common stock, from an exercise price of $15.00 per share of common stock to $8.40 per share of common stock, for the remaining term of these warrants. The board of directors of the Company also approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 100,000 shares of the Company’s common stock, from an exercise price of $15.00 per share of common stock to $10.40 per share of common stock, for the remaining term of these warrants. Ultimately, the Company adjusted the exercise price to $10.40 per share of common stock for Series H Warrants exercisable into 50,000 shares of the Company’s common stock. Except for the reduction in exercise price, the terms of these Series H Warrants remain unchanged.

In June 2016, as permitted by Section 9 of the Series D Warrant agreement, the Company agreed with certain holders of the Series D Warrants to the amend the exercise price and accelerate the initial exercise date for Series D Warrants exercisable into 208,370 shares of the Company’s common stock held by such holders. Pursuant to that amendment, with respect to these Series D Warrants held by those holders, the exercise price was increased from an exercise price of $2.00 per share of common stock to $3.50 per share of common stock, for the remaining term of these warrants and the initial exercise date was changed from June 11, 2016 to June 8, 2016. Except for the change in exercise price and the initial exercise date, the terms of these Series D Warrants remained unchanged.

As of December 31, 2016, all of the Series H Warrants and Series D Warrants for which the exercise price had been adjusted were fully exercised.

Impairment of Property, Plant and Equipment

Our property, plant and equipment consist primarily of assets associated with the acquisition and Retrofit of the Agri-Energy Facility. We assess impairment of property, plant and equipment for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances applicable to our current stage of operations which could trigger a review include, but are not limited to: (i) significant decreases in the market price of the asset; (ii) significant adverse changes in the business climate or legal or regulatory factors; (iii) accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; and (iv) expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset is considered to be impaired if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset.

We evaluated our Agri-Energy Facility for impairment as of December 31, 2016. This evaluation included comparing the carrying amount of the acquisition and Retrofit of the Agri-Energy Facility to the estimated undiscounted future cash flows at the Agri-Energy Facility as this represents the lowest level of identifiable cash flows. Significant assumptions included in the estimated undiscounted future cash flows include, among others, estimates of the:

- sales price of isobutanol, hydrocarbons, ethanol and by-products such as dried distiller's grains;
- purchase price of corn;
- production levels of isobutanol;
- capital and operating costs to produce isobutanol; and
- estimated useful life of the primary asset.

Factors which can impact these assumptions include, but are not limited to;

- effectiveness of our technology to produce isobutanol at targeted margins;
- demand for isobutanol and oil prices; and
- harvest levels of corn.

Based upon our evaluation at December 31, 2016, we concluded that the estimated undiscounted future cash flows from Agri-Energy exceeded the carrying value of the Agri-Energy Facility and, as such, these assets were not impaired. Although our cash flow forecasts are based on assumptions that are consistent with our planned use of the assets, these estimates required significant exercise of judgment and are subject to change in future reporting periods as facts and circumstances change. Additionally, we may make changes to our business plan that could result in changes to the expected cash flows. As a result, it is possible that a long- lived asset may be impaired in future reporting periods.

Stock-Based Compensation

Our stock-based compensation expense includes expenses associated with share-based awards granted to employees and board members and expenses associated with our employee stock purchase plan ("ESPP"). The estimated fair value of stock options and ESPP awards is determined on the date of grant and recorded to expense over the requisite service period, generally the vesting period. We estimate the fair value of stock option awards using the Black-Scholes option-pricing model which requires judgments to be made, including estimating: (i) the expected life of an award; (ii) stock price volatility; and (iii) prior to our initial public offering in February 2011, the fair value of our common stock.

The Black-Scholes option-pricing model calculates the estimated fair value of stock options using the following inputs: (i) expected stock option life; (ii) expected volatility; (iii) risk-free interest rate; (iv) expected dividend yield rate; (v) exercise price; and (vi) closing price of our common stock on the date of grant.

Due to our limited history of grant activity, we use the "simplified method" permitted by the SEC to estimate the expected stock option life as the arithmetic average of the total contractual term of the option and its vesting period. We calculate the estimated volatility rate based on selected comparable public companies, due to a lack of historical information regarding the volatility of our stock price. We will continue to analyze the historical stock price volatility assumption as more historical data for our common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury yield curve in effect on the date of grant for instruments with a term similar to the expected life of the related option. No dividends are expected to be paid.

The estimated fair value of a stock option using the Black-Scholes option-pricing model is impacted significantly by changes in a company's stock price. For example, all other assumptions being equal, the estimated fair value of a stock option will increase as the closing price of a company's stock increases, and decrease as the closing price of a company's stock decreases. Prior to the closing of

our initial public offering, we were a private company and, as such, we were required to estimate the fair value of our common stock. In the absence of a public trading market, we determined a reasonable estimate of the then-current fair value of our common stock for purposes of granting stock-based compensation based on multiple criteria. We determined the fair value of our common stock utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Aid, "Valuation of Privately-Held-Company Equity Securities Issued as Compensation." After the closing of our initial public offering in February 2011, the fair value of our common stock is no longer an estimate as it is based upon the closing price of our stock on the date of grant.

Revenue Recognition

Following our acquisition of Agri-Energy on September 22, 2010, we have primarily derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. The production of ethanol alone is not our intended business and our future strategy is expected to depend on our ability to produce and market isobutanol and products derived from isobutanol. Revenue from the sale of ethanol, hydrocarbons or excess corn inventory is recognized when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title is transferred to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between us and our customers.

Lease revenue related to the contractual agreements for utilization of the Agri-Energy storage facilities is recognized on a straight line basis over the term of the lease.

Revenue related to our government research grants and cooperative agreements is recognized in the period during which the related costs are incurred or over the contract period, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding.

Recent Accounting Pronouncements

See Note 2 in **Item 8. "Financial Statements and Supplemental Data**," of this Report, for a discussion of recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Commodity Price Risk

We have produced isobutanol, ethanol and distiller's grains from corn and our business is sensitive to changes in the price of corn. The price of corn is subject to fluctuations due to unpredictable factors such as weather, corn planted and harvested acreage, changes in national and global supply and demand and government programs and policies. We use natural gas during the production of isobutanol and ethanol and, as a result, our business is also sensitive to changes in the price of natural gas. The price of natural gas is influenced by such weather factors as extreme heat or cold in the summer and winter, or other natural events like hurricanes in the spring, summer and fall. Other natural gas price factors include North American exploration and production, and the amount of natural gas in underground storage during both the injection and withdrawal seasons. Ethanol, isobutanol and hydrocarbon prices are sensitive to world crude oil supply and demand, crude oil refining capacity and utilization, government regulation and consumer demand for alternative fuels. Distiller's grains prices are sensitive to various demand factors such as numbers of livestock on feed, prices for feed alternatives and supply factors, primarily production by ethanol plants and other sources.

Historically, we have attempted to reduce the market risk associated with fluctuations in the price of corn by employing a variety of risk management and economic hedging strategies. Strategies include the use of forward purchase contracts and exchange-traded futures contracts. Exchange-traded futures contracts for corn are recorded as a derivative asset or liability on our consolidated balance sheets at fair value. Changes in the fair value during a reporting period are recognized as cost of goods sold in our consolidated statements of operations.

In June 2015, Agri-Energy, our wholly-owned subsidiary, entered into a Price Risk Management, Origination and Merchandising Agreement (the "Origination Agreement") with FCStone Merchant Services, LLC ("FCStone") and a Grain Bin Lease Agreement with FCStone (the "Lease Agreement"). Pursuant to the Origination Agreement, FCStone will originate and sell to Agri-Energy, and Agri-Energy will purchase from FCStone, the entire volume of corn grain used by our plant in Luverne, Minnesota. The initial term of the Origination Agreement will continue for a period of eighteen months and will automatically renew for additional terms of one year unless Agri-Energy gives notice of non-renewal to FCStone. FCStone will receive an origination fee for purchasing and supplying Agri-Energy with all of the corn used by Agri-Energy's plant in Luverne, Minnesota. As security for the payment and performance of all indebtedness, liabilities and obligations of Agri-Energy to FCStone, Agri-Energy granted to FCStone a security

interest in the corn grain stored in grain storage bins owned and operated by Agri-Energy ("Storage Bins") and leased to FCStone pursuant to the Lease Agreement. Pursuant to the Lease Agreement, FCStone will lease Storage Bins from Agri-Energy to store the corn grain prior to title of the corn grain transferring to Agri-Energy upon Agri-Energy's purchase of the corn grain. FCStone agrees to lease Storage Bins sufficient to store 700,000 bushels of corn grain and agrees to pay to Agri-Energy $175,000 per year. The term of the Lease Agreement will run concurrently with the Origination Agreement, and will be extended, terminated, or expire in accordance with the Origination Agreement. The Company also entered into an unsecured guaranty (the "Guaranty") in favor of FCStone whereby the Company guaranteed the obligations of Agri-Energy to FCStone under the Origination Agreement. The Guaranty shall terminate on the earlier to occur of (i) April 15, 2020 or (ii) termination of the Origination Agreement.

Equity Price Risk

2022 Notes. As of December 31, 2016, we had $9.6 million in principal amount of 2022 Notes due July 1, 2022. We are subject to equity price risk related to the Coupon Make-Whole Payment feature of this debt. If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment. The Coupon Make-Whole Payment is equal to the sum of the present values of the number of semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. We may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at our election. If we elect to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of our common stock for the 10 trading days preceding the date of conversion. Accordingly, based upon the number of semi-annual interest payments currently due upon a conversion, at a $4.0235 daily volume weighted average common stock price (the daily volume weighted average prices of our common stock for the 10 trading days up to and including December 31, 2016), if we elected to settle the Coupon Make-Whole Payment components of all conversions, we would be required to issue 421 shares to settle the Coupon Make-Whole Payment upon conversion of the principal amount of 2022 Notes outstanding as of December 31, 2016.

The 2022 Notes include terms that are considered to be an embedded derivative, including the Coupon Make-Whole Payment (see Note 6). On a quarterly basis, we are required to record this embedded derivative at fair value with the changes being recorded as a component of our consolidated statements of operations. Accordingly, our results of operations are subject to exposure associated with increases or decreases in the estimated fair value of our embedded derivative.

2017 Notes. As of December 31, 2016, we had $26.1 million in principal amount of 2017 Notes due March 15, 2017. We are subject to equity price risk related to the following as described in the 2017 Notes Indenture. The make-whole provision of the 2017 Notes has no equity price risk since the conversion price is fixed as 0.0029. If our common stock trades above $330.00, the interest is payable 6% in cash and 6% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the 12% is payable in cash). Refer to the *Subsequent Events* disclosure above for amendments to both modified the stated interest rate to 12% and extended the maturity date to June 23, 2017. Changes to the equity price impacts the fair value accounting treatment of the 2017 notes, as described in Note 17 *Fair Value Measurements and Fair Value of Financial Instruments* in Item 8. Financial Statements and Supplemental Data, of this Report.

Warrants. As of December 31, 2016, there were 712,503 shares underlying the Series I Warrants, 280,787 shares underlying the Series F Warrants, 930 shares underlying the Series D Warrants, 21,500 shares underlying the Series C Warrants, 11,417 shares underlying the Series A Warrants, 19,462 shares underlying the 2014 Warrants and 55,774 shares underlying the 2013 Warrants, respectively that are derivative instruments and are recorded at an estimated fair value each reporting period. The change in the estimated fair value, which is determined in part based upon the quoted market prices of the Warrants, represents an unrealized gain or loss included in our consolidated statement of operations. Accordingly, our results of operations are subject to exposure associated with increases or decreases in the estimated fair value of the Warrants.

Refer to "**Critical Accounting Policies and Estimates"** included in this **Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations"** for an additional discussion on the impact on our results of operations associated with the embedded derivative and derivative instruments described above.

Interest Rate Risk

We had cash and cash equivalents totaling $27.9 million at December 31, 2016. These amounts were invested primarily in demand deposit checking and savings accounts and are held for working capital purposes. The primary objective of our investment activities is to preserve our capital for the purpose of funding our operations and we do not enter into investments for trading or speculative purposes. Accordingly, we believe we do not have material exposure to changes in fair value as a result of changes in interest rates.

The terms of our 2017 Notes and 2022 Notes provide for fixed rates of interest, and are therefore not subject to fluctuations in market interest rates.

The valuations of the 2017 Notes and the embedded derivative within the 2022 Notes both use the risk-free interest rate as an input, so the valuations are subject to interest rate risk.

Item 8. Financial Statements and Supplementary Data

Index to Gevo, Inc. Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
Gevo, Inc.

We have audited the accompanying consolidated balance sheets of Gevo, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows the years ended December 31, 2016 and 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Gevo, Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for the years ended December 31, 2016 and 2015 in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and the amount of existing working capital at December 31, 2016 is not sufficient to meet the cash requirements to fund operations and service debt through March 29, 2018 without additional sources of cash. These conditions, along with other matters as set forth in Note 1, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. As described in Note 8 to the consolidated financial statements, these matters may also potentially affect the Company's rights and obligations under certain of its debt agreements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We also have audited the adjustments to the December 31, 2014 financial statements to retrospectively apply the reverse stock split transaction as described in Note 2 to the financial statements. In our opinion, such adjustments are appropriate and have been properly applied. We were not engaged to audit, review, or apply any procedures to the December 31, 2014 financial statements of the Company other than with respect to such adjustments, and accordingly, we do not express an opinion or any other form of assurance on the December 31, 2014 financial statements taken as a whole.

/s/ GRANT THORNTON LLP

Denver, Colorado
March 30, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Gevo, Inc.
Englewood, CO

We have audited, before the effects of the adjustments to retrospectively reflect the reverse stock splits as discussed in Note 2 to the consolidated financial statements, the accompanying consolidated statements of operations, stockholders' equity, and cash flows of Gevo, Inc and subsidiaries (the "Company") for the period ended December 31, 2014 (the 2014 consolidated financial statements before the effects of the adjustments for the reverse stock splits as discussed in Note 2 to the consolidated financial statements are not presented herein). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such consolidated financial statements, before the effects of the adjustments to retrospectively reflect the reverse stock splits as discussed in Note 2 to the consolidated financial statements, present fairly, in all material respects, the results of the operations and the cash flows of Gevo, Inc. for the period ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements the Company's insufficient working capital raises substantial doubt about the Company's ability to continue as a going concern. Management's plans concerning these matters are also described in Note 1 to the consolidated financial statements. As described in Note 8 to the consolidated financial statements, these matters may also potentially affect the Company's rights and obligations under certain of its debt agreements. The consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

We were not engaged to audit, review, or apply any procedures to the adjustments to retrospectively apply the two reverse stock splits discussed in Note 2 to the consolidated financial statements, and, accordingly, we do not express an opinion or any other form of assurance about whether such retrospective adjustments are appropriate and have been properly applied. Those retrospective adjustments were audited by other auditors.

/s/ DELOITTE & TOUCHE LLP

Denver, Colorado
March 27, 2015

GEVO, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	December 31,	
	2016	**2015**
Assets		
Current assets:		
Cash and cash equivalents	$ 27,888	$ 17,031
Accounts receivable	1,122	1,391
Inventories	3,458	3,487
Prepaid expenses and other current assets	850	731
Total current assets	33,318	22,640
Property, plant and equipment, net	75,592	76,777
Restricted deposits	2,611	2,611
Deposits and other assets	803	803
Total assets	$ 112,324	$ 102,831
Liabilities		
Current liabilities:		
Accounts payable and accrued liabilities	$ 6,193	$ 7,476
Current portion of secured debt, net	-	330
Current Portion of 2017 Notes recorded at fair value	25,769	-
Derivative warrant liability	2,698	10,493
Total current liabilities	34,660	18,299
Long-term portion of secured debt, net	-	153
Long Term portion of 2017 Notes recorded at fair value	-	21,565
2022 Notes, net	8,221	14,341
Other long-term liabilities	179	147
Total liabilities	43,060	54,505
Commitments and Contingencies (see Note 16)	-	-
Stockholders' Equity		
Common stock, $0.01 par value per share; 250,000,000 authorized; 7,074,246 and 1,080,352 shares issued and outstanding at December 31, 2016 and 2015, respectively. (See Note 2)	71	10
Additional paid-in capital	445,913	387,808
Accumulated deficit	(376,720)	(339,492)
Total stockholders' equity	69,264	48,326
Total liabilities and stockholders' equity	$ 112,324	$ 102,831

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share amounts)

	Year Ended December 31,		
	2016	**2015**	**2014**
Revenue and cost of goods sold			
Ethanol sales and related products, net	$ 24,613	$ 27,125	$ 23,549
Hydrocarbon revenue	1,929	1,694	3,949
Grant and other revenue	671	1,318	768
Total revenues	27,213	30,137	28,266
Cost of goods sold	37,017	38,762	35,582
Gross loss	(9,804)	(8,625)	(7,316)
Operating expenses			
Research and development expense	5,216	6,610	14,120
Selling, general and administrative expense	8,965	16,692	18,341
Total operating expenses	14,181	23,302	32,461
Loss from operations	(23,985)	(31,927)	(39,777)
Other (expense) income			
Interest expense	(7,837)	(8,243)	(8,255)
Interest expense - debt issue costs	-	-	(3,769)
Gain (Loss) on exchange or conversion of debt	(763)	232	-
Gain (Loss) on extinguishment of warrant liability	(918)	1,775	-
Gain from change in fair value of embedded derivative of the 2022 Notes	-	-	3,470
Gain from change in fair value of derivative warrant liability	1,783	577	6,530
Gain (Loss) from change in fair value of 2017 Notes	(4,204)	3,895	648
Loss on issuance of equity	(1,519)	(2,523)	-
Other income	215	20	8
Total other (expense) income	(13,243)	(4,267)	(1,368)
Net loss	$ (37,228)	$ (36,194)	$ (41,145)
Net loss per share - basic and diluted	$ (9.68)	$ (51.61)	$ (153.35)
Weighted-average number of common shares outstanding - basic and diluted	3,847,421	701,252	268,308

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

	Common Stock		Additional Paid-In	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Deficit	Equity
BALANCE—December 31, 2013	228,310	$ 2	$ 333,126	$ (262,153)	$ 70,975
Issuance of restricted stock	3,794	-	-	-	-
Issuance of common stock, net of issue costs and warrants	100,000	1	14,222	-	14,223
Cancellation of restricted stock	(220)	-	-	-	-
Issuance of common stock for services, upon exercise of stock options and pursuant to an employee stock purchase plan	210	-	51	-	51
Non-cash stock-based compensation	-	-	2,860	-	2,860
Net loss	-	-	-	(41,145)	(41,145)
BALANCE—December 31, 2014	332,094	$ 3	$ 350,259	$ (303,298)	$ 46,964
Shares issued upon reverse stock split	34	-	-	-	-
Issuance of restricted stock	23,791	-	-	-	-
Issuance of common stock, net of issue costs and warrants	428,333	4	22,442	-	22,446
Cancellation of restricted stock	(37)	-	-	-	-
Issuance of common stock for services, upon exercise of stock options and pursuant to an employee stock purchase plan	38	-	3	-	3
Non-cash stock-based compensation	-	-	2,647	-	2,647
Issuance of common stock upon exercise of warrants	232,205	2	10,164	-	10,166
Issuance of common stock upon conversion of debt	8,502	-	714	-	714
Issuance of common stock upon exchange of debt	55,392	1	1,579	-	1,580
Net loss	-	-	-	(36,194)	(36,194)
BALANCE—December 31, 2015	1,080,352	$ 10	$ 387,808	$ (339,492)	$ 48,326
Shares issued upon reverse stock split	4	-	-	-	-
Issuance of common stock under stock plans, net	2,782	-	-	-	-
Cancellation of restricted stock	(4)	-	-	-	-
Issuance of common stock, net of issue costs & warrants	2,480,094	25	34,199	-	34,224
Non-cash stock-based compensation	-	-	886	-	886
Issuance of common stock upon exercise of warrants	2,559,218	26	12,272	-	12,298
Issuance of common stock upon exchange of debt	951,800	10	10,748	-	10,758
Net loss	-	-	-	(37,228)	(37,228)
BALANCE—December 31, 2016	7,074,246	$ 71	$ 445,913	$ (376,720)	$ 69,264

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2016	**2015**	**2014**
Operating Activities			
Net loss	$ (37,228)	$ (36,194)	$ (41,145)
Adjustments to reconcile net loss to net cash used in operating activities:			
(Gain) from the change in fair value of derivative warrant liability	(1,783)	(577)	(6,530)
(Gain) from the change in fair value of the embedded derivative to the 2022 Notes	-	-	(3,470)
Loss/(Gain) from the change in fair value of 2017 Notes	4,204	(3,895)	(648)
Loss/(Gain) on exchange or conversion of debt	763	(232)	-
Loss/(Gain) on extinguishment of warrant liability	918	(1,775)	-
Loss on issuance of equity	1,519	2,523	-
Stock-based compensation	886	2,647	2,860
Depreciation and amortization	6,747	6,573	4,880
Non-cash interest expense	3,977	3,772	7,860
Other non-cash expenses	(1)	(7)	66
Changes in operating assets and liabilities:			
Accounts receivable	269	970	(1,003)
Inventories	29	805	(711)
Prepaid expenses and other current assets	(119)	1	431
Accounts payable, accrued expenses, and long-term liabilities	(697)	(2,771)	(1,580)
Net cash used in operating activities	(20,516)	(28,160)	(38,990)
Investing Activities			
Acquisitions of property, plant and equipment	(5,938)	(1,464)	(4,894)
Restricted certificate of deposit	-	-	(2,611)
Proceeds from sales tax refund for property, plant and equipment	-	144	-
Net cash used in investing activities	$ (5,938)	$ (1,320)	$ (7,505)

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)
(In thousands)

	Year Ended December 31,		
	2016	**2015**	**2014**
Financing Activities			
Payments on secured debt	(504)	(318)	(9,824)
Debt and equity offering costs	(3,144)	(3,519)	(5,873)
Proceeds from issuance of common stock upon exercise of stock options and employee stock purchase plan	-	3	19
Proceeds from issuance of common stock and common stock warrants	28,661	33,820	18,000
Proceeds from issuance of convertible debt, net	-	-	25,907
Proceeds from the exercise of warrants	12,298	10,166	-
Net cash provided by financing activities	37,311	40,152	28,229
Net increase (decrease) in cash and cash equivalents	10,857	10,672	(18,266)
Cash and cash equivalents			
Beginning of year	17,031	6,359	24,625
Ending of year	$ 27,888	$ 17,031	$ 6,359

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)
(In thousands)

Supplemental disclosures of cash and non-cash investing and financing transactions	Year Ended December 31, 2016	2015	2014
Conversion and exchanges of convertible debt for common stock	$ 10,758	$ 2,294	$ -
Cash paid for interest, net of interest capitalized	$ -	$ 4,589	$ 4,213
Capitalization of interest, from term to 2017 convertible notes	$ -	$ -	$ 201
Non-cash purchase of property, plant and equipment	$ 513	$ 890	$ 108
Accrued offering costs	$ -	$ 648	$ -
Issuance of common stock for services	$ -	$ -	$ 31
Fair value of warrants at issuance and upon exercise, net	$ 6,668	$ (7,951)	$ 2,400

See the accompanying Notes to the Consolidated Financial Statements.

1. Nature of Business and Financial Condition

Nature of Business. Gevo, Inc. ("Gevo" or the "Company," which, unless otherwise indicated, refers to Gevo, Inc. and its subsidiaries) is a renewable chemicals and next generation biofuels company focused on the development and commercialization of alternatives to petroleum-based products based on isobutanol produced from renewable feedstocks. Gevo, Inc. was incorporated in Delaware on June 9, 2005. Gevo, Inc. formed Gevo Development, LLC ("Gevo Development") in September 2009 to finance and develop biorefineries through joint venture, licensing arrangements, tolling arrangements or direct acquisition (see Note 12 *Gevo Development* for more information on Gevo Development). Gevo Development became a wholly-owned subsidiary of the Company in September 2010. Gevo Development purchased Agri-Energy, LLC ("Agri-Energy") in September 2010. Through May 2012, Agri-Energy, a wholly-owned subsidiary of Gevo Development, was engaged in the business of producing and selling ethanol and related products produced at its plant located in Luverne, Minnesota (the "Agri-Energy Facility"). The Company commenced the retrofit of the Agri-Energy Facility in 2011 and commenced initial startup operations for the production of isobutanol at this facility in May 2012. In September 2012, the Company made the strategic decision to pause isobutanol production at the Agri-Energy Facility to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, the Company modified the Agri-Energy Facility in order to increase the isobutanol production rate. In June 2013, the Company resumed the limited production of isobutanol, operating one fermenter and one Gevo Integrated Fermentation Technology® ("GIFT®") separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that its biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, the Company expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify its results with a second configuration of equipment. In October 2013, the Company began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, the Company decided to leverage the flexibility of its GIFT® technology and make further modifications to the Agri-Energy Facility which it believed would enable the simultaneous production of isobutanol and ethanol. In July 2014, the Company began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with the Company's strategy to maximize asset utilization and site cash flows, the Company believes that this configuration of the plant should allow it to continue to optimize its isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins.

As of December 31, 2016, the Company continues to engage in research and development, business development, business and financial planning, optimize operations for isobutanol, hydrocarbon and ethanol production and raise capital to fund future expansion of our Agri-Energy Facility for increased isobutanol and hydrocarbon production. Ultimately, the Company believes that the attainment of profitable operations is dependent upon future events, including (i) completing its development activities resulting in commercial production and sales of isobutanol or isobutanol-derived products and/or technology, (ii) obtaining adequate financing to complete its development activities, (iii) obtaining adequate financing to build out further isobutanol production capacity, (iv) gaining market acceptance and demand for its products and services, and (v) attracting and retaining qualified personnel.

The Company has primarily derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. The production of ethanol alone is not the Company's intended business and its future strategy is expected to depend on its ability to produce and market isobutanol and products derived from isobutanol. Given that the production of ethanol alone is not the Company's intended business, and the Company is only beginning to achieve more consistent production and revenue from the sale of isobutanol, the historical operating results of Agri-Energy may not be indicative of future operating results for Agri-Energy or Gevo.

Financial Condition. For the year ended December 31, 2016, the Company incurred a consolidated net loss of $37.2 million and had an accumulated deficit of $376.7 million. The Company's cash and cash equivalents at December 31, 2016 totaled $27.9 million which is primarily being used for the following: (i) operating activities and completion of the side-by-side configuration of the Agri-Energy Facility; (ii) operating activities at its corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with its Agri-Energy Facility; (iv) costs associated with optimizing isobutanol production technology; and (v) debt service obligations. The Company expects to incur future net losses as it continues to fund the development and commercialization of its product candidates. The Company's transition to profitability is dependent upon, among other things, the successful development and commercialization of its product candidates and the achievement of a level of revenues adequate to support the Company's cost structure. The Company may never achieve profitability or positive cash flows, and unless and until it does, the Company will continue to need to raise additional cash. Management intends to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, the Company may seek additional capital through arrangements with strategic partners or from other sources, it may seek to restructure its secured debt and it will continue to address its cost structure. Notwithstanding, there can be no assurance that the Company will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations. Based on the Company's current operating plan, existing working capital

at December 31, 2016 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date the Company's 2016 financial statements are issued unless the Company is able to restructure and extend its debt obligations and/or raise additional capital to fund operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern at December 31, 2016. The Company's inability to continue as a going concern may potentially affect the Company's rights and obligations under its Senior Secured Debt and Convertible Notes. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern and do not include adjustments that might result from the outcome of this uncertainty. This basis of accounting contemplates the recovery of the Company's assets and the satisfaction of liabilities in the normal course of business. See Note 8 *Senior Secured Debt, Secured Debt and Convertible Debt* for information on the Company's debt obligations.

2. Summary of Significant Accounting Policies

Principles of Consolidation. The consolidated financial statements of Gevo include the accounts of its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Basis of Presentation. The consolidated financial statements of the Company (which include the accounts of its wholly-owned subsidiaries Gevo Development and Agri-Energy) have been prepared pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (the "SEC") and accounting principles generally accepted in the U.S. for complete financial statements. These statements reflect all normal and recurring adjustments which, in the opinion of management, are necessary to present fairly the financial position, results of operations and cash flows of the Company at December 31, 2016.

Reverse Stock Splits. On December 14, 2016, the Board of Directors approved an amendment to its Amended and Restated Certificate of Incorporation to effect a reverse stock split of the Company's common stock, par value $0.01 at a ratio of one-for-twenty. The reverse stock split became effective January 5, 2017. On April 15, 2015, the Board of Directors of the Company approved a reverse split of the Company's common stock, at a ratio of one-for-fifteen. This reverse stock split became effective on April 20, 2015. Unless otherwise indicated, all share amounts, per share data, share prices, exercise prices and conversion rates set forth in these notes and the accompanying consolidated financial statements have, where applicable, been adjusted retroactively to reflect both of these reverse stock splits.

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

Concentrations of Credit Risk. The Company's financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents in excess of the federally insured limits. The Company's cash and cash equivalents are deposited with high credit-quality financial institutions and are primarily in demand deposit accounts.

Cash and Cash Equivalents. The Company maintains its cash and cash equivalents in highly liquid interest bearing money market accounts or non-interest bearing demand accounts. The Company considers all highly liquid investments purchased with a maturity of three months or less at the date of acquisition to be cash equivalents.

Accounts Receivable. The Company records receivables for products shipped and services provided but for which payment has not yet been received. As of December 31, 2016 and 2015, no allowance for doubtful accounts has been recorded, based upon the expected full collection of the accounts receivable. As of December 31, 2016 and 2015, one customer, C&N Ethanol Marketing, LLC comprised 53% and 56%, respectively, of our outstanding trade accounts receivable.

Inventories. Inventory is recorded at the lower of cost or market value and cost of goods sold is determined by average cost method. Ethanol and isobutanol inventory cost consists of the applicable share of raw material, direct labor and manufacturing overhead costs. Spare Parts inventory consists of the parts required to maintain and operate the Company's Luverne, Minnesota facility and is recorded at cost.

Restricted Deposits. The Company maintains a restricted deposit related to the 2017 Notes (defined below) that is equivalent to ten percent of the principal balance. The balance at December 31, 2016 and 2015 was $2.6 million.

Derivative Instruments. The Company evaluates its contracts for potential derivatives which Gevo, Inc. uses to raise capital. See Note 6 for a description of the Company's accounting for embedded derivatives and Note 7 for a description of the Company's

derivative warrant liability. At issuance date, derivative warrant liabilities are initially recognized as a liability with a corresponding reduction in stockholders' equity. Changes in the estimated fair value of the derivative warrant liability between issuance date and exercise/expiration date represents an unrealized (gain)/loss and is recognized and recorded in the *Consolidated Statement of Operations*. The fair value of the derivative warrant liability is ultimately either reclassed into equity upon either exercise or, if expired, a realized (gain)/loss is recognized and recorded in the *Consolidted Statement of Operation.*

As of December 31, 2016 and 2015, the Company did not have any forward purchase contracts or exchange-traded futures contracts.

Property, Plant and Equipment. Property, plant and equipment are recorded at cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the assets' estimated useful lives. Leasehold improvements are amortized over the term of the lease agreement or the service lives of the improvements, whichever is shorter. Assets under construction are depreciated when they are placed into service. Maintenance and repairs are charged to expense as incurred and expenditures for major improvements are capitalized.

Impairment of Property, Plant and Equipment. The Company's property, plant and equipment consist primarily of assets associated with the acquisition and retrofit of the Agri-Energy Facility. The Company assesses impairment of property, plant and equipment for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate, or legal or regulatory factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; or expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset is considered to be impaired if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets.

The Company evaluated its Agri-Energy Facility for impairment as of December 31, 2016 and 2015. These evaluations included comparing the carrying amount of the acquisition and retrofit of the Agri-Energy Facility to the estimated undiscounted future cash flows at the Agri-Energy Facility as this represents the lowest level of identifiable cash flows. Significant assumptions included in the estimated undiscounted future cash flows include, among others, estimates of the:

- sales price of isobutanol, hydrocarbons, ethanol and by-products such as dried distiller's grains;
- purchase price of corn;
- production levels of isobutanol;
- capital and operating costs to produce isobutanol; and
- estimated useful life of the primary asset.

Factors which can impact these assumptions include, but are not limited to;

- effectiveness of the Company's technology to produce isobutanol at targeted margins;
- demand for isobutanol and oil prices; and
- harvest levels of corn.

Based upon the Company's evaluation at December 31, 2016 and 2015, the Company concluded that the estimated undiscounted future cash flows from the Agri-Energy Facility exceeded the carrying value and, as such, these assets were not impaired. Although the Company's cash flow forecasts are based on assumptions that are consistent with its planned use of the assets, these estimates required significant exercise of judgment and are subject to change in future reporting periods as facts and circumstances change. Additionally, the Company may make changes to its business plan that could result in changes to the expected cash flows. As a result, it is possible that a long-lived asset may be impaired in future reporting periods.

Debt at Fair Value Option. The Company has elected the fair value option for certain long-term debt instruments that qualify for such treatment. See Note 8 for a detailed description of the accounting for the 2017 convertible notes that are accounted for in such manner.

Debt Issue Costs. Debt issue costs are costs incurred in connection with the Company's debt financings that primarily have been capitalized and are being amortized over the stated maturity period or estimated life of the related debt, using the effective interest method.

Revenue Recognition. The Company records revenue from the sale of hydrocarbon products, ethanol and related products, including the sale of corn inventory. The Company recognizes revenue when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title transfer to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between the Company and its customers. In accordance with the Company's agreements for the marketing and sale of ethanol and related products, commissions due to marketers were deducted from the gross sales price at the time payment was remitted. Ethanol and related products sales were recorded net of commissions.
Revenue related to government research grants and cooperative agreements is recognized in the period during which the related costs are incurred, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding. Revenues related to the lease agreements are recognized on a straight-line basis over the term of the contract.

In 2016, 2015 and 2014, C&N Ethanol Marketing, LLC accounted for approximately 75%, 73% and 71% of our consolidated revenue, respectively. In the same years, Land O'Lakes Purina Feed LLC accounted for approximately 18%, 19% and 13% of our consolidated revenue, respectively. Given our production capacity compared to the overall size of the North American market and the demand for our products, we do not believe that a decline in a specific customer's purchases would have a material adverse long-term effect upon our financial results.

Cost of Goods Sold. Cost of goods sold includes costs incurred in conjunction with the operations for the production of isobutanol at the Agri-Energy Facility and costs directly associated with the ethanol and related products production process such as costs for direct materials, direct labor and certain plant overhead costs. Costs associated with the operations for the production of isobutanol includes costs for direct materials, direct labor, plant utilities, including natural gas, and plant depreciation. Direct materials consist of dextrose for initial production of isobutanol, corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in production operations at the Agri-Energy Facility. Costs of direct materials for the production of ethanol and related products consist of corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in the operation of the Agri-Energy Facility. Plant overhead costs primarily consist of plant utilities and plant depreciation. Cost of goods sold is mainly affected by the cost of corn and natural gas. Corn is the most significant raw material cost. The Company purchases natural gas to power steam generation in the production process and to dry the distiller's grains, a by-product of ethanol and related products production.

Patents. All costs related to filing and pursuing patent applications are expensed as incurred as recoverability of such expenditures is uncertain. Patent-related legal expenses incurred are recorded as selling, general and administrative expense, and during the years ended December 31, 2016, 2015 and 2014 were $0.2 million, $0.9 million, and $0.9 million, respectively.

Research and Development. Research and development costs are expensed as incurred and are recorded as research and development expense in the *Consolidated Statement of Operations*. The Company's research and development costs consist of expenses incurred to identify, develop, and test its technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expense includes personnel costs, consultants and related contract research, facility costs, supplies, depreciation on property, plant and equipment used in development, license fees and milestone payments paid to third parties for use of their intellectual property and patent rights, and other direct and allocated expenses incurred to support the Company's overall research and development programs.

Income Taxes. Deferred tax assets and liabilities are recognized based on the difference between the carrying amounts of assets and liabilities in the financial statements and their respective tax bases. Deferred tax assets and liabilities are measured using currently enacted tax rates in effect in the years in which those temporary differences are expected to reverse. Deferred tax assets should be reduced by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. At December 31, 2016 and 2015, based upon current facts and circumstances, the Company had recorded a valuation allowance against its deferred tax assets of $139.3 million and $134.1 million, respectively.

Stock-Based Compensation. The Company's stock-based compensation expense includes expenses associated with share-based awards granted to employees and board members, and expenses associated with awards under its employee stock purchase plan ("ESPP"). Stock-based compensation expense for all share-based payment awards granted is based on the grant date fair value. The grant date fair value for stock option awards is estimated using the Black-Scholes option pricing model and the grant date fair value for restricted stock awards is based upon the closing price of the Company's common stock on the date of grant. The Company recognizes compensation costs for share-based payment awards granted to employees net of estimated forfeitures and recognizes stock-based compensation expense for only those awards expected to vest on a straight-line basis over the requisite service period of the award, which is currently the vesting term of up to four years. For performance based restricted stock awards, the Company recognizes expense over the requisite service period.

Net Loss Per Share. Basic net loss per share is computed by dividing the net loss attributable to Gevo, Inc. common stockholders for the period by the weighted-average number of common shares outstanding during the period. Diluted earnings per share ("EPS") includes the dilutive effect of common stock equivalents and is computed using the weighted-average number of common stock and common stock equivalents outstanding during the reporting period. Diluted EPS for the years ending December 31, 2016, 2015, and 2014 excluded common stock equivalents because the effect of their inclusion would be anti-dilutive, or would decrease the reported loss per share.

The following table sets forth securities that could potentially dilute the calculation of diluted earnings per share. This table excludes any shares that could potentially be issued in settlement of make-whole payments associated with the 2017 Notes and the 2022 Notes.

	Year Ended December 31,		
	2016	2015	2014
Warrants to purchase common stock	1,103,766	1,024,635	125,212
Convertible 2017 notes	75,119	75,191	75,127
Convertible 2022 notes	5,608	13,117	15,752
Outstanding options to purchase common stock	16,915	24,089	12,245
Unvested restricted common stock	8,823	16,413	2,918
Total	1,210,231	1,153,445	231,254

The following table sets forth additional securities transactions that had they occurred in 2016 would have further diluted the calculation for earnings/(loss) per share:

	Date	Shares
2022 Note exchanges	January 2017	2,155,382
Issuance of common stock	February 2017	5,680,000
Exercise of Series L Warrants	March 2017	155,000
Total		7,990,382

Recent Accounting Pronouncements

Revenue from Contracts with Customers ("ASU 2014-09"). In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers*. The objective of ASU 2014-09 is to outline a new, single comprehensive model to use in accounting for revenue arising from contracts with customers. The new revenue recognition model provides a five-step analysis for determining when and how revenue is recognized, depicting the transfer of promised goods or services to customers in an amount that reflects the consideration that is expected to be received in exchange for those goods or services. ASU 2014-09 is effective for fiscal years and interim periods within those years beginning after December 15, 2016. Early adoption is permitted. On July 9, 2015, the FASB Board voted to delay the implementation of ASU 2014-09 by one year to December 15, 2017. In April 2016, the FASB issued *Accounting Standards Update No. 2016-10 Revenue from Contracts with Customers, Identifying Performance Obligations and Licensing* ("ASU 2016-10") which provides additional clarification regarding *Identifying Performance Obligations and Licensing*. The new standard is required to be applied retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying it recognized at the date of initial application. The Company has not yet selected a transition method. The Company does not anticipate the new standard to materially impact how it accounts for its (a) ethanol and related products revenue and (b) hydrocarbon revenue. However, we are currently evaluating the impact to our grant revenue as there could be a potential for changes to the nature and timing of revenue recognized under our various grant agreements.

Simplifying the Measurement of Inventory ("ASU 2015-11"). In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory* which requires an entity to measure in scope inventory at the lower of cost and net realizable value. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments do not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. The amendments are effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The amendments should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company is currently in the process of evaluating the impact of adoption of ASU 2015-11 on its consolidated balance sheets.

Leases ("ASU 2016-02"). In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Topic 842 Leases*. ASU-2016-02 requires leases to be reported on the financial statements. The objective is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. This Update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Future minimum lease obligations for leases accounted for as operating leases at December 31, 2016 totaled $4.5 million. The Company is currently in the process of evaluating the impact of adoption of ASU 2016-02 on our consolidated financial statements.

***Derivatives and Hedging (Topic 815) Contingent Put and Call Options in Debt Instruments* ("ASU 2016-06").** In March 2016, the FASB issued Accounting Standards Update No. 2016-06, *Derivatives and Hedging (Topic 815) Contingent Put and Call Options in Debt Instruments*. Topic 815 requires that embedded derivatives be separated from the host contract and accounted for separately as derivatives if certain criteria are met. There are two approaches for determining if the criteria are met. The objective of ASU 2016-06 is intended to resolve the diversity in practice resulting from those two approaches. This Update are effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company has reviewed the new standard and determined that it will not change the Company's accounting.

***Compensation—Stock Compensation* ('ASU 2016-09").** In March 2016, the FASB issued Accounting Standards Update No. 2016-09, *Compensation—Stock Compensation*. This standard was issued as part of its Simplification Initiative. The objective of the Simplification Initiative is to identify, evaluate, and improve areas of generally accepted accounting principles (GAAP) for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The areas for simplification in this Update involve several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this Update are effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. The Company is currently in the process of evaluating the impact of adoption of ASU 2016-09 on its consolidated financial statements.

Statement of Cash Flows, Classification of Certain Cash Receivable and Cash Payments ("ASU 2016-15). In August 2016, the FASB issued Accounting Standards Update No. 2016-15, *Statement of Cash Flows Classification of Certain Cash Receipts and Cash Payments* which clarifies cash flow statement classification of eight specific cash flow issues. The purpose of ASU 2016-15 is to provide clarification and consistency for classifying the eight specific cash flow issues because current GAAP either is unclear or does not include specific guidance. The amendments in the update are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company is currently in the process of evaluating the impact of adoption of ASU 2016-15 on its consolidated statements of cash flows.

Adoption of New Accounting Pronouncements.

Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern ("ASU 2014-15".) In August 2014, the FASB issued Accounting Standards Update No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*. The objective of ASU 2014-15 is to provide guidance in GAAP about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. ASU 2015-15 requires a management evaluation about whether there are conditions or events, considered in the aggregate, that raise substantial doubt about an entity's ability to continue as a going concern within one year after the date the financial statements are issued or available to be issued. In doing so, ASU 2014-15 should reduce diversity in the timing and content of footnote disclosures. The Company adopted this standard for the year-ended December 31, 2016 through the disclosure regarding its financial condition in Note 1 – *Nature of Business and Financial Condition*.

Balance Sheet Classification of Deferred Income Taxes ("ASU 2015-17"). In November 2015, the FASB issued Accounting Standards Update No. 2015-17, *Balance Sheet Classification of Deferred Income Taxes*. This standard is issued as part of its Simplification Initiative. The objective of the Simplification Initiative is to identify, evaluate, and improve areas of generally accepted accounting principles (GAAP) for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The amendments in this Update require that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The amendments in this update are effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. The Company has elected to early adopt this standard for the year-ended December 31, 2016. Adoption of this standard does not materially impact the presentation of the Company's consolidated balance sheets as it continues to estimate a one-hundred percent valuation allowance reducing net deferred income taxes to $0.

Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03") . In April 2015, the FASB issued Accounting Standards Update No. 2015-03 *Simplifying the Presentation of Debt Issuance Costs* intended to simplify the presentation of debt issuance costs. These amendments require that debt issuance costs be presented as a direct deduction from the carrying amount of the related debt liabilities, consistent with the presentation of debt discounts. This will result in the elimination of debt issuance costs as an asset and will reduce the carrying value of the Company's debt liabilities. This guidance is effective for annual reporting periods, and interim periods within those annual periods, beginning after December 15, 2015. The Company has adopted the guidance as of January 1, 2016. The adoption of this guidance had an immaterial impact on our financial position and has resulted in the following retrospective adjustments to our consolidated balance sheet at December 31, 2015 (in thousands):

	December 31, 2015	
	As reported	As adjusted
Total Assets	$ 103,128	$ 102,831
Current portion of secured debt, net	$ 332	$ 330
2022 Notes, net	$ 14,636	$ 14,341

3. Inventories

The following table sets forth the components of the Company's inventory balances (in thousands).

	December 31,	
	2016	2015
Raw materials		
Corn	$ 108	$ 517
Enzymes and other inputs	309	283
Nutrients	10	4
Finished goods		
Ethanol	72	172
Isobutanol	755	-
Jet Fuels, Isooctane and Isooctene	519	514
Distiller's grains	-	13
Work in process - Agri Energy	274	460
Work in process - Gevo	62	109
Spare parts	1,349	1,415
Total inventories	$ 3,458	$ 3,487

Work in process inventory includes unfinished jet fuel, isooctane, isooctene and isobutanol inventory. Prior to 2016, finished isobutanol located at our Agri-Energy Facility was classified within Work in process – Agri-Energy given the majority of our isobutanol production was being used as feedstock to produce hydrocarbons such as jet fuel, isooctane and isooctene. During 2016, the Company chose to classify isobutanol as a component of finished goods due to the increased production of isbutanol at our Agri-Energy Facility and the positive market development and customer demand for isobutanol being sold directly into the market as a gasoline blendstock.

4. Property, Plant and Equipment

The following table sets forth the Company's property, plant and equipment by classification (in thousands).

		December 31,	
		2016	2015
Construction in progress	-	$ 293	$ 1,801
Plant machinery and equipment (1)	10 years	15,397	14,113
Site improvements	10 years	7,050	7,039
Agri-Energy Retrofit asset (1)	20 years	70,791	65,457
Lab equipment, furniture and fixtures and vehicles	5 years	6,431	6,389
Demonstration plant	2 years	3,597	3,597
Buildings	10 years	2,543	2,543
Computer, office equipment and software	3 years	1,594	1,566
Leasehold improvements, pilot plant, land and support equipment	2 - 5 years	2,526	2,175
Total property, plant and equipment		110,222	104,680
Less accumulated depreciation and amortization		(34,630)	(27,903)
Property, plant and equipment, net		$ 75,592	$ 76,777

(1) In May 2016, certain assets of the Agri-Energy retrofit asset were reclassified from plant, machinery and equipment to the Agri-Energy retrofit asset.

As of December 31, 2016 and 2015, the Company has $0.7 million and $0.7 million , respectively, of capital lease assets included in computer, office equipment and software. The Company recorded amortization of capital lease assets of $0.1 million during each of the years ended December 31, 2016, 2015 and 2014, as a component of depreciation and amortization in the consolidated statements of cash flows.

The Company recorded $6.7 million, $6.6 million, and $4.9 million of depreciation expense for the years ended December 31, 2016, 2015, and 2014, respectively, including $6.0 million, $5.7 million, and $4.0 million of depreciation expense in cost of goods sold for the years ended December 31, 2016, 2015 and 2014 respectively.

5. Accounts Payable and Accrued Liabilities

The following table sets forth the components of the Company's accounts payable and accrued liabilities in the consolidated balance sheets (in thousands).

	December 31,	
	2016	2015
Accounts payable - trade	$ 2,611	$ 2,691
Accrued legal-related fees	626	854
Accrued employee compensation	1,385	2,082
Accrued interest	359	840
Accrued taxes payable	136	138
Short-term capital lease	147	144
Other accrued liabilities *	929	727
Total accounts payable and accrued liabilities	$ 6,193	$ 7,476

* Other accrued liabilities consist of franchise taxes, property taxes, audit fees, and a variety of other expenses, none of which individually represent greater than five percent of total current liabilities.

6. Embedded Derivatives

In July 2012, the Company issued 7.5% convertible senior notes due 2022 (the "2022 Notes") which contain the following embedded derivatives: (i) rights to convert into shares of the Company's common stock, including upon a Fundamental Change (as

defined in the indenture governing the 2022 Notes (the "Indenture")); and (ii) a Coupon Make-Whole Payment (as defined in the Indenture) in the event of a conversion by the holders of the 2022 Notes prior to July 1, 2017. Embedded derivatives are separated from the host contract, the 2022 Notes, and carried at fair value when: (a) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (b) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument. The Company has concluded that the embedded derivatives within the 2022 Notes meet these criteria and, as such, must be valued separate and apart from the 2022 Notes and recorded at fair value each reporting period.

The Company used a binomial lattice model in order to estimate the fair value of the embedded derivative in the 2022 Notes. A binomial lattice model generates two probable outcomes, whether up or down, arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was initially used to determine if the 2022 Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the 2022 Notes will be converted early if the conversion value is greater than the holding value; and (ii) the 2022 Notes will be called if the holding value is greater than both (a) the Redemption Price (as defined in the Indenture) and (b) the conversion value plus the Coupon Make-Whole Payment at the time. If the 2022 Notes are called, then the holders will maximize their value by finding the optimal decision between (1) redeeming at the Redemption Price and (2) converting the 2022 Notes.

Using this lattice model, the Company valued these embedded derivatives using a "with-and-without method," where the value of the 2022 Notes including the embedded derivative, is defined as the "with", and the value of the 2022 Notes excluding the embedded derivative, is defined as the "without". This method estimates the value of the embedded derivative by looking at the difference in the values between the 2022 Notes with the embedded derivative and the value of the 2022 Notes without the embedded derivative. The lattice model requires the following inputs: (i) price of Gevo common stock; (ii) Conversion Rate (as defined in the Indenture); (iii) Conversion Price (as defined in the Indenture); (iv) maturity date; (v) risk-free interest rate; (vi) estimated stock volatility; and (vii) estimated credit spread for the Company.

Inputs used to estimate the value of the embedded derivative as of December 31, 2016 were substantially similar to those used as of the period ended December 31, 2015. Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the embedded derivatives. For example, the estimated fair value of the embedded derivatives will generally decrease with; (i) a decline in the stock price; (ii) a decrease in the estimated stock volatility; and (iii) a decrease in the estimated credit spread.

As of December 31, 2016 and 2015, the estimated fair value of the embedded derivatives was zero. Any decline in the estimated fair value of the embedded derivatives represents an unrealized gain which has been recorded as gain from change in fair value of embedded derivatives in the consolidated statements of operations. The Company recorded the estimated fair value of the embedded derivative with the 2022 notes, net in the consolidated balance sheets.

7. Derivative Warrant Liability

The following warrants were sold by the Company:

- December 2013, the Company sold warrants to purchase 71,013 shares of the Company's common stock (the "2013 Warrants").
- August 2014, the Company sold warrants to purchase 50,000 shares of the Company's common stock (the "2014 Warrants").
- February 2015, the Company sold Series A warrants to purchase 110,833 shares of the Company's common stock (the "Series A Warrants") and Series B warrants to purchase 110,833 shares of the Company's common stock (the "Series B Warrants").
- May 2015, the Company sold Series C warrants to purchase 21,500 shares of the Company's common stock (the "Series C Warrants").
- December 2015, the Company sold Series D warrants to purchase 502,500 shares of the Company's common stock (the "Series D Warrants") and Series E warrants to purchase 400,000 shares of the Company's common stock (the "Series E Warrants").
- April 2016, the Company sold 514,644 Series F warrants to purchase one share of common stock (the "Series F Warrant") and 1,029,286 Series H warrants, each to purchase one share of common stock (the "Series H Warrant"), and

328,571 pre-funded Series G warrants ("Series G Warrants") to purchase one share of common stock, pursuant to an underwritten public offering.

- September 2016, the Company sold 712,503 Series I warrants to purchase one share of common stock (the "Series I Warrant") and 185,000 pre-funded Series J warrants ("Series J Warrants") to purchase one share of common stock, pursuant to an underwritten public offering.

The following sets forth information pertaining to shares issued upon the exercise of such warrants for the year ended December 31, 2016:

	Issuance Date	Expiration Date	Exercise Price as of December 31, 2016	Shares Underlying Warrants on Issuance Date	Shares Issued upon Warrant Exercises as of December 31, 2016	Shares Underlying Warrants Outstanding as of December 31, 2016
2013 Warrants	12/16/2013	12/16/2018	$ 49.80	71,013	(15,239)	55,774
2014 Warrants	8/5/2014	8/5/2019	$ 36.20	50,000	(30,538)	19,462
Series A Warrants	2/3/2015	2/3/2020	$ 5.80	110,833	(99,416)	11,417
Series B Warrants	2/3/2015	8/3/2015	-	110,833	(96,795)	-
Series C Warrants	5/19/2015	5/19/2020	$ 27.80	21,500	-	21,500
Series D Warrants	12/11/2015	12/11/2020	$ 2.00	502,500	(501,570)	930
Series E Warrants	12/11/2015	12/11/2020	-	400,000	(400,000)	-
Series F Warrants	4/1/2016	4/1/2021	$ 5.80	514,644	(233,857)	280,787
Series G Warrants	4/1/2016	4/1/2017	-	328,571	(328,571)	-
Series H Warrants	4/1/2016	10/1/2016	-	1,029,286	(900,436)	-
Series I Warrants	9/13/2016	9/13/2021	$ 11.00	712,503	-	712,503
Series J Warrants	9/13/2016	9/13/2017	-	185,000	(185,000)	-
				4,036,683	(2,791,422)	1,102,373

The agreements governing the above warrants include the following terms:

- certain warrants have exercise prices which are subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the respective warrants;
- warrant holders may exercise the warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of its common stock. If an effective registration statement is available for the issuance of its common stock, a holder may only exercise the warrants through a cash exercise;
- the exercise price and the number and type of securities purchasable upon exercise of the warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of the Company's assets and certain other events; and
- in the event of an extraordinary transaction (as defined in the respective warrant agreements), generally including any merger with or into another entity, sale of all or substantially all of the Company's assets, tender offer or exchange offer, or reclassification of its common stock, in which the successor entity (as defined in the respective warrant agreements) that assumes the warrant is not a publicly traded company, the Company or any successor entity will pay the warrant holder, at such holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder's warrants as determined in accordance with an appropriate valuation model and the terms of the respective warrant agreement.

Based on these terms, the Company has determined that the 2013 Warrants, the 2014 Warrants, the 2015 Warrants and the 2016 Warrants (together, the "Warrants") qualify as derivatives and, as such, are presented as a derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The fair value of the Warrants was estimated to be

$2.7 million and $10.5 million as of December 31, 2016 and December 31, 2015, respectively. The decrease in the estimated fair value of the Warrants represents an unrealized (gain)/loss which has been recorded as a loss from the change in fair value of derivative warrant liability in the consolidated statements of operations.

During the twelve months ended December 31, 2016, Common Stock was issued as a result of exercise of Warrants as described below:

	Twelve Months Ended December 31, 2016	
	Common Stock Issued	Proceeds
Series A Warrants	83,333	$ 500,000
Series D Warrants	501,570	1,315,694
Series E Warrants	326,450	65,290
Series F Warrants	233,857	1,403,143
Series G Warrants	328,571	65,714
Series H Warrants	900,436	8,911,537
Series J Warrants	185,000	37,000
	2,559,217	$ 12,298,378

In May 2016, as permitted by Section 2(a) of the Series H Warrant agreement, the board of directors of the Company approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 375,000 shares of the Company's common stock, from an exercise price of $15.00 per share of common stock to $6.00 per share of common stock, for the remaining term of these warrants. Except for the reduction in exercise price, the terms of these Series H Warrants remain unchanged.

In June 2016, as permitted by Section 2(a) of the Series H Warrant agreement, the Board of Directors of the Company approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 150,000 shares of the Company's common stock, from an exercise price of $15.00 per share of common stock to $8.40 per share of common stock, for the remaining term of these warrants. The board of directors of the Company also approved a voluntary reduction of the exercise price of Series H Warrants exercisable into 100,000 shares of the Company's common stock, from an exercise price of $15.00 per share of common stock to $10.40 per share of common stock, for the remaining term of these warrants. Ultimately, the Company adjusted the exercise price to $10.40 per share of common stock for Series H Warrants exercisable into 50,000 shares of the Company's common stock. Except for the reduction in exercise price, the terms of these Series H Warrants remain unchanged.

In June 2016, as permitted by Section 9 of the Series D Warrant agreement, the Company agreed with certain holders of the Series D Warrants to amend the exercise price and accelerate the initial exercise date for Series D Warrants exercisable into 208,370 shares of the Company's common stock held by such holders. Pursuant to that amendment, with respect to these Series D Warrants held by those holders, the exercise price was increased from an exercise price of $2.00 per share of common stock to $3.50 per share of common stock, for the remaining term of these warrants and the initial exercise date was changed from June 11, 2016 to June 8, 2016. Except for the change in exercise price and the initial exercise date, the terms of these Series D Warrants remained unchanged.

As of December 31, 2016, all of the Series B, E, G, H, and J Series Warrants for which the exercise price had been adjusted were fully exercised or expired.

8. Senior Secured Debt, Secured Debt and Convertible Notes

Senior Secured Debt

In May 2014, the Company entered into a term loan agreement (the "Loan Agreement") with the lenders party thereto from time to time (each, a "Lender" and collectively, the "Lenders") and Whitebox Advisors, LLC, as administrative agent for the Lenders ("Whitebox"), with a maturity date of June 23, 2017 (refer to Note 19 *Subsequent Events* for disclosure on our February 2017 agreement with the lender to extend the maturity date from March 15, 2017), pursuant to which the Lenders committed to provide one or more senior secured term loans to the Company in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement (collectively, the "Term Loan"). The first advance of the Term Loan in the amount of $22.8 million (the "First Advance"), net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was made to the

Company in May 2014. Also in May 2014, the Company and its subsidiaries entered into an Exchange and Purchase Agreement (the "Exchange and Purchase Agreement") with WB Gevo, Ltd. and the other Lenders party thereto from time to time and Whitebox, in its capacity as administrative agent for the Lenders. Pursuant to the terms of the Exchange and Purchase Agreement, the Lenders were given the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for the Company's 2017 Notes (as defined below), which are convertible into shares of the Company's common stock. While outstanding, the Term Loan bore an interest rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan.

In June 2014, the Lenders exchanged all $25.9 million of outstanding principal amount of Term Loan provided in the First Advance for 10% convertible senior secured notes due 2017 (the "2017 Notes" and, together with the 2022 Notes, the "Convertible Notes"), together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in an indenture by and among the Company, its subsidiaries in their capacity as guarantors, and Wilmington Savings Fund Society, FSB, as trustee (the "2017 Notes Indenture").

The 2017 Notes were originally set to mature on March 15, 2017. However, upon the February 2017 Note Extension Transaction (see Note 19 *Subsequent Events)*, the 2017 Notes are now set to mature on June 23, 2017. The 2017 Notes have a conversion price (the "Conversion Price") equal to $344.83 per share or 0.0029 shares per $1 principal amount of 2017 Notes. Optional prepayment of the 2017 Notes will not be permitted. In addition, the February 2017 Note Extension amended the interest rate applicable to the 2017 Notes. The 2017 Notes now bear interest at a rate equal to 12% per annum, which is payable 6% in cash and, under certain circumstances, 6% in kind and capitalized and added to the principal amount of the 2017 Notes. While the 2017 Notes are outstanding, the Company is required to maintain an interest reserve in an amount equal to 10% of the original outstanding principal amount of $26.1 million, to be adjusted on an annual basis. As of December 31, 2016 and 2015, there was a balance of $2.6 million in the interest reserve account. This amount is classified as restricted deposits.

The 2017 Notes Indenture contains customary affirmative and negative covenants for agreements of this type and events of default, including, restrictions on disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments, unless the Company receives the prior approval of the required holders. For the years ended December 31, 2016 and 2015, the Company was in compliance with the covenants. The 2017 Notes Indenture also contains limitations on the ability of the holder to assign or otherwise transfer its interest in the 2017 Notes. The 2017 Notes are secured by a lien on substantially all of the assets of the Company and is guaranteed by Agri-Energy and Gevo Development (together, the "Guarantor Subsidiaries" or "Guarantors"). On June 6, 2014, in connection with the issuance of the 2017 Notes, the Company and the Guarantor Subsidiaries entered into a Pledge and Security Agreement in favor of the collateral trustee. The collateral pledged includes substantially all of the assets of the Company and the Guarantor Subsidiaries, including intellectual property and real property. Agri-Energy has also entered into a mortgage with respect to the real property located in Luverne Minnesota.

The holders of the 2017 Notes may, at any time until the close of business on the business day immediately preceding the maturity date, convert the principal amount of the 2017 Notes, or any portion of such principal amount which is at least $1,000, into shares of the Company's common stock. Upon conversion of the 2017 Notes, the Company will deliver shares of common stock at a conversion rate of 0.0029 shares of common stock per $1.00 principal amount of the 2017 Notes (equivalent to a conversion price of approximately $344.83 per share of common stock). Such conversion rate is subject to adjustment in certain circumstances, including in the event that there is a dividend or distribution paid on shares of the common stock or a subdivision, combination or reclassification of the common stock. The Company also has the right to increase the conversion rate (i) by any amount for a period of at least 20 business days if the Company's board of directors determines that such increase would be in the Company's best interest or (ii) to avoid or diminish any income tax to holders of shares of common stock or rights to purchase shares of common stock in connection with any dividend or distribution. In addition, subject to certain conditions described herein, each holder who exercises its option to voluntarily convert its 2017 Notes will receive a make-whole payment in an amount equal to any unpaid interest that would otherwise have been payable on such 2017 Notes through the maturity date (a "Voluntary Conversion Make-Whole Payment"). Subject to certain limitations, the Company may pay any Voluntary Conversion Make-Whole Payments either in cash or in shares of common stock, at its election.

The Company has the right to require holders of the 2017 Notes to convert all or part of the 2017 Notes into shares of its common stock if the last reported sales price of the common stock over any 10 consecutive trading days equals or exceeds 150% of the applicable conversion price (a "Mandatory Conversion"). Each holder whose 2017 Notes are converted in a Mandatory Conversion will receive a make-whole payment for the converted notes in an amount equal to any unpaid interest that would have otherwise been payable on such 2017 Notes through the maturity date (a "Mandatory Conversion Make-Whole Payment"). Subject to

certain limitations, the Company may pay any Mandatory Conversion Make-Whole Payments either in cash or in shares of common stock, at its election. The Company did not require any holders to convert in 2014, 2015 or 2016.

If a fundamental change of the Company occurs, the holders of 2017 Notes may require the Company to repurchase all or a portion of the 2017 Notes at a cash repurchase price equal to 100% of the principal amount of such 2017 Notes, plus accrued and unpaid interest, if any, through, but excluding, the repurchase date, plus a cash make-whole payment for the repurchased 2017 Notes in an amount equal to any unpaid interest that would otherwise have been payable on such convertible 2017 Notes through the maturity date. A fundamental change includes, among other things, the Company's common stock ceasing to be listed on a national securities exchange. See Note 19 *Subsequent Events* for information on the Company's listing status.

On July 31, 2014, January 28, 2015, May 13, 2015, November 12, 2015, December 7, 2015, March 28, 2016 and September 7, 2016, we entered into amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by us under such additional warrants. In connection with the November 12, 2015 amendments, we did not issue any warrants or incur any indebtedness.

On June 1, 2015, the Company entered into further amendments to the 2017 Notes Indenture to, among other things, permit (i) the execution, delivery, and performance of the FCStone Agreements (as defined below) and the related Guaranty (as defined below), (ii) the incurrence of indebtedness by the Company and Agri-Energy pursuant thereto and (iii) the making of the investments by the Company and Agri-Energy thereunder.

On August 22, 2015, the Company entered into further amendments to the 2017 Notes Indenture to, among other things, permit (i) the execution, delivery, and performance of the License Agreement (as defined below) and (ii) the exchange of all or any portion of the 2022 Notes for common stock issued by the Company.

In connection with the transactions described above, the Company also entered into a Registration Rights Agreement, dated May 9, 2014 (the "Registration Rights Agreement"), pursuant to which the Company filed a registration statement on Form S-3 registering the resale of approximately 60,000 shares of the Company's common stock which are issuable under the 2017 Notes. This registration statement was declared effective on July 25, 2014.

The Company has elected the fair value option for accounting of the 2017 Notes in order for management to mitigate income statement volatility caused by measurement basis differences between the embedded instruments or to eliminate complexities of applying certain accounting models. Accordingly, the principal amount of 2017 Notes outstanding at December 31, 2016 of $26.1 million has been recorded at its estimated fair value of $25.8 million and is included in the 2017 Notes recorded at fair value on the consolidated balance sheets at December 31, 2016. Debt issuance costs of $1.5 million were expensed at issuance and a gain of $4.2 million has been recognized in subsequent periods in connection with the election of the fair value option. Change in the estimated fair value of the 2017 Notes represents an unrealized gain included in gain (loss) from change in fair value of 2017 Notes in the consolidated statements of operations. The fair value of the 2017 Notes at the issuance date were equal to the net proceeds from the loan. During the twelve months ended December 31, 2016, the Company incurred cash interest expense of $2.6 million related to the 2017 Notes.

The following table sets forth the inputs to the lattice model that were used to value the 2017 Notes for which the fair value option was elected.

	December 31,	
	2016	**2015**
Stock price	$ 3.40	$ 12.40
Conversion Rate per $1,000	2.90	2.90
Conversion Price	$ 344.83	$ 344.83
Maturity date (1)	March 15, 2017	March 15, 2017
Risk-free interest rate	0.49%	0.74%
Estimated stock volatility	80.0%	140.0%
Estimated credit spread	20.0%	30.0%

(1) The 2017 Notes were valued as of December 31, 2016, and used assumptions that existed at that time. The impact of our 2017 Notes Extension Transaction with the 2017 Notes holders (see Note 19 *Subsequent Events*) on certain key features, including extension of the maturity date to June 23, 2017 was not included in the assumptions used to value the 2017 Notes.

The following table sets forth information pertaining to the 2017 Notes which is included in the Company's consolidated balance sheets (in thousands).

	Principal Amount of 2017 Notes	Change in Estimated Fair Value	Total
Balance - December 31, 2015	$ 26,108	$ (4,543)	$ 21,565
Loss from change in fair value of debt	-	$ 4,204	4,204
Balance - December 31, 2016	$ 26,108	$ (339)	25,769

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the 2017 Notes. For example, the estimated fair value will generally decrease with: (1) a decline in the stock price; (2) decreases in the estimated stock volatility; and (3) a decrease in the estimated credit spread. The change in the estimated fair value of the 2017 Notes during the year ended December 31, 2016, represents an unrealized loss which has been recorded as a loss from change in fair value of 2017 Notes in the consolidated statements of operations.

Secured Debt

On September 30, 2016, Agri-Energy voluntarily paid off in full all outstanding amounts owed under the Amended Agri-Energy Loan Agreement and all material commitments and obligations under the Loan and Security Agreement and associated documents were terminated. As a result, at September 30, 2016, the Amended Agri-Energy Loan Agreement had a principal balance of zero. In connection with the repayment, TriplePoint Capital LLC ("TriplePoint") terminated all of its security interests under the Amended Agri-Energy Loan Agreement (including any mortgages and membership interest pledges). In addition, the guaranties by the Company and Gevo Development of the obligations under the Amended Agri-Energy Agreement were also terminated.

The following table sets forth information pertaining to the Company's secured debt issued to TriplePoint which is included in the Company's consolidated balance sheets (in thousands).

	December 31,	
	2016	2015
Secured debt		
TriplePoint - May 2014 Advance	$ -	$ 504
Total secured debt	-	504
Less:		
Unamortized debt discounts and issue costs	-	(21)
	-	483
Less current portion of debt	-	(330)
Long-term portion of debt	$ -	$ 153

Debt discounts associated with the issuance of the Company's secured debt and convertible notes are recorded on the consolidated balance sheets as a reduction to related debt balances. The Company amortizes debt discount to interest expense over the term of the debt or expected life of the debt using the effective interest method. The unamortized debt discount at December 31, 2015 comprised a $17.0 current portion and $2.0 long-term portion. Unamortized debt issue costs totaled $2.0 (see Note 2 for more information).

Amended Agri-Energy Loan Agreement. In October 2011, the Original Agri-Energy Loan Agreement was amended and restated (the "Amended Agri-Energy Loan Agreement") to provide Agri-Energy with additional term loan facilities of up to $15.0 million to pay a portion of the costs, expenses, and other amounts associated with the retrofit of the Agri-Energy Facility to produce isobutanol. In October 2011, Agri-Energy borrowed $10.0 million under the additional term loan facilities which originally matured in October 2015. In January 2012, Agri-Energy borrowed an additional $5.0 million under the additional term loan facilities which originally matured December 2015, bringing the total borrowed under the additional term loan facilities to $15.0 million.

May 2014 Amendments. In May 2014, the Company and its subsidiaries entered into a Consent Under and Third Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement and Omnibus Amendment to Loan Documents (the "2014 Amendment") pursuant to which TriplePoint amended its agreements with the Company and its subsidiaries and consented

to (a) the execution, delivery, and performance of the Loan Agreement, the Exchange and Purchase Agreement, the Registration Rights Agreement, the 2017 Notes Indenture, the 2017 Notes, and the other documents related thereto (collectively the "Senior Loan Documents"); (b) the incurrence of the Term Loan with Whitebox and any other indebtedness under the Senior Loan Documents (collectively, the "Senior Indebtedness"); (c) the consummation of the exchange of the Term Loan for the 2017 Notes; (d) the offering, issuance and sale of the 2017 Notes to Whitebox and the conversion of any 2017 Notes into the common stock of the Company pursuant to the terms of the 2017 Notes Indenture; (e) the guaranty of the Senior Indebtedness provided by the Guarantors; (f) the liens granted by each of the Company and the Guarantors to secure the Senior Indebtedness and the other obligations under the Senior Loan Documents; (g) the consummation of any transactions contemplated by, and the terms of, the Senior Loan Documents by the Company and the Guarantors; and (h) the payment and performance of any of the obligations under the Senior Loan Documents by the Company and the Guarantors, including the making of dividends and distributions by the Guarantors to the Company for the purpose of enabling the Company to make any payments under the Senior Loan Documents.

As part of the 2014 Amendment, the Company repaid $9.8 million in principal payments due under the foregoing loan agreements with TriplePoint and entered into an amended loan agreement with TriplePoint. At such time, debt issuance costs were written off. At December 31, 2014, the amended loan agreement had a principal balance of $0.8 million, which amortizes over 36 months and bears interest at a rate equal to 9% per annum and matures in May 2017. There were no additional concessions or terms of the agreement which would require recognition of a gain or loss due to this amended agreement. Prior to the pay off of all outstanding amounts, Agri-Energy had granted TriplePoint a junior security interest in all of its assets as security for its obligations under the Amended Agri-Energy Loan Agreement.

On July 31, 2014, January 28, 2015, May 13, 2015, November 11, 2015, December 7, 2015, March 28, 2016 and September 7, 2016, we entered into further amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by us under such additional warrants. In connection with the November 11, 2015 amendments, we did not issue any warrants or incur any indebtedness.

2022 Notes

The following table sets forth information pertaining to the 2022 Notes which is included in the Company's consolidated balance sheets (in thousands). Refer to Note 19 *Subsequent Events*, for additional information.

	Principal Amount of 2022 Notes	Debt Discount	Debt Issue Costs	Total
Balance - December 31, 2015	$ 22,400	$ (7,764)	$ (295)	$ 14,341
Amortization of debt discount	-	4,026	-	4,026
Amortization of debt issue costs	-	-	156	156
Exchange of 2022 Notes	$ (12,825)	-	-	(12,825)
Write-off of debt discount and debt issue costs associated with extinguishment of debt	-	2,431	92	2,523
Balance - December 31, 2016	$ 9,575	$ (1,307)	$ (47)	$ 8,221

In July 2012, the Company sold $45.0 million in aggregate principal amount of 2022 Notes, with net proceeds of $40.9 million, after accounting for $2.7 million and $1.4 million of discounts and issue costs, respectively. The 2022 Notes bear interest at 7.5% which is to be paid semi-annually in arrears on January 1 and July 1 of each year. The 2022 Notes will mature in July 2022, unless earlier repurchased, redeemed or converted. During the years ended December 31, 2016, 2015, and 2014, the Company recorded $4.0 million, $3.7 million, and $2.8 million , respectively, of non-cash interest expense related to the amortization of debt discounts and issue costs and recorded $1.2 million, $1.8 million and $2.0 million, respectively, of cash interest expense related to the 2022 Notes. The amortization of debt issue costs and debt discounts and cash interest are included as a component of interest expense in the consolidated statements of operations. The Company amortizes debt discounts and debt issue costs associated with the 2022 Notes using an effective interest rate of 40% from the issuance date through July 2017, a five-year period, which represents the date the holders can require the Company to repurchase the 2022 Notes.

The 2022 Notes are convertible at an initial conversion rate of 0.5856 shares of the Company's common stock per $1,000 principal amount of 2022 Notes, subject to adjustment in certain circumstances as described in the Indenture. This is equivalent to an initial conversion price of approximately $1,707.65 per share of common stock. Holders may convert the 2022 Notes at any time prior to the close of business on the third business day immediately preceding the maturity date of July 1, 2022.

If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment. The Coupon Make-Whole Payment is equal to the sum of the present values of the number of semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. The Company may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at its election. If the Company elects to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of the Company's common stock for the 10 trading days preceding the date of conversion. In November 2015, we issued 55,392 shares of common stock to redeem 2,500 bonds at a face value of $1,000 per bond and reduce the liability of the 2022 Notes by $2.5 million. The net loss on the extinguishment of the 2022 Notes was $0.05 million. In February 2015, we issued 8,502 shares of common stock to convert 2,000 bonds at a face value of $1,000 per bond to reduce the liability of the 2022 Notes by $2.0 million. The net gain on the extinguishment of the 2022 Notes was $0.3 million. In September 2016, the Company issued 699,968 shares of common stock in exchange for the redemption of $11.4 million of the 2022 Notes. The net loss on the extinguishment of the 2022 Notes was $0.9 million. In December 2016, the Company issued 251,832 shares of common stock in exchange for the redemption of $1.4 million of the 2022 Notes. The net gain on the extinguishment of the 2022 Notes was $0.1 million.

If a Make-Whole Fundamental Change (as defined in the Indenture) occurs and a holder elects to convert its 2022 Notes prior to July 1, 2017, the applicable conversion rate will increase based upon reference to the table set forth in Schedule A of the Indenture. In no event will the conversion rate increase to more than 0.6734 per $1,000 principal amount of 2022 Notes.

The Company shall have a provisional redemption right ("Provisional Redemption") to redeem, at its option, all or any part of the 2022 Notes at a price payable in cash, beginning on July 1, 2015 and prior to July 1, 2017, provided that the Company's common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day immediately prior to the date of the redemption notice exceeds 150% of the conversion price in effect on such trading day. On or after July 1, 2017, the Company shall have an optional redemption right ("Optional Redemption") to redeem, at its option, all or any part of the 2022 Notes at a price payable in cash. The price payable in cash for the Optional Redemption or Provisional Redemption is equal to 100% of the principal amount of 2022 Notes redeemed plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

If there is an Event of Default (as defined in the Indenture) under the 2022 Notes, the holders of not less than 25% in principal amount of Outstanding Notes (as defined in the Indenture) by notice to the Company and the trustee may, and the trustee at the request of such holders shall, declare the principal amount of all the Outstanding Notes and accrued and unpaid interest thereon to be due and payable immediately. There have been no events of default as of December 31, 2016.

Outstanding Obligations

The following sets forth the Company's obligations to repay principal by year relating to the Convertible Notes at December 31, 2016 (in thousands).

	Amount
2017	$ 26,108
2018	-
2019	-
2020	-
2021	-
Thereafter	9,575
Total	$ 35,683

9. Capital Stock

As of December 31, 2016, the Company has authorized 250.0 million and 10.0 million shares of common and preferred stock, respectively. The holders of the Company's common stock have one vote per share. The board of directors has the authority, without action by its stockholders, to designate and issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. The Company's amended and restated certificate of incorporation provides that the Company's board of directors will be divided into three classes, with staggered three-year terms and provides that all stockholder actions must be effected at a duly called meeting of the stockholders and not by a written consent. The amended and restated certificate of incorporation also provides that only the board of directors may call a special meeting of the stockholders and requires the approval of

either a majority of the directors then in office or 66 2/3% of the voting power of all then outstanding capital stock for the adoption, amendment or repeal of any provision of the Company's amended and restated bylaws. In addition, the amendment or repeal of certain provisions of the Company's amended and restated certificate of incorporation requires the approval of 66 2/3% of the voting power of all then outstanding capital stock.

Common Stock Offerings

In September 2016, we issued 1,240,000 shares of common stock, 712,503 Series I Warrants and 185,000 Series J Warrants to purchase the same number of shares of our common stock. As of December 31, 2016, the Series I Warrants had an exercise price of $11.00 per share, were exercisable from the date of issuance and expire on September 13, 2021. The Series J Warrants were fully exercised in the third quarter of 2016. The gross proceeds to us were approximately $15.6 million, not including any future proceeds from the exercise of the warrants.

In June 2016, we closed a best efforts public offering of approximately 1,054,023 shares of common stock at $9.00 per share. We received gross proceeds from this offering of approximately $9.5 million.

In April 2016, we issued and sold 186,071 shares of common stock, Series F warrants to purchase an additional 514,644 shares of common stock (the "Series F Warrants"), Series G warrants to purchase an additional 328,571 shares of common stock (the "Series G Warrants") and Series H warrants to purchase an additional 1,029,286 shares of common stock (the "Series H Warrants"). As of December 31, 2016, the Series F Warrants had an exercise price of $5.80 per share, were exercisable from the date of issuance and expire on April 1, 2021. The Series G Warrants were fully exercised in the second quarter of 2016. The Series H Warrants expired on October 1, 2016. We received gross proceeds of approximately $3.5 million, not including any future proceeds from exercise of the warrants.

In December 2015, we issued and sold 102,500 shares of common stock shares, Series D warrants to purchase an additional 502,500 shares of common stock (the "Series D Warrants") and Series E warrants to purchase an additional 400,000 shares of common stock (the "Series E Warrants"). As of December 31, 2016, the Series D Warrants have an exercise price of $2.00 per share, are exercisable from the date of original issuance and will expire December 11, 2020. The Series E Warrants were fully exercised in the second quarter of 2016. The gross proceeds from this offering were approximately $9.97 million, not including any future proceeds from the exercise of warrants.

In May 2015, we issued and sold 215,000 shares of common stock and Series C warrants to purchase an additional 21,500 shares of common stock. The shares of common stock and the Series C Warrants were sold together as common stock units, but were immediately separable and issued separately. The Series C Warrants have an exercise price of $27.80 per share and are exercisable from the date of the original issuance and will expire on May 19, 2020. The gross proceeds from this offering were approximately $17.2 million, not including any future proceeds from the exercise of warrants.

In February 2015, we issued and sold 110,833 shares of common stock, Series A warrants to purchase an additional 110,833 shares of common stock and Series B warrants to purchase an additional 110,833 shares of common stock. The shares of common stock, the Series A Warrants and the Series B Warrants were sold together as common stock units, but were immediately separable and issued separately. As of December 31, 2016, the Series A Warrants have an exercise price of $5.80 per share, are exercisable from the date of original issuance and will expire on February 3, 2020. The Series B Warrants expired on August 3, 2015. The gross proceeds from this offering were approximately $6.7 million, not including any future proceeds from the exercise of the warrants.

In August 2014, we issued and sold 100,000 shares of common stock and warrants to purchase an additional 50,000 shares of common stock (the "2014 Warrants") in a firm commitment underwritten public offering. The 2014 Warrants have an exercise price of $36.20 per share, are exercisable from the date of the original issuance and will expire on August 5, 2019. The gross proceeds from this offering were approximately $18.0 million, not including any future proceeds from the exercise of the 2014 Warrants.

In December 2013, we issued and sold 71,013 shares of common stock and warrants to purchase an additional 71,013 shares of common stock (the "2013 Warrants" and together with the 2014 Warrants, the Series A Warrants, the Series B Warrants, the Series C Warrants, the Series D Warrants, the Series E Warrants, the Series F warrants, the Series G Warrants, the Series H Warrants, the Series I Warrants, and the Series J Warrants, the "Warrants") in a firm commitment underwritten public offering. The 2013 Warrants have certain anti-dilution provisions. As of December 31, 2016, the 2013 Warrants have an exercise price of $49.80, are exercisable from the date of the original issuance and will expire on December 16, 2018. This offering resulted in net proceeds of $26.4 million

after deducting $2.0 million in underwriting discounts and commissions and other offering costs, not including any future proceeds from the exercise of the 2013 Warrants.

In July 2012, the Company issued 41,667 shares of its common stock, resulting in net proceeds of $57.4 million, after deducting underwriting discounts and commissions and other offering costs.

Common Stock Warrants

The following table sets forth a summary of outstanding warrants to purchase shares of the Company's common stock as of December 31, 2016.

	Issue Date	Expiration Date	Outstanding	Exercise Price
TriplePoint Capital LLC	August 2010	August 2017	666	$ 17.70
TriplePoint Capital LLC	October 2011	October 2018	523	$ 17.70
TriplePoint Capital LLC	January 2012	October 2018	104	$ 17.70
Genesis Select	June 2013	June 2018	100	$ 24.45
2013 Warrants	December 2013	December 2018	55,774	$ 49.80
2014 Warrants	August 2014	August 2019	19,462	$ 36.20
Series A Warrants	February 2015	February 2020	11,417	$ 5.80
Series C Warrants	May 2015	May 2020	21,500	$ 27.80
Series D Warrants	December 2015	December 2020	930	$ 2.00
Series E Warrants	December 2015	December 2016	-	$ -
Series F Warrants	April 2016	April 2021	280,787	$ 5.80
Series G Warrants	April 2016	April 2017	-	$ -
Series H Warrants	April 2016	October 2016	-	$ -
Series I Warrants	September 2016	September 2021	712,503	$ 11.00
Series J Warrants	September 2016	September 2017	-	$ -
Total			1,103,766	

See Note 7 for a discussion of all Warrants issued and subsequent changes in the exercise price.

10. Equity Incentive Plans

2006 Omnibus Securities and Incentive Plan. During 2006, the Company established the Gevo, Inc. 2006 Omnibus Securities and Incentive Plan (the "2006 Plan"). Pursuant to the 2006 Plan, the Company granted stock awards to employees and directors of the Company. Upon adoption of the Gevo, Inc. 2010 Stock Incentive Plan (as amended, the "2010 Plan"), no further grants can be made under the 2006 Plan. At December 31, 2016, a total of 837 shares of Gevo common stock were reserved for issuance upon the exercise of outstanding stock option awards under the 2006 Plan. To the extent outstanding awards under the 2006 Plan expire, or are forfeited, cancelled, settled, or become unexercisable without the issuance of shares, the shares of common stock subject to such awards will be available for future issuance under the 2010 Plan.

2010 Stock Incentive Plan. In February 2011, the Company's stockholders approved the 2010 Plan, which was subsequently amended in June 2013, and amended and restated in July 2015, June 2016 and November 2016, and provides for the grant of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units and other equity awards to employees and directors of the Company. Stock options granted under the 2010 Plan have an exercise price that is at least equal to the fair market value of the Company's common stock on the date the stock option is granted and expire ten years after the date of grant. At December 31, 2016, a total of 16,078 shares of Gevo common stock were reserved for issuance upon the exercise of outstanding stock option awards under the 2010 Plan, and an additional 160,873 shares were available for grant.

Employee Stock Purchase Plan. In February 2011, the Company's stockholders approved the ESPP. The offering periods for the ESPP are from January 1 to June 30 and from July 1 to December 31 of each calendar year. The Company has reserved 4,285 shares of common stock for issuance under the ESPP, of which 3,802 shares as of December 31, 2016 are available for future issuance. The purchase price of the common stock under the ESPP is 85% of the lower of the fair market value of a share of common stock on the first or last day of the purchase period.

11. Stock-Based Compensation

Stock-Based Compensation Expense. The following table sets forth the Company's stock-based compensation expense (in thousands).

	Year Ended December 31,		
	2016	2015	2014
Stock options and ESPP awards			
Research and development	$ 62	$ 131	$ 303
Selling, general and administrative	321	401	837
Restricted stock awards			
Research and development	116	576	487
Selling, general and administrative	143	1,467	1,233
Restricted stock units			
Research and development	28	10	-
Selling, general and administrative	216	62	-
Total stock-based compensation	$ 886	$ 2,647	$ 2,860

Determining Fair Value of Share-Based Payment Awards. The following table sets forth the Black-Scholes option pricing model assumptions and resulting grant date fair value for stock options granted.

	Year Ended December 31,		
	2016	2015	2014
Risk-free interest rate	1.49%	1.62%	1.74%
Expected dividend yield	None	None	None
Expected volatility factor	106.70%	106.89%	71.13%
Expected option life (in years)	5.77	5.77	5.75
Weighted average grant date fair value	$ 5.66	$ 35.40	$ 267.00

Due to the Company's limited history of grant activity, the expected life of options granted was estimated using the "simplified method" in accordance with SEC Staff Accounting Bulletin 110, where the expected life equals the arithmetic average of the vesting term and the original contractual term of the options. The volatility factor was determined based upon management's estimate using inputs from comparable public companies. The risk-free interest rate assumption is determined based upon observed interest rates appropriate for the expected term of the Company's employee stock options. The dividend yield assumption is based on the Company's history of dividend payouts.

An annual forfeiture rate is estimated at the time of grant for all share-based payment awards, and revised, if necessary, in subsequent periods if the actual forfeiture rate differs from the Company's estimate. Forfeitures have been estimated by the Company based upon historical and expected forfeiture experience. Estimated forfeiture rates used for the periods presented were from 0% to 5%.

Stock Option Award Activity. Stock option activity under the Company's option plans at December 31, 2016 and changes during the year ended December 31, 2016 were as follows.

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at December 31, 2015	24,089	$ 535.80		$ -
Granted	1,250	5.66		
Canceled or forfeited	(8,424)	951.23		
Exercised	-	-		
Options outstanding at December 31, 2016	16,915	$ 289.73	7.54	$ -
Options exercisable at December 31, 2016	9,095	$ 504.80	6.61	$ -
Options vested and expected to vest at December 31, 2016	16,915	$ 289.73	7.54	$ -

The aggregate intrinsic values in the table above represent the total pre-tax intrinsic values (the difference between the closing price of Gevo's common stock on the last trading day of the 2016 calendar year and the exercise price, multiplied by the number of in-the-money stock option shares) that would have been received by the option holders had all in-the-money outstanding stock options been exercised on December 31, 2016. The total intrinsic value of options exercised during the years ended December 31, 2016, 2015, and 2014 was $0.0 million.

The following table summarizes information associated with outstanding and exercisable stock options at December 31, 2016.

	Options Outstanding			Options Exercisable		
Range of Exercise Prices	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life in Years
$0.00 to $51.00	14,450	$ 40.62	8.61	6,630	$ 41.68	8.58
$105.00 to $147.00	80	$ 144.90	0.32	80	$ 144.90	0.32
$264.00 to $438.00	586	$ 368.79	0.44	586	$ 368.87	0.44
$462.00 to $1,845.00	801	$ 715.51	2.31	801	$ 715.51	2.31
$2,331.00 to $3,426.00	637	$ 2,938.98	0.39	637	$ 2,938.98	0.39
$3,801.00 to $5,742.00	361	$ 4,556.47	2.26	361	$ 4,556.47	2.26
	16,915			9,095		

As of December 31, 2016, $0.7 million of total unrecognized compensation cost related to stock options is expected to be recognized as an expense by the Company in the future over a weighted-average period of approximately one year.

There is a maximum contractual term of 10 years for the share options. The Company settles stock option exercises with newly issued common shares. No tax benefits were realized by the Company in connection with these exercises as the Company maintains net operating loss carryforwards and has established a valuation allowance against the entire tax benefit.

Restricted Stock. The Company periodically grants restricted stock awards to employees and directors. The vesting period for restricted stock awards granted may be based upon a service period or based upon the attainment of performance objectives. The Company recognizes stock-based compensation over the vesting period, generally three to six years, for awards that vest based upon a service period. For performance based restricted stock awards, the Company recognizes expense over the requisite service period.

Non-vested restricted stock awards at December 31, 2016 and changes during the year ended December 31, 2016 were as follows.

	Number of Shares	Weighted-Average Grant-Date Fair Value
Non-vested at December 31, 2015	16,413	$ 54.80
Granted	-	-
Vested	(6,816)	82.95
Canceled or forfeited	(774)	46.16
Non-vested at December 31, 2016	8,823	$ 47.51

The total fair value of restricted stock that vested during the years ended December 31, 2016, 2015 and 2014 was $1.7 million, $1.4 million, and $1.5 million , respectively. As of December 31, 2016, the total unrecognized compensation expense, net of estimated forfeitures, relating to restricted stock awards was $0.4 million, which is expected to be recognized over a weighted-average period of approximately two years.

12. Gevo Development

Gevo, Inc. currently owns 100% of the outstanding equity interests of Gevo Development.

Gevo, Inc. made capital contributions to Gevo Development of $12.3 million, $7.9 million, and $26.5 million , respectively, during the years ended December 31, 2016, 2015, and 2014.

The following table sets forth (in thousands) the net loss incurred by Gevo Development (including Agri-Energy after September 22, 2010, the closing date of the acquisition) which has been fully allocated to Gevo, Inc.'s capital contribution account based upon its capital contributions (for the period prior to September 2010) and 100% ownership (for the period after September 22, 2010).

	Year Ended December 31,		
	2016	2015	2014
Gevo Development Net Loss	$ (12,983)	$ (12,294)	$ (14,778)

The accounts of Agri-Energy are consolidated within Gevo Development as a wholly owned subsidiary which is then consolidated into Gevo, Inc. As of December 31, 2016, Gevo Development does not have any assets that can be used only to settle obligations of Gevo Development.

13. Redfield Energy, LLC

In June 2011, Gevo Development entered into an isobutanol joint venture agreement (the "Joint Venture Agreement") with Redfield Energy, LLC, a South Dakota limited liability company ("Redfield"), and executed the second amended and restated operating agreement of Redfield (together with the Joint Venture Agreement, the "Joint Venture Documents"). Under the terms of the Joint Venture Documents, Gevo Development and Redfield have agreed to work together to retrofit Redfield's approximately 50 million gallon per year ethanol production facility located near Redfield, South Dakota (the "Redfield Facility") for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the "Class G Units") to Gevo Development. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield's 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time Gevo Development anticipates consolidating Redfield's operations because Gevo anticipates it will control the activities that are most significant to the entity.

Gevo Development will be responsible for all costs associated with the retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to

ensure that the facility is in compliance with applicable environmental laws. The Company anticipates that the Redfield Facility will continue its current ethanol production activities during much of the retrofit. Once the retrofit assets have been installed, the ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the "Performance Testing Phase"). During the Performance Testing Phase, Gevo Development will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the "Facility Payments"). Gevo Development has also agreed to maintain an escrow fund during the Performance Testing Phase as security for its obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) Gevo Development will have the right to appoint a total of four members of Redfield's 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield's profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol has begun. Additionally, Gevo, Inc. will license the technology necessary to produce isobutanol at the Redfield Facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, Gevo Development will forfeit the Class G Units and lose the value of its investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the retrofit of the Redfield Facility.

As of December 31, 2016, the Company has incurred $0.4 million in preliminary project engineering and permitting process costs for the future retrofit of the Redfield Facility which have been recorded on the Company's consolidated balance sheets in deposits and other assets. Gevo has no obligation to Retrofit the Redfield Facility.

14. Income Taxes

There is no provision for income taxes because the Company has incurred operating losses since inception. As of December 31, 2016, the Company had federal and state net operating loss carryforwards of approximately $332.1 million which may be used to offset future taxable income. The Company also had federal research and development tax credit carryforwards and other federal tax credit carryforwards which aggregate to $3.5 million at December 31, 2016. These carryforwards expire at various times through 2036 and may be limited in their annual usage by Section 382 of the Internal Revenue Code, as amended, relating to ownership changes.

The following table sets forth the tax effects of temporary differences that give rise to significant portions of the Company's net deferred tax assets (in thousands).

	December 31,		
	2016	2015	2014
Deferred tax assets:			
Net operating loss carryforwards	$ 133,514	$ 123,647	$ 115,870
Research and other credits	3,482	5,610	6,047
Other temporary differences	2,319	4,804	(2,478)
Deferred tax assets - before valuation allowance	139,315	134,061	119,439
Valuation allowance	(139,315)	(134,061)	(119,439)
Net deferred tax assets - after valuation allowance	$ -	$ -	$ -

The Company's deferred tax assets represent an unrecognized future tax benefit. The Company recognizes uncertain tax positions net, against any operating losses or applicable research credits as they arise. Currently, there are no uncertain tax positions recognized at December 31, 2016. The Company has provided a full valuation allowance on its deferred tax assets at December 31,

2016 and 2015, as management believes it is more likely than not that the related deferred tax asset will not be realized. The reported amount of income tax expense differs from the amount that would result from applying domestic federal statutory tax rates to pretax losses, primarily because of changes in the valuation allowance.

The following table sets forth reconciling items from income tax computed at the statutory federal rate.

	Year Ended December 31,		
	2016	2015	2014
Federal income tax at statutory rate	35.0%	35.0%	35.0%
State income taxes, net of federal benefits	2.9%	5.4%	4.5%
Research and other credits	-5.8%	-1.2%	-1.3%
Permanent deductions	-18.0%	-4.0%	-2.2%
Valuation allowance	-14.1%	-35.2%	-36.0%
Effective tax rate	0.0%	0.0%	0.0%

Accounting literature regarding liabilities for unrecognized tax benefits provides guidance for the recognition and measurement in financial statements of uncertain tax positions taken or expected to be taken in a tax return. The Company's evaluation was performed for the tax periods from inception to December 31, 2016, which remain subject to examination by major tax jurisdictions as of December 31, 2016.

The Company may from time to time be assessed interest or penalties by major tax jurisdictions, although there have been no such assessments historically, with any material impact to its financial results. The Company would recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying consolidated statements of operations. Accrued interest and penalties would be included within the related tax liability line in the consolidated balance sheets.

15. Employee Benefit Plan

The Company's employees participate in the Gevo, Inc. 401(k) Plan (the "401(k) Plan"). Subject to certain eligibility requirements, the 401(k) Plan covers substantially all employees after three months of service with quarterly entry dates. Employee contributions are deposited by the Company into the 401(k) Plan and may not exceed the maximum statutory contribution amount. The Company may make matching and/or discretionary contributions to the 401(k) Plan. Effective January 2013, the Company elected to cease providing an employer match.

16. Commitments and Contingencies

Leases. During the year ended December 31, 2012, the Company entered into a six year software license agreement. The Company concluded that the software license agreement qualifies as a capital lease. Accordingly, at December 31, 2016 and 2015, the Company had capital lease liabilities of $0.1 million and $0.2 million included in accounts payable and accrued liabilities and other long-term liabilities, respectively on its consolidated balance sheet.

The Company has an operating lease for its office, research, and production facility in Englewood, Colorado (the "Colorado Facility") with a term expiring in July 2021. The Company also maintains a corporate apartment in Colorado, which has a lease term expiring during the next 12 months.

Rent expense for the years ended December 31, 2016, 2015 and 2014 was $1.7 million, $1.6 million, and $0.5 million, respectively. The Company recognizes rent expense on its operating leases on a straight-line basis.

The table below shows the future minimum payments under non-cancelable operating leases and capital leases at December 31, 2016 (in thousands).

	Operating Leases	Capital Lease	Total Lease Payments
2017	1,543	167	1,710
2018	1,421	-	1,421
2019	907	-	907
2020	394	-	394
2021	200	-	200
Thereafter	-	-	-
Total	$ 4,465	$ 167	$ 4,632

Indemnifications. In the ordinary course of its business, the Company makes certain indemnities under which it may be required to make payments in relation to certain transactions. As of December 31, 2016 and 2015, the Company did not have any liabilities associated with indemnities.

In addition, the Company, as permitted under Delaware law and in accordance with its amended and restated certificate of incorporation and amended and restated bylaws, indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such capacity. The duration of these indemnifications, commitments, and guarantees varies and, in certain cases, is indefinite. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that may enable it to recover a portion of any future amounts paid. The Company accrues for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable. No such losses have been recorded to date.

Environmental Liabilities. The Company's operations are subject to environmental laws and regulations adopted by various governmental authorities in the jurisdictions in which it operates. These laws require the Company to investigate and remediate the effects of the release or disposal of materials at its locations. Accordingly, the Company has adopted policies, practices and procedures in the areas of pollution control, occupational health and the production, handling, storage and use of hazardous materials to prevent material environmental or other damage, and to limit the financial liability which could result from such events. Environmental liabilities are recorded when the Company's liability is probable and the costs can be reasonably estimated. No environmental liabilities have been recorded as of December 31, 2016.

17. Fair Value Measurements and Fair Value of Financial Instruments

Accounting standards define fair value, outline a framework for measuring fair value, and detail the required disclosures about fair value measurements. Under these standards, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or most advantageous market. Standards establish a hierarchy in determining the fair market value of an asset or liability. The fair value hierarchy has three levels of inputs, both observable and unobservable. Standards require the utilization of the highest possible level of input to determine fair value.

- Level 1 – inputs include quoted market prices in an active market for identical assets or liabilities.
- Level 2 – inputs are market data, other than Level 1, that are observable either directly or indirectly. Level 2 inputs include quoted market prices for similar assets or liabilities, quoted market prices in an inactive market, and other observable information that can be corroborated by market data.
- Level 3 – inputs are unobservable and corroborated by little or no market data.

These tables present the carrying value and fair value, by fair value hierarchy, of our financial instruments, excluding cash and cash equivalents, accounts receivable and accounts payable at December 31, 2016 and 2015, respectively (in thousands).

		Fair Value Measurements at December 31, 2016 (In thousands)		
	Fair Value at 12/31/2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Recurring:				
Derivative Warrant Liability	$ 2,698	$ -	$ 1,884	$ 814
2017 Notes	$ 25,769	$ -	$ -	$ 25,769
Total Recurring Fair Value Measurements	$ 28,467	$ -	$ 1,884	$ 26,583
Nonrecurring				
Corn and finished goods inventory	$ 1,327	$ 108	$ 1,219	$ -
	$ 1,327	$ 108	$ 1,219	$ -

		Fair Value Measurements at December 31, 2015 (In thousands)		
	Fair Value at 12/31/2015	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Recurring:				
Derivative Warrant Liability	$ 10,493	$ -	$ 4,338	$ 6,155
2017 Notes	$ 21,565	$ -	$ -	$ 21,565
Total Recurring Fair Value Measurements	$ 32,058	$ -	$ 4,338	$ 27,720
Nonrecurring				
Corn and finished goods inventory	$ 1,091	$ 530	$ 561	$ -
	$ 1,091	$ 530	$ 561	$ -

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3) (in thousands)	
	Derivative Warrant Liability	2017 Notes
Opening Balance	**$ 6,155**	**$ 21,565**
Transfers into Level 3	-	-
Transfers out of Level 3	-	-
Total (gains) or losses for the period	-	-
Included in earnings	2,229	4,204
Included in other comprehensive income	-	-
Purchases, issues, sales and settlements	-	-
Purchases	-	-
Issues	2,162	-
Sales	-	-
Settlements	(9,732)	-
Closing balance	**$ 814**	**$ 25,769**

Fair Value Methodology

Inventories. The Company records its corn inventory at fair value only when the Company's cost of corn purchased exceeds the market value for corn. The Company determines the market value of corn and dry distiller's grain based upon Level 1 inputs using quoted market prices. The Company records its ethanol, isobutanol and hydrocarbon inventory at market using Level 2 inputs.

2017 Notes. The Company has estimated the fair value of the 2017 Notes to be $25.8 million and $21.6 million at December 31, 2016 and 2015, respectively, utilizing a binomial lattice model. See Note 8 for the fair value inputs used to estimate the fair value of the 2017 Notes.

2022 Notes Embedded Derivative. The Company had estimated the fair value of the embedded derivative on a stand-alone basis to be $0.0 million at December 31, 2016 and 2015, based upon Level 3 inputs. See Note 6 for the fair value inputs used to estimate the fair value of the 2022 Notes with and without the embedded derivative and the fair value of the embedded derivative.

Derivative Warrant Liability. The Company estimates the fair value the Series A and Series F warrants using a Monte-Carlo model (Level 3) while all other warrants are valued using a Black-Scholes model (Level 2).

Cash and Cash Equivalents, Accounts Receivable, Restricted Deposits and Accounts Payable. The carrying values of our cash and cash equivalents, accounts receivable, restricted deposits and accounts payable approximate their fair values due to their short maturities.

While the Company believes that its valuation methods are appropriate and consistent with other market participants, it recognizes that the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

18. Segments

We have determined that we have two operating segments: (i) Gevo, Inc. segment; and (ii) Gevo Development/Agri-Energy segment. We organize our business segments based on the nature of the products and services offered through each of our consolidated legal entities. Transactions between segments are eliminated in consolidation.

Gevo Segment. Our Gevo segment is responsible for all research and development activities related to the future production of isobutanol, including the development of our proprietary biocatalysts, the production and sale of biojet fuel, our Retrofit process and the next generation of chemicals and biofuels that will be based on our isobutanol technology. Our Gevo segment also develops, maintains and protects our intellectual property portfolio, develops future markets for our isobutanol and provides corporate oversight services.

Gevo Development/Agri-Energy Segment. Our Gevo Development/Agri-Energy segment is currently responsible for the operation of our Agri-Energy Facility and the production of ethanol, isobutanol and related products.

The Company's chief operating decision maker is provided with and reviews the financial results of each of the Company's consolidated legal entities, Gevo, Inc., Gevo Development, LLC, and Agri-Energy, LLC. The Company organizes its business segments based on the nature of the products and services offered through each of its consolidated legal entities. All revenue is earned, and all assets are held, in the U.S.

	Year Ended December 31,		
	2016	2015	2014
Revenues:			
Gevo	$ 2,425	$ 2,911	$ 4,718
Gevo Development / Agri-Energy	24,788	27,226	23,548
Consolidated	$ 27,213	$ 30,137	$ 28,266
Loss from operations:			
Gevo	$ (11,045)	$ (19,723)	$ (26,567)
Gevo Development / Agri-Energy	(12,940)	(12,204)	(13,210)
Consolidated	$ (23,985)	$ (31,927)	$ (39,777)
Interest expense:			
Gevo	$ 7,789	$ 8,147	$ 10,446
Gevo Development / Agri-Energy	48	96	1,578
Consolidated	$ 7,837	$ 8,243	$ 12,024
Depreciation and amortization expense:			
Gevo	$ 738	$ 856	$ 937
Gevo Development / Agri-Energy	6,009	5,717	3,943
Consolidated	$ 6,747	$ 6,573	$ 4,880
Acquisitions of plant, property and equipment:			
Gevo	$ 350	$ 7	$ 116
Gevo Development / Agri-Energy	5,588	1,457	4,778
Consolidated	$ 5,938	$ 1,464	$ 4,894

	December 31,	
	2016	2015
Total assets:		
Gevo	$ 110,072	$ 100,394
Gevo Development / Agri-Energy	156,749	157,661
Intercompany eliminations (1)	(154,497)	(155,224)
Consolidated (2)	$ 112,324	$ 102,831

(1) Includes intercompany sales of $0.2 million of hydrocarbon sales.
(2) All other significant non-cash items relate to the activities of Gevo

19. Subsequent Events

2017 Note extension transaction. In February 2017, WB Gevo, Ltd. ("Whitebox"), the holder of our issued and outstanding 10% Convertible Senior Notes, due 2017 (the "2017 Notes"), and the Company agreed to extend the maturity date of the 2017 Notes from March 15, 2017 to June 23, 2017 (the "2017 Notes Extension Transaction"). Pursuant to the terms of a supplemental indenture, the terms of the 2017 Notes Extension Transaction include, among other things, the following: (i) an increase in the coupon on the 2017 Notes by two percent (2%) to twelve percent (12%); and (ii) the requirement that we pay down $8 million of principal on the 2017 Notes as follows: $2 million on each of March 13, 2017, April 13, 2017, May 12, 2017 and June 13, 2017, with an option for us to prepay all $8 million at any time in our sole discretion. In addition, as part of the 2017 Notes Extension Transaction, we agreed to pay Whitebox fifteen percent (15%) of the net proceeds from our next underwritten public offering, completed prior to June 23, 2017, and to be used to reduce the then-outstanding principal of the 2017 Notes, which would be in addition to the $8 million pay-down of

the 2017 Notes described above. On February 23, 2017, we paid down the principal balance on the 2017 Notes by with 15% of the net proceeds from the offering referred to below, along with the $8.0 million in prepayments under the supplemental indenture, for an aggregate total payment of $9.6 million, which reduced the principal balance on the 2017 Notes to approximately $16.5 million.

Issuance of common stock. In February 2017, we sold 5,680,000 Series G units, with each Series G unit consisting of one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.90 per Series G unit. We also agreed to sell 570,000 Series H units, with each Series H unit consisting of a pre-funded Series L warrant to purchase one share of common stock, a Series K warrant to purchase one share of common stock and a Series M warrant to purchase one share of common stock, at a public offering price of $1.89 per Series H unit. The Series K warrants will have an exercise price of $2.35 per share, be exercisable beginning the date of original issuance and will expire on February 17, 2022. The Series L warrants will have an exercise price of $1.90 per share, which will be pre-paid upon issuance, except for a nominal exercise price of $0.01 per share and, consequently, no additional payment or other consideration (other than the nominal exercise price of $0.01 per share) will be required to be delivered to us by the holder upon exercise of the Series L warrants. The Series L warrants will be exercisable from the date of original issuance and will expire on February 17, 2018. The Series M warrants will have an exercise price of $2.35 per share, be exercisable beginning on the date of original issuance and will expire on November 17, 2017. The shares of common stock and the warrants will be immediately separable and will be issued separately. The gross proceeds to us from this offering were approximately $11.9 million, not including any future proceeds from the exercise of the warrants.

2022 Note exchanges. In January 2017, we entered into private exchange agreements with holders of our 7.5% convertible 2022 Notes to exchange an aggregate of $8.4 million of principal amount of 2022 Notes for an aggregate of 2,155,382 shares of common stock. These exchanges reduced the outstanding principal amount of the 2022 Notes to $1.2 million.

Reverse stock split. Effective January 5, 2017, we effected a one-for-twenty reverse split of the Company's issued and outstanding common stock (the "Reverse Stock Split"). Upon the stock split, every twenty shares of the Company's common stock issued and outstanding were automatically combined into one share of common stock, without any change in the par value per share.

NASDAQ Compliance. In January 2017, the Company received notice from The NASDAQ Stock Market LLC that effective January 20, 2017 it had regained compliance with the NASDAQ Capital Market's minimum bid price continued listing requirement of at least ten consecutive days with a closing bid price of its common stock in excess of $1.00.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required financial disclosures.

Based on their evaluation as of December 31, 2016, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2016.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in *Internal Control—Integrated Framework* (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon the results of the evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2016.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item will be included in the definitive proxy statement for our 2017 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2016, and is incorporated into this Report by reference.

Item 11. Executive Compensation

The information required by this item will be included in the definitive proxy statement for our 2017 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2016, and is incorporated into this Report by reference.

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

The information required by this item will be included in the definitive proxy statement for our 2017 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2016, and is incorporated into this Report by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be included in the definitive proxy statement for our 2017 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2016, and is incorporated into this Report by reference.

Item 14. Principal Accountant Fees and Services

The information required by this item will be included in the definitive proxy statement for our 2016 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2016, and is incorporated into this Report by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

The following consolidated financial statements are included:

(a)(2) Financial Statement Schedules

All financial statement schedules have been omitted because they are not applicable or are not required, or because the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
3.1	Amended and Restated Certificate of Incorporation of Gevo, Inc.	10-K	001-35073	March 29, 2011	3.1	
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	June 10, 2013	3.1	
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	July 9, 2014	3.1	
3.4	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	April 22, 2015	3.1	
3.5	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	January 6, 2017	3.1	
3.6	Amended and Restated Bylaws of Gevo, Inc.	10-K	001-35073	March 29, 2011	3.2	
4.1	Form of the Gevo, Inc. Common Stock Certificate.	S-1	333-168792	January 19, 2011	4.1	
4.2	Fifth Amended and Restated Investors' Rights Agreement, dated March 26, 2010.	S-1	333-168792	August 12, 2010	4.2	
4.3†	Stock Issuance and Stockholder's Rights Agreement, dated July 12, 2005, by and between Gevo, Inc. and California Institute of Technology.	S-1	333-168792	August 12, 2010	4.3	
4.4	Amended and Restated Warrant to purchase shares of Common Stock issued to CDP Gevo, LLC, dated September 22, 2010.	S-1	333-168792	October 1, 2010	4.4	
4.5	Warrant to purchase shares of Preferred Stock, issued to Virgin Green Fund I, L.P., dated January 18, 2008.	S-1	333-168792	August 12, 2010	4.9	
4.6	Plain English Warrant Agreement No. 0647-W-01, dated August 5, 2010, by and between Gevo, Inc. and TriplePoint Capital LLC.	S-1	333-168792	October 1, 2010	4.11	
4.7	Plain English Warrant Agreement No. 0647-W-02, dated August 5, 2010, by and between Gevo, Inc. and TriplePoint Capital LLC.	S-1	333-168792	October 1, 2010	4.12	
4.8	Plain English Warrant Agreement No. 0647-W-03, dated October 20, 2011, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	October 26, 2011	10.7	
4.9	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W- 01, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.1	
4.10	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W- 02, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.2	
4.11	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W- 03, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.3	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
4.12	Common Stock Warrant, issued to Genesis Select Corporation, dated June 6, 2013.	10-Q	001-35073	August 14, 2013	4.9	
4.13	Common Stock Unit Warrant Agreement, dated December 16, 2013, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	December 12, 2013	4.1	
4.14	Exchange and Purchase Agreement, dated May 9, 2014, by and among Gevo, Inc., Gevo Development, LLC, Agri-Energy, LLC, WB Gevo, Ltd., Whitebox Advisors LLC, in its capacity as administrative agent, and Whitebox Advisors LLC, in its capacity as representative of the Purchaser, and each other party who thereafter executes and delivers a Joinder Agreement.	8-K	001-35073	May 23, 2014	4.1	
4.15	Registration Rights Agreement, dated May 9, 2014, by and among Gevo, Inc., WB Gevo, Ltd., and each other party who thereafter executes and delivers a Joinder Agreement.	8-K	001-35073	May 15, 2014	4.2	
4.16	Indenture, dated July 5, 2012, between Gevo, Inc. and Wells Fargo Bank, National Association, as trustee.	8-K	001-35073	July 5, 2012	4.1	
4.17	First Supplemental Indenture, dated July 5, 2012, to the Indenture dated July 5, 2012, by and among Gevo, Inc. and Wells Fargo Bank, National Association, as trustee.	8-K	001-35073	July 5, 2012	4.2	
4.18†	Indenture, dated June 6, 2014, by and among Gevo, Inc., the guarantors named on the signature page thereto and Wilmington Savings Fund Society, FSB (for 10% Convertible Senior Secured Notes due 2017).	8-K	001-35073	June 12, 2014	4.1	
4.19	First Supplemental Indenture, dated July 31, 2014, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35073	August 1, 2014	4.1	
4.20	Second Supplemental Indenture and First Amendment to Pledge and Security Agreement, dated January 28, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, and WB Gevo, Ltd.	8-K	001-35073	January 30, 2015	4.1	
4.21	Third Supplemental Indenture, dated May 13, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, Wilmington Savings Fund Society, FSB, as collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35037	May 15, 2015	4.1	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
4.22	Fourth Supplemental Indenture, dated June 1, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, Wilmington Savings Fund Society, FSB, as collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	10-Q	001-35037	August 7, 2015	4.26	
4.23	Fifth Supplemental Indenture, dated August 22, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, Wilmington Savings Fund Society, FSB, as collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	10-Q	001-35037	November 5, 2015	4.27	
4.24	Seventh Supplemental Indenture, dated December 7, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee and collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35037	December 9, 2015	4.1	
4.25	Eighth Supplemental Indenture, dated March 28, 2016, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee and collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35037	March 29, 2016	4.1	
4.26	Ninth Supplemental Indenture, dated September 7, 2016, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee and collateral trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35037	September 9, 2016	4.1	
4.27	Common Stock Unit Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	August 6, 2014	4.1	
4.28	2015 Common Stock Unit Series A Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	February 4, 2015	4.1	
4.29	2015 Common Stock Unit Series B Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	February 4, 2015	4.2	
4.30	2015 Common Stock Unit Series C Warrant Agreement, dated May 19, 2015, by and between Gevo, Inc. and the American Stock Transfer & Trust Company LLC.	8-K	001-35037	May 20, 2015	4.1	
4.31	Form of Series D Warrant To Purchase Common Stock.	8-K	001-35037	December 15, 2015	4.1	
4.32	Form of Series E Warrant To Purchase Common Stock.	8-K	001-35037	December 15, 2015	4.2	
4.33	Form of Series F Warrant to Purchase Common Stock.	8-K	001-35037	April 5, 2016	4.1	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
4.34	Form of Pre-Funded Series G Warrant To Purchase Common Stock.	8-K	001-35037	April 5, 2016	4.2	
4.35	Form of Series H Warrant To Purchase Common Stock.	8-K	001-35037	April 5, 2016	4.3	
4.36	Form of Amendment No. 1 to Series D Warrant.	8-K	001-35037	June 13, 2016	4.3	
4.37	Form of Series I Warrant To Purchase Common Stock.	8-K	001-35037	September 15, 2016	4.1	
4.38	Form of Pre-Funded Series J Warrant To Purchase Common Stock.	8-K	001-35037	September 15, 2016	4.2	
4.39	Form of Series K Warrant to Purchase Common Stock.	8-K	001-35037	February 22, 2017	4.1	
4.40	Form of Pre-Funded Series L Warrant to Purchase Common Stock.	8-K	001-35037	February 22, 2017	4.2	
4.41	Form of Series M Warrant to Purchase Common Stock.	8-K	001-35037	February 22, 2017	4.3	
10.1†	Ethanol Purchasing and Marketing Agreement, dated April 1, 2009, by and between C&N Ethanol Marketing Corporation and Agri-Energy Limited Partnership.	S-1	333-168792	November 4, 2010	10.26	
10.2†	License Agreement, dated July 12, 2005, by and between Gevo, Inc. and the California Institute of Technology, as amended.	S-1	333-168792	November 4, 2010	10.6	
10.3	Amendment No. 4, dated October 1, 2010, to the License Agreement, by and between Gevo, Inc. and the California Institute of Technology, dated July 12, 2005.	S-1	333-168792	October 21, 2010	10.10	
10.4†	Isobutanol Joint Venture Agreement, dated June 15, 2011, by and between Gevo Development, LLC and Redfield Energy, LLC.	10-Q	001-35073	August 3, 2011	10.1	
10.5†	Second Amended and Restated Operating Agreement of Redfield Energy, LLC, dated June 13, 2011.	10-Q	001-35073	August 3, 2011	10.2	
10.6#	Gevo, Inc. 2006 Omnibus Securities and Incentive Plan.	S-1	333-168792	August 12, 2010	10.11	
10.7#	Form of Stock Option Agreement under the 2006 Omnibus Securities and Incentive Plan.	S-1	333-168792	August 12, 2010	10.13	
10.8#	Gevo, Inc. Amended and Restated 2010 Stock Incentive Plan.	10-Q	001-35073	November 14, 2016	10.4	
10.9#	Form of Restricted Stock Unit Agreement under the 2010 Stock Incentive Plan.	S-1	333-168792	January 19, 2011	10.15	
10.10#	Form of Restricted Stock Award Agreement under the 2010 Stock Incentive Plan.	10-K	001-35073	March 29, 2011	10.21	
10.11#	Form of Stock Option Award Agreement under the 2010 Stock Incentive Plan.	10-K	001-35073	March 29, 2011	10.22	
10.12#	Gevo, Inc. Employee Stock Purchase Plan.	S-8	333-172771	March 11, 2011	4.7	
10.13#	Gevo, Inc. Executive Health Management Plan.	10-Q	001-35073	November 2, 2011	10.1	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
10.14#	Form of Indemnification Agreement between Gevo, Inc. and its directors and officers.	S-1	333-168792	January 19, 2011	10.33	
10.15#	Employment Agreement, dated June 4, 2010, by and between Gevo, Inc. and Patrick Gruber.	S-1	333-168792	November 4, 2010	10.14	
10.16#	Amendment Agreement, dated December 21, 2011, by and between Gevo, Inc. and Patrick Gruber.	8-K	001-35073	December 27, 2011	10.1	
10.17#	Second Amendment Agreement, dated February 16, 2015, by and between Gevo, Inc. and Patrick Gruber.	8-K	001-35073	February 17, 2015	10.1	
10.18#	Employment Agreement, dated June 4, 2010, by and between Gevo, Inc. and Christopher Ryan.	S-1	333-168792	November 4, 2010	10.16	
10.19#	Offer Letter, dated April 10, 2014, by and between Gevo, Inc. and Mike Willis.	10-K	001-35073	April 15, 2014	10.38	
10.20#†	Transaction Bonus Agreement, dated September 6, 2016, by and between Gevo, Inc. and Mike Willis.					X
10.21†	Lease of Space, dated September 13, 2012, between Hines REIT 345 Inverness Drive, LLC and Gevo, Inc.	10-K	001-35073	March 26, 2013	10.48	
10.22†	Price Risk Management, Origination and Merchandising Agreement, dated June 1, 2015, by and between Agri-Energy, LLC and FCStone Merchant Services, LLC.	10-Q	001-35073	August 7, 2015	10.3	
10.23	Grain Bin Lease Agreement, dated June 1, 2015, by and between Agri-Energy, LLC and FCStone Merchant Services LLC.	10-Q	001-35073	August 7, 2015	10.4	
10.24	Unsecured Guaranty Agreement, dated June 1, 2015, by Gevo, Inc. in favor of FCStone Merchant Services, LLC.	10-Q	001-35073	August 7, 2015	10.5	
10.25†	Settlement Agreement and Mutual Release, dated August 22, 2015, by and among Gevo, Inc., Butamax Advanced Biofuels, LLC, E.I. du Pont de Nemours & Company and BP Biofuels North America LLC.	10-Q	001-35073	November 5, 2015	10.2	
10.26†	Patent Cross-License Agreement, dated August 22, 2015, by and between Gevo, Inc. and Butamax Advanced Biofuels LLC.	10-Q	001-35073	November 5, 2015	10.3	
10.27†	Joint Development Agreement, dated November 6, 2015, by and between Gevo, Inc. and Praj Industries Ltd.	8-K	001-35073	November 10, 2015	10.1	
10.28†	Development License Agreement, dated November 6, 2015, by and between Gevo, Inc. and Praj Industries Ltd.	8-K	001-35073	November 10, 2015	10.2	
10.29†	Joint Development Agreement, dated February 1, 2016, by and between Gevo, Inc. and Porta Hnos S.A.	8-K	001-35073	February 5, 2016	10.1	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
10.30†	Commercial License Agreement, dated February 1, 2016, by and between Gevo, Inc. and Porta Hnos S.A.	8-K	001-35073	February 5, 2016	10.2	
10.31	First Amendment to Lease of Space, effective December 11, 2015, between Hines REIT 345 Inverness Drive, LLC.	10-K	001-35073	March 30, 2016	10.62	
10.32	Form of Securities Purchase Agreement, dated June 10, 2016, by and between Gevo, Inc. and each purchaser identified therein.	8-K	001-35073	June 13, 2016	10.1	
10.33	Form of Exchange Agreement.	8-K	001-35073	September 9, 2016	10.3	
21.1	List of Subsidiaries.	S-1	333-168792	October 1, 2010	10.10	
23.1	Consent of Grant Thornton LLP.					X
23.2	Consent of Deloitte & Touche LLP.					X
24.1	Power of Attorney (see the signature page to this Report).					X
31.1	Section 302 Certification of the Chief Executive Officer.					X
31.2	Section 302 Certification of the Chief Financial Officer.					X
32.1	Section 906 Certifications of the Chief Executive Officer and Chief Financial Officer.					X
101	Interactive Data Files Pursuant to Rule 405 of Regulation S-T: (i) Consolidated Balance Sheets at December 31, 2016 and December 31, 2015, (ii) Consolidated Statements of Operations for each of the three years in the period ended December 31, 2016, (iii) Consolidated Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2016, (iv) Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2016; and (iv) Notes to the Consolidated Financial Statements.					X

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.
# Indicates a management contract or compensatory plan or arrangement.

(b) Exhibits

See Item 15(a)(3) above.

(c) Financial Statement Schedules

See Item 15(a)(2) above.

Item 16. Form 10K-Summary

None.

SIGNATURES

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

GEVO, INC.

By: /s/ Mike Willis
Mike Willis
Chief Financial Officer

Date: March 30, 2017

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Patrick R. Gruber, Mike Willis and Geoffrey T. Williams, jointly and severally, as his or her attorney-in-fact, each with full power of substitution, for him or her, in any and all capacities, to sign each amendment to this report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signatures	Title	Date
/s/ PATRICK R. GRUBER **Patrick R. Gruber, Ph.D.**	Chief Executive Officer (Principal Executive Officer) and Director	March 30, 2017
/s/ MIKE WILLIS **Mike Willis**	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2017
/s/ RUTH I. DREESSEN **Ruth Dreessen**	Chairperson of the Board of Directors	March 30, 2017
/s/ GARY W. MIZE **Gary W. Mize**	Director	March 30, 2017
/s/ ANDY MARSH **Andy Marsh**	Director	March 30, 2017
/s/ JOHANNES MINHO ROTH **Johannes Minho Roth**	Director	March 30, 2017
/s/ WILLIAM H. BAUM **William Baum**	Director	March 30, 2017

Exhibit 10.20

CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR THE REDACTED PORTIONS OF THIS EXHIBIT. THE REDACTIONS ARE INDICATED WITH "[**]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED WITH THE U.S. SECURITIES AND EXCHANGE COMMISSION.

September 6, 2016

Michael J. Willis
Chief Financial Officer
Gevo, Inc.
45 Inverness Drive South, Building C, Suite 310
Englewood, CO 80112

Re: Transaction Bonus

Dear Mike:

This transaction bonus letter agreement (this "Agreement") is entered into by and between you and Gevo, Inc., a Delaware corporation (the "Company"), and sets forth the terms and conditions governing your right to earn a transaction bonus in connection with certain restructuring transactions of the Company. Subject to the terms and conditions set forth below, the parties hereto agree as follows:

1. Eligibility for Restructuring Transaction Bonus. Upon closing of a Restructuring Transaction (as defined below) by the Company, you are entitled to receive the one-time restructuring transaction bonus set forth in Section 2 below (the "Transaction Bonus"). Your right to receive the Transaction Bonus will be conditioned upon your continued employment with the Company through the closing of the Restructuring Transaction.

   "Restructuring Transaction" means one or more transactions that, as determined by the Compensation Committee of the Company's Board of Directors in its sole discretion, (i) are approved by the Company's Board of Directors and restructures the Company's 10% Convertible Senior Secured Notes due 2017, which were issued to WB Gevo, Ltd. in June 2014 (the "2017 Notes"), [**] and addresses the maturities of any then-outstanding debt in a manner acceptable to the Board; [**]; or (ii) are approved by the Company's Board of Directors and [**] after taking into account the then outstanding balances due under (x) the 2017 Notes, (y) the Company's Secured Debt issued to TriplePoint Capital; and (z) the Company's 7.5% Convertible Notes due in 2022; or (iii) are approved by the Company's Board of Directors and effectively and successfully restructures the Company's debt, including addressing the maturities of any then-outstanding debt in a manner acceptable to the Board.

   The Compensation Committee of the Company's Board of Directors shall have the authority, in its reasonable discretion, to construe and interpret any terms of this Agreement, and all decisions, determinations and interpretations of the Compensation Committee with respect to this Agreement shall be final and binding.

2. Amount and Payment of Transaction Bonus: The Transaction Bonus will be equal to a one-time cash payment of $150,000. Unless otherwise determined by the Company, if the Transaction Bonus is

[**] - Indicates certain information has been redacted and filed separately with the U.S. Securities and Exchange Commission. Confidential treatment has been requested with respect to the redacted portions.

earned, it will be paid pursuant to the Company's standard payroll practices, but in any event will be paid within ten (10) business days after closing of the Restructuring Transaction.

3. Tax Withholding. The Company shall have the right to deduct from the Transaction Bonus due under this Agreement, any applicable withholding taxes or other deductions required by law to be withheld with respect to such payment and to take such action as may be necessary in the opinion of the Company to satisfy all obligations for the payment of such taxes.

4. No Right to Continued Employment. Nothing in this Agreement shall confer upon you any right to continue in the employ or service of the Company or affect the right of the Company to terminate your employment or service at any time.

5. Termination of Agreement. Notwithstanding anything to the contrary herein or in any other employment agreement between you and the Company, if your employment terminates for any reason prior to the closing of a Restructuring Transaction, then your Transaction Bonus shall automatically terminate without any further action by the parties hereto, and this Agreement shall be null and void and have no further force and effect.

6. Governing Law; Venue. This Agreement shall be governed and construed in accordance with the laws of the State of Colorado, without regard to conflicts of laws principles thereof. All disputes arising out of or related to this Agreement shall be submitted to the state and federal courts of Colorado, and the parties irrevocably consent to such personal jurisdiction and waive all objections thereto, but do so only for the purposes of this Agreement.

[Signature Page Follows]

[**] - Indicates certain information has been redacted and filed separately with the U.S. Securities and Exchange Commission. Confidential treatment has been requested with respect to the redacted portions.

IN WITNESS WHEREOF, the parties have executed and entered into this Agreement as of the date first set forth above.

GEVO, INC.

By: /s/ Patrick R. Gruber
Title: Patrick R. Gruber
Title: Chief Executive Officer

/s/ Michael J. Willis
Michael J. Willis

[**] - Indicates certain information has been redacted and filed separately with the U.S. Securities and Exchange Commission. Confidential treatment has been requested with respect to the redacted portions.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 29, 2017, with respect to the consolidated financial statements of Gevo, Inc. and subsidiaries included in the Annual Report on Form 10-K for the year ended December 31, 2016. We consent to the incorporation by reference of said report in the Registration Statements of Gevo, Inc. on Forms S-8 (File No.s 333-172771, 333-195264, 333-207172, and 333-212391) and on Forms S-3 (File No.s 333-197285 and 333-211370).

/s/ Grant Thornton LLP

Denver, Colorado
March 30, 2017

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-172771, 333-195264, 333-207172, and 333-212391 on Form S-8 and Registration Statement Nos. 333-197285 and 333-211370 on Form S-3 of our report dated March 27, 2015, relating to the 2014 consolidated financial statements (before the retrospective adjustments to the consolidated financial statements and financial statement disclosures relating to the reverse stock splits) of Gevo, Inc. and subsidiaries (not presented herein) (which report expresses an unqualified opinion and includes explanatory paragraphs referring to Gevo Inc.'s going concern uncertainty and the reverse stock splits), appearing in this Annual Report on Form 10-K of Gevo, Inc. for the year ended December 31, 2016.

/s/ DELOITTE & TOUCHE LLP
Denver, Colorado

March 30, 2017

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
(Pursuant to Rule 13a-14(a) of the
Securities Exchange Act of 1934, as amended,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002)

I, Patrick R. Gruber, certify that:

1. I have reviewed this annual report on Form 10-K of Gevo, 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: March 30, 2017

/s/ Patrick R. Gruber

Patrick R. Gruber
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
(Pursuant to Rule 13a-14(a) of the
Securities Exchange Act of 1934, as amended,
as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002)

I, Mike Willis, certify that:

1. I have reviewed this annual report on Form 10-K of Gevo, 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: March 30, 2017

/s/ Mike Willis

Mike Willis
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATIONS

I, Patrick R. Gruber, Chief Executive Officer of Gevo, Inc. (the "Company"), and I, Mike Willis, 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:

(1) The Annual Report on Form 10-K of the Company for the year ended December 31, 2016, (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the period covered by the Report.

/s/ Patrick R. Gruber

Patrick R. Gruber
Chief Executive Officer

Date: March 30, 2017

/s/ Mike Willis

Mike Willis
Chief Financial Officer

Date: March 30, 2017

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the U.S. Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report to which it relates, is not deemed filed with the U.S. Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, whether made before or after the date of the Report and irrespective of any general incorporation language contained in such filing.