AMYRIS, INC.
Form 10-Q
August 09, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2016

OR

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

For the Transition Period from to

Commission File Number: 001-34885

AMYRIS, INC.

(Exact name of registrant as specified in its charter)

Delaware 55-0856151

(State or other jurisdiction of (I.R.S. Employer

incorporation or organization) Identification No.)

Amyris, Inc.

5885 Hollis Street, Suite 100

Emeryville, CA 94608

(510) 450-0761

(Address and telephone number of principal executive offices)

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 pursuance to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer.

Large accelerated filer Accelerated filer
Non-accelerated filer 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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	**Outstanding at July 31, 2016**
Common Stock, $0.0001 par value per share	235,022,696

AMYRIS, INC.

QUARTERLY REPORT ON FORM 10-Q

For the Quarterly Period Ended June 30, 2016

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PART I

ITEM 1. FINANCIAL STATEMENTS

Amyris, Inc.

Condensed Consolidated Balance Sheets

(In Thousands, Except Shares and Per Share Amounts)

(Unaudited)

	June 30, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$822	$11,992
Restricted cash	275	216
Short-term investments	1,685	1,520
Accounts receivable, net of allowance of $479 and $479, respectively	4,070	4,004
Related party accounts receivable, net of allowance of $410 and $490, respectively	587	1,176
Inventories, net	9,996	10,886
Prepaid expenses and other current assets	4,043	4,583
Total current assets	21,478	34,377
Property, plant and equipment, net	65,200	59,797
Restricted cash	5,958	957
Equity and loans in affiliates	34	68
Other assets	12,633	10,357
Goodwill and intangible assets	560	560
Total assets	$105,863	$106,116
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$9,808	$7,943
Deferred revenue	7,717	6,509
Accrued and other current liabilities	30,858	24,268
Capital lease obligation, current portion	1,370	523
Debt, current portion	54,421	36,281
Related party debt	25,558	—
Total current liabilities	129,732	75,524
Capital lease obligation, net of current portion	99	176
Long-term debt, net of current portion	62,150	72,854
Related party debt	39,263	42,839
Deferred rent, net of current portion	9,338	9,682
Deferred revenue, net of current portion	4,469	4,469
Derivative liabilities	6,752	51,439
Other liabilities	3,244	7,589
Total liabilities	255,047	264,572

Mezzanine equity		
Contingently redeemable common stock	5,000	—
Commitments and contingencies (Note 6)		
Stockholders’ deficit:		
Preferred stock - $0.0001 par value, 5,000,000 shares authorized, none issued and outstanding	—	—
Common stock - $0.0001 par value, 500,000,000 and 400,000,000 shares authorized as of June 30, 2016 and December 31, 2015, respectively; 228,418,370 and 206,130,282 shares issued and outstanding as of June 30, 2016 and December 31, 2015, respectively	22	21
Additional paid-in capital	949,803	926,216
Accumulated other comprehensive loss	(37,917)	(47,198)
Accumulated deficit	(1,065,978)	(1,037,104)
Total Amyris, Inc. stockholders’ deficit	(154,070)	(158,065)
Noncontrolling interest	(114)	(391)
Total stockholders' deficit	(154,184)	(158,456)
Total liabilities, mezzanine equity and stockholders' deficit	$105,863	$106,116

See the accompanying notes to the unaudited condensed consolidated financial statements.

Amyris, Inc.

Condensed Consolidated Statements of Operations

(In Thousands, Except Shares and Per Share Amounts)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenues				
Renewable product sales	$4,922	$3,340	$8,062	$5,435
Grants and collaborations revenue	4,677	4,503	10,347	10,280
Total revenues	9,599	7,843	18,409	15,715
Cost and operating expenses				
Cost of products sold	7,891	10,959	19,068	17,602
Research and development	13,176	11,168	25,082	23,178
Sales, general and administrative	11,408	14,375	23,674	28,756
Total cost and operating expenses	32,475	36,502	67,824	69,536
Loss from operations	(22,876)	(28,659)	(49,415)	(53,821)
Other income (expense):				
Interest income	82	58	139	144
Interest expense	(9,704)	(45,986)	(18,062)	(54,468)
Gain (loss) from change in fair value of derivative instruments	20,934	28,834	42,612	11,422
Loss upon extinguishment of debt	(433)	—	(649)	—
Other expense, net	(1,431)	(667)	(3,246)	(1,036)
Total other income (expense)	9,448	(17,761)	20,794	(43,938)
Loss before income taxes and loss from investments in affiliates	(13,428)	(46,420)	(28,621)	(97,759)
Provision for income taxes	(138)	(121)	(253)	(236)
Net loss before loss from investments in affiliates	(13,566)	(46,541)	(28,874)	(97,995)
Loss from investments in affiliates	—	(621)	—	(1,429)
Net loss	(13,566)	(47,162)	(28,874)	(99,424)
Net loss attributable to noncontrolling interest	—	32	—	54
Net loss attributable to Amyris, Inc. common stockholders	$(13,566)	$(47,130)	$(28,874)	$(99,370)
Net loss per share attributable to common stockholders:				
Basic	$(0.06)	$(0.59)	$(0.13)	$(1.25)
Diluted	$(0.11)	$(0.62)	$(0.23)	$(1.25)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock:				
Basic	223,112,019	80,041,152	216,393,705	79,633,864

Diluted	262,896,140	87,421,439	258,809,405	79,633,864

See the accompanying notes to the unaudited condensed consolidated financial statements.

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Amyris, Inc.

Condensed Consolidated Statements of Comprehensive Loss

(In Thousands)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Comprehensive loss:				
Net loss	$(13,566)	$(47,162)	$(28,874)	$(99,424)
Foreign currency translation adjustment, net of tax	4,593	3,142	9,281	(8,103)
Total comprehensive loss	(8,973)	(44,020)	(19,593)	(107,527)
Loss attributable to noncontrolling interest	—	32	—	54
Foreign currency translation adjustment attributable to noncontrolling interest	—	19	—	(248)
Comprehensive loss attributable to Amyris, Inc.	$(8,973)	$(43,969)	$(19,593)	$(107,721)

See the accompanying notes to the unaudited condensed consolidated financial statements.

Amyris, Inc.

Condensed Consolidated Statements of Stockholders' Deficit and Mezzanine Equity

(In Thousands, Except Shares)

(Unaudited)

	Common Stock							
	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Deficit	Mezzanine Equity
December 31, 2015	206,130,282	$ 21	$ 926,216	$ (1,037,104)	$ (47,198)	$ (391)	$ (158,456)	$ —
Issuance of common stock upon exercise of stock options, net of restricted stock	134	—	—	—	—	—	0	—
Issuance of common stock upon conversion of debt	8,219,876	1	8,637	—	—	—	8,638	—
Issuance of common stock for settlement of debt principal payments	8,490,725	—	3,289	—	—	—	3,289	—
Issuance of warrants with debt private placement	—	—	3,971	—	—	—	3,971	—
Shares issued from restricted stock settlement	964,566	—	(201)	—	—	—	(201)	—
Stock-based compensation	—	—	3,840	—	—	—	3,840	—
Contribution upon restructuring of Fuels JV	—	—	4,251	—	—	—	4,251	—
Issuance of contingently redeemable common stock	4,385,964	—	—	—	—	—	—	5,000
Shares issued upon ESPP purchase	226,823	—	123	—	—	—	123	—
Acquisition of noncontrolling interest	—	—	(323)	—	—	277	(46)	—

Foreign currency translation adjustment	—	—		—	9,281		9,281	—
Net loss	—	—	—	(28,874)	—	—	(28,874)	—
June 30, 2016	228,418,370	$ 22	$ 949,803	$ (1,065,978)	$ (37,917)	$ (114)	$ (154,184)	$ 5,000

See the accompanying notes to the unaudited condensed consolidated financial statements.

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Amyris, Inc.

Condensed Consolidated Statements of Cash Flows

(In Thousands)

(Unaudited)

	Six Months Ended June 30,	
	2016	2015
Operating activities		
Net loss	$(28,874)	$(99,424)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,720	6,840
(Gain)/loss on disposal of property, plant and equipment	(122)	101
Stock-based compensation	3,840	4,708
Amortization of debt discount and issuance costs	7,415	43,144
Loss upon extinguishment of debt	649	—
Change in fair value of derivative instruments	(42,612)	(11,422)
Loss on foreign currency exchange rates	1,083	—
Loss from investments in affiliates	—	1,429
Changes in assets and liabilities:		
Accounts receivable	(183)	6,023
Related party accounts receivable	587	174
Inventories, net	1,910	3,352
Prepaid expenses and other assets	1,695	(2,298)
Accounts payable	1,190	2,966
Accrued and other liabilities	8,132	6,715
Deferred revenue	939	5,143
Deferred rent	(344)	(242)
Net cash used in operating activities	(38,975)	(32,791)
Investing activities		
Purchase of short-term investments	(2,366)	(1,175)
Maturities of short-term investments	2,585	1,195
Change in restricted cash	7	(10)
Change in restricted cash related to contingently redeemable equity	(5,000)	—
Purchases of property, plant and equipment, net of disposals	(400)	(1,812)
Net cash used in investing activities	(5,174)	(2,873)
Financing activities		
Proceeds from exercise of common stock, net of repurchase	123	—
Employees' taxes paid upon vesting of restricted stock units	(201)	(313)
Proceeds from issuance of contingently redeemable equity	5,000	—

Principal payments on capital leases	(506)	(432)
Proceeds from debt issued, net of discounts and issuance costs	9,950	—
Proceeds from debt issued to related parties	25,000	10,850
Principal payments on debt	(6,573)	(6,596)
Net cash provided by financing activities	32,793	5,544
Effect of exchange rate changes on cash and cash equivalents	186	(1,049)
Net decrease in cash and cash equivalents	(11,170)	(31,169)
Cash and cash equivalents at beginning of period	11,992	42,047
Cash and cash equivalents at end of period	$822	$10,878

Amyris, Inc.

Condensed Consolidated Statements of Cash Flows—(Continued)

(In Thousands)

	Six Months Ended June 30,	
	2016	2015
Supplemental disclosures of cash flow information:		
Cash paid for interest	$3,735	$4,957
Supplemental disclosures of non-cash investing and financing activities:		
Acquisitions of property, plant and equipment under accounts payable, accrued liabilities and notes payable	$(521)	$—
Financing of equipment	$1,276	$303
Financing of insurance premium under notes payable	$(315)	$(161)
Interest capitalized to debt	$2,052	$6,354
Issuance of common stock upon conversion of debt	$8,638	$—
Issuance of common stock for settlement of debt principal payments	$3,289	$—
Cancellation of debt and accrued interest on disposal of interest in affiliate	$4,252	$—
Non-cash investment in joint venture	$600	$(401)

See the accompanying notes to the unaudited condensed consolidated financial statements.

Amyris, Inc.

Notes to Unaudited Condensed Consolidated Financial Statements

1. The Company

Amyris, Inc. (or "the Company") was incorporated in California on July 17, 2003 and reincorporated in Delaware on June 10, 2010 for the purpose of leveraging breakthroughs in bioscience technology to develop and provide renewable compounds for a variety of markets. The Company is currently applying its industrial synthetic biology platform to engineer, manufacture and sell high performance, low cost products into a variety of consumer and industrial markets, including cosmetics, flavors & fragrances (or "F&F"), solvents and cleaners, polymers, lubricants, healthcare products and fuels, and it is seeking to apply its technology to the development of pharmaceutical products. The Company's first commercialization efforts have been focused on a renewable hydrocarbon molecule called farnesene (Biofene®), which forms the basis for a wide range of products including emollients, flavors and fragrance oils and diesel fuel. While the Company's platform is able to use a wide variety of feedstocks, the Company has focused on Brazilian sugarcane because of its abundance, low cost and relative price stability. The Company has established two principal operating subsidiaries, Amyris Brasil Ltda. (formerly Amyris Brasil S.A., or "Amyris Brasil") for production in Brazil, and Amyris Fuels, LLC (or "Amyris Fuels").

The Company's renewable products business strategy is to focus on direct commercialization of specialty products while moving established commodity products into collaboration or joint venture arrangements with leading industry partners. To commercialize its products, the Company must be successful in using its technology to manufacture products at commercial scale and on an economically viable basis (i.e., low per unit production costs) and developing sufficient sales volume for those products to support its operations. The Company's prospects are subject to risks, expenses and uncertainties frequently encountered by companies in this stage of development.

Liquidity

The Company expects to fund its operations for the foreseeable future with cash and investments currently on hand, cash inflows from collaborations and grants, cash contributions from product sales, and proceeds from new debt and equity financings as well as strategic asset divestments. The Company's planned 2016 and 2017 working capital needs and its planned operating and capital expenditures are dependent on significant inflows of cash from new and existing collaboration partners and from cash generated from renewable product sales, and will also require additional funding from debt or equity financings as well as proceeds from strategic asset divestments.

The Company has incurred significant operating losses since its inception and believes that it will continue to incur losses and negative cash flow from operations into at least 2017. As of June 30, 2016, the Company had negative working capital of $108.3 million, an accumulated deficit of $1,066.0 million, and cash, cash equivalents and short term investments of $2.5 million. The Company will need to raise cash from additional financings or strategic asset divestments as early as the third quarter of 2016 to support its liquidity needs. These factors raise substantial doubt about the Company’s ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. If the Company is unable to continue as a going concern, it may be unable to meet its obligations under its existing debt facilities, which could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be forced to liquidate its assets.

As of June 30, 2016, the Company's debt, net of discount and issuance costs of $44.7 million, totaled $181.4 million, of which $80.0 million is classified as current. In addition to upcoming debt maturities, the Company's debt service obligations over the next twelve months are significant, including $21.0 million of anticipated cash interest payments. The Company's debt agreements contain various covenants, including certain restrictions on the Company's business that could cause the Company to be at risk of defaults, such as the requirement to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under its loan facility with Stegodon Corporation (or “Stegodon”), as assignee of Hercules Capital, Inc. As discussed below, the Company has received a waiver of compliance with such covenant through October 31, 2016. A failure to comply with the covenants and other provisions of the Company’s debt instruments, including any failure to make a payment when required would generally result in events of default under such instruments, which could permit acceleration of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under the Company’s other outstanding indebtedness, permitting acceleration of such other outstanding indebtedness. Any required repayment of such indebtedness as a result of acceleration or otherwise would consume current cash on hand such that the Company would not have those funds available for use in its business or for payment of other outstanding indebtedness. Please refer to Note 5, “Debt” and Note 6, “Commitments and Contingencies” for further details regarding the Company's debt service obligations and commitments. The Company also has significant outstanding debt and contractual obligations related to capital and operating leases, as well as purchase commitments.

In addition to the need for financing described above, the Company may take the following actions to support its liquidity needs through the remainder of 2016 and into 2017:

- Effect significant headcount reductions, particularly with respect to employees not connected to critical or contracted activities across all functions of the Company, including employees involved in general and administrative, research and development, and production activities.

- Shift focus to existing products and customers with significantly reduced investment in new product and commercial development efforts.

- Reduce production activity at the Company’s Brotas manufacturing facility to levels only sufficient to satisfy volumes required for product revenues forecast from existing products and customers.

- Reduce expenditures for third party contractors, including consultants, professional advisors and other vendors.

- Reduce or delay uncommitted capital expenditures, including non-essential facility and lab equipment, and information technology projects.

- Closely monitor the Company’s working capital position with customers and suppliers, as well as suspend operations at pilot plants and demonstration facilities.

Implementing this plan could have a negative impact on the Company's ability to continue its business as currently contemplated, including, without limitation, delays or failures in its ability to:

- Achieve planned production levels;

- Develop and commercialize products within planned timelines or at planned scales; and

- Continue other core activities.

Furthermore, any inability to scale-back operations as necessary, and any unexpected liquidity needs, could create pressure to implement more severe measures. Such measures could have an adverse effect on the Company's ability to meet contractual requirements, including obligations to maintain manufacturing operations, and increase the severity of the consequences described above.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying interim condensed consolidated financial statements have been prepared in accordance with the accounting principles generally accepted in the United States of America (or “GAAP”) and with the instructions for Form 10-Q and Regulation S-X. Accordingly, they do not include all of the information and notes required for complete financial statements. These interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company’s Form 10-K for the fiscal year ended December 31, 2015 as filed with the Securities and Exchange Commission (or the “SEC”) on March 30, 2016. The unaudited condensed consolidated financial statements include the accounts of the Company and its consolidated subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The Company uses the equity method to account for investments in companies, if its investments provide it with the ability to exercise significant influence over operating and financial policies of the investee. Consolidated net income or loss includes the Company's proportionate share of the net income or loss of these companies. Judgments made by the Company regarding the level of influence over each equity method investment include considering key factors such as the Company's ownership interest, representation on the board of directors, participation in policy-making decisions and material intercompany transactions.

Principles of Consolidation

The condensed consolidated financial statements of the Company include the accounts of Amyris, Inc., its subsidiaries and two consolidated variable interest entities (or "VIEs"), with respect to which the Company is considered the primary beneficiary, after elimination of intercompany accounts and transactions. Disclosure regarding the Company's participation in the VIEs is included in Note 7, "Joint Ventures and Noncontrolling Interest."

Variable Interest Entities

The Company has interests in joint venture entities that are VIEs. Determining whether to consolidate a VIE requires judgment in assessing (i) whether an entity is a VIE and (ii) if the Company is the entity's primary beneficiary and thus required to consolidate the entity. To determine if the Company is the primary beneficiary of a VIE, the Company evaluates whether it has (i) the power to direct the activities that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. The Company's evaluation includes identification of significant activities and an assessment of its ability to direct those activities based on governance provisions and arrangements to provide or receive product and process technology, product supply, operations services, equity funding and financing and other applicable agreements and circumstances. The Company's assessment of whether it is the primary beneficiary of its VIEs requires significant assumptions and judgment.

Use of Estimates

In preparing the unaudited condensed consolidated financial statements, management must make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the unaudited condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Unaudited Interim Financial Information

The accompanying interim condensed consolidated financial statements and related disclosures are unaudited, have been prepared on the same basis as the annual consolidated financial statements, except for the impact of adoption of certain accounting standards as described below, and in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair statement of the results of operations for the periods presented. In the quarter ended March 31, 2016 the Company adopted Accounting Standards Update ("ASU") No. 2015-01, *Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items,* ASU No. 2015-02, *Consolidation* (Topic 810), ASU No. 2015-03, *Interest - Imputation of Interest* (Subtopic 835-30): *Simplifying the Presentation of Debt Issuance Costs*, ASU 2015-05, *Intangibles - Goodwill and Other - Internal-Use Software* (Subtopic 350-40) and ASU No. 2015-15, *Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements*. Refer to Note 5. "Debt" for the impact of adoption of ASU No. 2015-03 on the Company's condensed consolidated financial statements. None of the other ASU's adopted had a material impact on the Company's condensed consolidated financial statements.

The year-end condensed consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by GAAP. The condensed consolidated results of operations for any interim period are not necessarily indicative of the results to be expected for the full year or for any other future year or interim period.

Recent Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board (or "FASB") issued ASU No. 2016-13, *Allowance for Loan and Lease Losses (Financial Instruments - Credit Losses Topic 326.)*. New impairment guidance for certain financial instruments (including trade receivables) will replace the current "incurred loss" model for estimating credit losses with a forward looking "expected loss" model. The ASU is effective for the Company for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Early application is permitted as of the fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is evaluating the impact of this standard on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. This ASU identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. This ASU will be effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. The Company is currently assessing the potential impact of this ASU on its consolidated financial statements. Early adoption is permitted. The Company is currently assessing the potential impact of this ASU on its consolidated financial statements. Early adoption is permitted.

In March 2016, the FASB issued ASU No. 2016-06, *Contingent Put and Call Options in Debt Instruments*. The amendments in this ASU clarify the requirements for assessing whether contingent call (put) options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts. An entity performing the assessment under the amendments in this ASU is required to assess the embedded call (put) options solely in accordance with the four-step decision sequence. The ASU is effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently assessing the potential impact of this ASU on its financial statements.

In February 2016, the FASB issued Accounting Standards Update (or "ASU") 2016-02-*Leases* with fundamental changes to how entities account for leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. Additional disclosures for leases will also be required. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. The new standard may materially impact the Company’s financial statements.

In January 2016, the FASB issued ASU 2016-01 *Financial Instruments-Overall*, which address certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Earlier application is permitted under specific circumstances. The Company is currently assessing the potential impact of this standard on its consolidated financial statements.

In July 2015, the FASB issued ASU 2015-11, *Simplifying the Measurement of Inventory*, which requires that inventory within the scope of the guidance be measured at the lower of cost and net realizable value. The new standard is being issued as part of the simplification initiative. Prior to the issuance of the standard, inventory was measured at the lower of cost or market (where market was defined as replacement cost, with a ceiling of net realizable value and floor of net realizable value less a normal profit margin). The new guidance will be effective for fiscal years beginning after December 15, 2016, including interim periods within those years. Prospective application is required and early adoption is permitted. The Company is currently assessing the impact of adopting this new accounting standard on its financial statements.

In August 2014, the FASB issued new guidance related to the disclosure around going concern. The new standard provides guidance around 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 disclosure if substantial doubt exists. The new standard is effective for annual periods ending after December 15, 2016 and for annual periods and interim periods thereafter. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

In May 2014, the FASB issued new guidance related to revenue recognition. In March, April and May 2016, the FASB issued additional amendments to the new revenue guidance relating to reporting revenue on a gross versus net basis, identifying performance obligations, licensing arrangements, collectability, noncash consideration, presentation of sales tax, and transition. This new standard will replace all current GAAP guidance on this topic and eliminate all industry-specific guidance. The new revenue recognition update guidance provides a unified model to determine how revenue is recognized. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The FASB has issued several updates to the standard which i) clarify the application of the principal versus agent guidance (ASU 2016-08); ii) clarify the guidance on inconsequential and perfunctory promises and licensing (ASU 2016-10) and iii) narrow-scope improvements and practical expedients (ASU 2016-12). On July 9, 2015, the FASB voted to defer the effective date by one year to December 15, 2017 for interim and annual reporting periods beginning after that date and permitted early adoption of the standard, but not before the original effective date of December 15, 2016. Therefore, the new standard will be effective commencing with our quarter ending March 31, 2018. The Company is currently assessing the potential impact of this new standard on its consolidated financial statements.

3. Fair Value of Financial Instruments

The inputs to the valuation techniques used to measure fair value are classified into the following categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

There were no transfers between the levels, and as of June 30, 2016, the Company’s financial assets and financial liabilities at fair value were classified within the fair value hierarchy as follows (in thousands):

	Level 1	Level 2	Level 3	Balance as of June 30, 2016

Financial Assets				
Money market funds	$1,121	$—	$—	$1,121
Certificates of deposit	1,685	—	—	1,685
Total financial assets	$2,806	$—	$—	$2,806
Financial Liabilities				
Loans payable [1]	$—	$29,263	$—	$29,263
Credit facilities [1]	—	22,851	—	22,851
Convertible notes [1]	—	—	121,931	121,931
Compound embedded derivative liabilities	—	—	3,266	3,266
Currency interest rate swap derivative liability	—	3,486	—	3,486
Total financial liabilities	$—	$55,600	$125,197	$180,797

[1] These liabilities are carried on the condensed consolidated balance sheet on a historical cost basis.

The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability. The fair values of money market funds and certificates of deposit are based on fair values of identical assets. The fair values of the loans payable, convertible notes, credit facilities and currency interest rate swaps are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company. The method of determining the fair value of the compound embedded derivative liabilities is described subsequently in this note. Market risk associated with the fixed and variable rate long-term loans payable, credit facilities and convertible notes relates to the potential reduction in fair value and negative impact to future earnings, from an increase in interest rates. Market risk associated with the compound embedded derivative liabilities relates to the potential reduction in fair value and negative impact to future earnings from a decrease in interest rates.

The carrying amounts of certain financial instruments, such as cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities and low market interest rates, if applicable.

As of December 31, 2015, the Company’s financial assets and financial liabilities are presented below at fair value and were classified within the fair value hierarchy as follows (in thousands):

	Level 1	Level 2	Level 3	Balance as of December 31, 2015
Financial Assets				
Money market funds	$2,078	$—	$—	$2,078
Certificates of deposit	1,520	—	—	1,520
Total financial assets	$3,598	$—	$—	$3,598
Financial Liabilities				
Loans payable [(1)]	$—	$9,541	$—	$9,541
Credit facilities [(1)]	—	34,893	—	34,893
Convertible notes [(1)]	—	—	96,291	96,291
Compound embedded derivative liabilities	—	—	46,430	46,430
Currency interest rate swap derivative liability	—	5,009	—	5,009
Total financial liabilities	$—	$49,443	$142,721	$192,164

[(1)] These liabilities are carried on the consolidated balance sheet on a historical cost basis (noting that the Remaining Notes subject to the Maturity Treatment Agreement were revalued to fair value on July 29, 2015, see Note 5 “Debt” for details).

The following table provides a reconciliation of the beginning and ending balances for the convertible notes disclosed at fair value using significant unobservable inputs (Level 3) (in thousands):

	2016
Balance at January 1	$96,291
Additions of convertible notes	9,143
Conversion/extinguishment of convertible notes	(3,672)
Change in fair value of convertible notes	20,169
Balance at June 30	$121,931

Derivative Instruments

The following table provides a reconciliation of the beginning and ending balances for the compound embedded derivative liabilities measured at fair value using significant unobservable inputs (Level 3) (in thousands):

	2016
Balance at January 1	$46,430
Derecognition on conversion/extinguishment	(2,672)
Gain from change in fair value of derivative liabilities	(40,492)
Balance at June 30	$3,266

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The compound embedded derivative liabilities represent the fair value of the equity conversion options and "make-whole" provisions, as well as the down round conversion price adjustment or conversion rate adjustment provisions of the R&D Notes, the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes, the 2015 144A Notes and the 2016 Convertible Notes (see Note 5, "Debt"). There is no current observable market for these types of derivatives and, as such, the Company determined the fair value of the embedded derivatives using a Monte Carlo simulation valuation model for the R&D Notes and the binomial lattice model for the Tranche I Notes, the Tranche II Notes, the 2014 144A Notes, the 2015 144A Notes and the 2016 Convertible Notes (collectively, "the Convertible Notes"). A Monte Carlo simulation valuation model combines expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility, probability of a change of control and the trading information of the Company's common stock into which the notes are or may be convertible. A binomial lattice model generates two probable outcomes - one up and another down - arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was used to determine if the Convertible Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the Convertible Notes will be converted early if the conversion value is greater than the holding value and (ii) the Convertible Notes will be called if the holding value is greater than both (a) redemption price and (b) the conversion value at the time. If the Convertible Notes are called, then the holder will maximize their value by finding the optimal decision between (1) redeeming at the redemption price and (2) converting the Convertible Notes. Using this lattice method, the Company valued the embedded derivatives using the "with-and-without method", where the fair value of the Convertible Notes including the embedded derivative is defined as the "with", and the fair value of the Convertible Notes excluding the embedded derivatives is defined as the "without". This method estimates the fair value of the embedded derivatives by looking at the difference in the values between the Convertible Notes with the embedded derivatives and the fair value of the Convertible Notes without the embedded derivatives. The lattice model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. The Company marks the compound embedded derivatives to market due to the conversion price not being indexed to the Company's own stock. As of June 30, 2016 and December 31, 2015, included in "Derivative Liabilities" on the condensed consolidated balance sheet are the Company's compound embedded derivative liabilities of $3.3 million and $46.4 million, respectively.

The market-based assumptions and estimates used in valuing the compound embedded derivative liabilities include amounts in the following ranges/amounts:

	June 30, 2016			June 30, 2015		
Risk-free interest rate	0.30%	-	0.69%	0.30%	-	1.30%
Risk-adjusted yields	23.00%	-	27.50%	21.80%	-	31.90%
Stock-price volatility		45%			45%	
Probability of change in control		5%			5%	
Stock price		$0.45			$1.95	
Credit spread	22.35%	-	27.20%	20.61%	-	30.60%
Estimated conversion dates	2016	-	2019	2015	-	2019

Changes in valuation assumptions can have a significant impact on the valuation of the embedded derivative liabilities. For example, all other things being equal, a decrease/increase in the Company’s stock price, probability of change of control, credit spread, term to maturity/conversion or stock price volatility decreases/increases the valuation of the liabilities, whereas a decrease/increase in risk adjusted yields or risk-free interest rates increases/decreases the valuation of the liabilities. The conversion price of certain of the Convertible Notes also include conversion price adjustment features and for example, issuances of common stock by the Company at prices lower than the conversion price result in a reset of the conversion price of such notes, which increases the value of the embedded derivative liabilities. See Note 5, "Debt" for further details of conversion price adjustment features.

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In June 2012, the Company entered into a loan agreement with Banco Pine S.A. (or "Banco Pine") under which Banco Pine provided the Company with a loan (or the "Banco Pine Bridge Loan") (see Note 5, "Debt"). At the time of the Banco Pine Bridge Loan, the Company also entered into a currency interest rate swap arrangement with Banco Pine with respect to the repayment of R$22.0 million (approximately US$6.9 million based on the exchange rate as of June 30, 2016) of the Banco Pine Bridge Loan. The swap arrangement exchanges the principal and interest payments under the Banco Pine Bridge Loan for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign exchange rate between the U.S. dollar and Brazilian real. The swap has a fixed interest rate of 3.94%. Changes in the fair value of the swap are recognized in “Gain (loss) from change in fair value of derivative instruments" in the condensed consolidated statements of operations are as follows (in thousands):

	Income Statement Classification	Three Months Ended June 30,		Six Months Ended June 30,	
Type of Derivative Contract		2016	2015	2016	2015
Currency interest rate swap	Gain (loss) from change in fair value of derivative instruments	$1,275	$310	$2,120	$(1,405)

Derivative instruments measured at fair value as of June 30, 2016 and December 31, 2015, and their classification on the condensed consolidated balance sheets are as follows (in thousands):

	June 30, 2016	December 31, 2015
Fair market value of compound embedded derivative liabilities	$3,266	$46,430
Fair value of swap obligations	3,486	5,009
Total derivative liabilities	$6,752	$51,439

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4. Balance Sheet Components

Inventories, net

Inventories, net are stated at the lower of cost or market and comprise of the following (in thousands):

	June 30, 2016	December 31, 2015
Raw materials	$2,865	$2,204
Work-in-process	1,898	3,583
Finished goods	5,233	5,099
Inventories, net	$9,996	$10,886

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Property, Plant and Equipment, net

Property, plant and equipment, net is comprised of the following (in thousands):

	June 30, 2016	December 31, 2015
Machinery and equipment	$84,764	$72,876
Leasehold improvements	38,809	38,519
Computers and software	9,541	9,117
Buildings	4,772	3,922
Furniture and office equipment	2,340	2,234
Vehicles	197	215
Construction in progress	6,708	5,736
	147,131	132,619
Less: accumulated depreciation and amortization	(81,931)	(72,822)
Property, plant and equipment, net	$65,200	$59,797

The Company's first, purpose-built, large-scale Biofene production plant in southeastern Brazil commenced operations in December 2012. This plant is located at Brotas in the state of São Paulo, Brazil and is adjacent to an existing sugar and ethanol mill, Tonon Bioenergia S.A. (or "Tonon") (formerly Paraíso Bioenergia) with which the Company has an agreement to purchase a certain number of tons of sugarcane per year, along with specified water and vapor volumes.

Property, plant and equipment, net includes $2.3 million and $2.7 million of machinery and equipment under capital leases as of June 30, 2016 and December 31, 2015, respectively. Accumulated amortization of assets under capital leases totaled $0.3 million and $0.5 million as of June 30, 2016 and December 31, 2015, respectively.

Depreciation and amortization expense, including amortization of assets under capital leases was $2.8 million and $3.4 million for the three months ended June 30, 2016 and 2015, respectively, and $5.7 million and $6.8 million for the six months ended June 30, 2016 and 2015, respectively.

Other Assets (non-current)

Other assets are comprised of the following (in thousands):

	June 30, 2016	December 31, 2015
Recoverable taxes from Brazilian government entities	$ 10,940	$ 8,887
Deposits on property and equipment, including taxes	296	243
Other	1,397	1,227
Total other assets	$ 12,633	$ 10,357

Accrued and Other Current Liabilities

Accrued and other current liabilities are comprised of the following (in thousands):

	June 30, 2016	December 31, 2015
Withholding tax related to conversion of related party notes	$4,858	$4,723
Professional services	5,723	4,017
SMA relocation accrual	4,430	3,641
Accrued interest	5,205	1,984
Tax-related liabilities	2,588	2,505
Accrued vacation	2,194	2,023
Payroll and related expenses	2,775	3,122
Deferred rent, current portion	1,111	1,111
Contractual obligations to contract manufacturers	768	—
Other	1,205	1,142
Total accrued and other current liabilities	$30,857	$24,268

5. Debt and Mezzanine Equity

Debt is comprised of the following (in thousands):

	June 30, 2016	December 31, 2015
Senior secured loan facility	$28,344	$31,590
BNDES credit facility	1,785	1,956
FINEP credit facility	864	840
Total credit facilities	30,993	34,386
Convertible notes	72,402	61,233
Related party convertible notes	42,837	42,749
Related party loan payable	21,957	—
Loans payable	13,203	13,606
Total debt	181,392	151,974
Less: current portion	(79,979)	(36,281)
Long-term debt	$101,413	$115,693
Mezzanine equity[1]	$5,000	$—

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(1) See Note 8, "Significant Agreements" for details regarding the Bill & Melinda Gates Foundation Investment, classified as mezzanine equity.

Senior Secured Loan Facility

In March 2014, the Company entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc. (or “Hercules”) to make available to Amyris a loan facility in the aggregate principal amount of up to $25.0 million (or the "Senior Secured Loan Facility"), which loan facility was fully drawn at the closing. The initial loan of $25.0 million under the Senior Secured Loan Facility accrues interest at a rate per annum equal to the greater of either the prime rate reported in the Wall Street Journal plus 6.25% or 9.50%. The Company may repay the outstanding amounts under the Senior Secured Credit Facility before the maturity date (February 1, 2017) if it pays an additional fee of 1% of the outstanding loans. The Company was also required to pay a 1% facility charge at the closing of the Senior Secured Credit Facility, and is required to pay a 10% end of term charge with respect to the initial loan of $25.0 million. In connection with the execution of the Senior Secured Loan Facility, Amyris agreed to certain customary representations and warranties and covenants, as well as certain covenants that were subsequently amended (as described below).

In June 2014, the Company and Hercules entered into a first amendment of the Senior Secured Loan Facility. Pursuant to the first amendment, the parties agreed to adjust the term loan maturity date from May 31, 2015 to February 1, 2017 and remove (i) a requirement for the Company to pay a forbearance fee of $10.0 million in the event certain covenants were not satisfied, (ii) a covenant that the Company maintain positive cash flow commencing with the fiscal quarter beginning October 1, 2014, (iii) a covenant that, beginning with the fiscal quarter beginning July 1, 2014, the Company and its subsidiaries achieve certain projected cash product revenues and projected cash product gross profits, and (iv) an obligation for the Company to file a registration statement on Form S-3 with the SEC by no later than June 30, 2014 and complete an equity financing of more than $50.0 million by no later than September 30, 2014. The Company further agreed to include a new covenant requiring the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount then outstanding under the Senior Secured Loan Facility and borrow an additional $5.0 million. The additional $5.0 million borrowing was completed in June 2014, and accrues interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 5.25% and (ii) 8.5%.

In March 2015, the Company and Hercules entered into a second amendment of the Senior Secured Loan Facility. Pursuant to the second amendment, the parties agreed to, among other things, establish an additional credit facility in the principal amount of up to $15.0 million, which would be available to be drawn by the Company through the earlier of March 31, 2016 or such time as the Company raised an aggregate of at least $20.0 million through the sale of new equity securities. Under the terms of the second amendment, the Company agreed to pay Hercules a 3.0% facility availability fee on April 1, 2015. The Company had the ability to cancel the additional facility at any time prior to June 30, 2015 at its own option, and the additional facility would terminate upon the Company securing a new equity financing of at least $20.0 million. If the facility was not canceled, and any outstanding borrowings were not repaid, before June 30, 2015, an additional 5.0% facility fee would become payable on June 30, 2015. The Company did not cancel the facility prior to June 30, 2015, and the 5.0% facility fee became payable as of June 30, 2015. The Company did not pay the additional facility fee and thereafter received a waiver from Hercules with respect thereto. The additional facility was cancelled undrawn upon the completion of the Company’s private offering of common stock and warrants in July 2015.

In November 2015, the Company and Hercules entered into a third amendment of the Senior Secured Loan Facility. Pursuant to the third amendment, the Company borrowed $10,960,000 (or the “Third Amendment Borrowed Amount”) from Hercules on November 30, 2015. As of December 1, 2015, after the funding of the Third Amendment Borrowed Amount (and including repayment of $9.1 million of principal that had occurred prior to the third amendment), the aggregate principal amount outstanding under the Senior Secured Loan Facility was approximately $31.7 million. The Third Amendment Borrowed Amount accrues interest at a rate per annum equal to the greater of (i) 9.5% and (ii) the prime rate reported in the Wall Street Journal plus 6.25%, and, like the previous loans under the Senior Secured Loan Facility, has a maturity date of February 1, 2017. Upon the earlier of the maturity date, prepayment in full or such obligations otherwise becoming due and payable, in addition to repaying the outstanding Third Amendment Borrowed Amount (and all other amounts owed under the Senior Secured Loan Facility, as amended), the Company is also required to pay an end-of-term charge of $767,200. Pursuant to the third amendment, the Company also paid Hercules fees of $1.0 million, $750,000 of which was owed in connection with the expired $15.0 million facility under the second amendment and $250,000 of which was related to the Third Amendment Borrowed Amount. Under the third amendment, the parties agreed that the Company would, commencing on December 1, 2015, be required to pay only the interest accruing on all outstanding loans under the Senior Secured Loan Facility until February 29, 2016. Commencing on March 1, 2016, the Company would have been required to begin repaying principal of all loans under the Senior Secured Loan Facility, in addition to the applicable interest. However, pursuant to the third amendment, the

Company could, by achieving certain cash inflow targets in 2016, extend the interest-only period to December 1, 2016. Upon the issuance by the Company of $20.0 million of unsecured promissory notes and warrants in a private placement in February 2016 for aggregate cash proceeds of $20.0 million, the Company satisfied the conditions for extending the interest-only period to May 31, 2016. On June 1, 2016, the Company commenced the repayment of outstanding principal under the Senior Secured Loan Facility. In June 2016, the Company was notified by Hercules that it had transferred and assigned its rights and obligations under the Senior Secured Loan Facility to Stegodon Corporation (or “Stegodon”). On June 29, 2016, the Company received a deferment from Stegodon of all scheduled principal repayments under the Senior Secured Loan Facility through October 31, 2016. Refer to Note 8, “Significant Agreements” for additional details.

As of June 30, 2016, $28.3 million was outstanding under the Senior Secured Loan Facility, net of discount and issuance costs of $0.2 million. The Senior Secured Loan Facility is secured by liens on the Company's assets, including on certain Company intellectual property. The Senior Secured Loan Facility includes customary events of default, including failure to pay amounts due, breaches of covenants and warranties, material adverse effect events, certain cross defaults and judgments, and insolvency. If an event of default occurs, Stegodon may require immediate repayment of all amounts outstanding under the Senior Secured Loan Facility. The Senior Secured Loan Facility also requires the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount outstanding under the Senior Secured Loan Facility. The Company has received a waiver of compliance with such covenant through October 31, 2016. Refer to Note 8, “Significant Agreements” for additional details. Stegodon did not accelerate the amounts due to it and the Company was in compliance with the other covenants under the Senior Secured Loan Facility as of June 30, 2016. In addition, the balance sheet classification of the Company’s other debt instruments was not impacted by the breach of the covenant.

BNDES Credit Facility

In December 2011, the Company entered into a credit facility with the Brazilian Development Bank (or “BNDES” and such credit facility is the “BNDES Credit Facility”) in the amount of R$22.4 million (approximately US$7.0 million based on the exchange rate as of June 30, 2016). This BNDES Credit Facility was extended as project financing for a production site in Brazil. The credit line was divided into an initial tranche of up to approximately R$19.1 million and an additional tranche of approximately R$3.3 million that would become available upon delivery of additional guarantees. The credit line was cancelled in 2013.

The principal of the loans under the BNDES Credit Facility is required to be repaid in 60 monthly installments, with the first installment paid in January 2013 and the last due in December 2017. Interest was due initially on a quarterly basis with the first installment due in March 2012. From and after January 2013, interest payments are due on a monthly basis together with principal payments. The loaned amounts carry interest of 7% per annum. Additionally, there is a credit reserve charge of 0.1% on the unused balance from each credit installment from the day immediately after it is made available through its date of use, when it is paid.

The BNDES Credit Facility is collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets totaling R$24.9 million (approximately $7.8 million based on the exchange rate as of June 30, 2016). The Company is a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company was required to provide a bank guarantee equal to 10% of the total approved amount (R$22.4 million in total debt) available under the BNDES Credit Facility. For advances of the second tranche (above R$19.1 million), the Company is required to provide additional bank guarantees equal to 90% of each such advance, plus additional Company guarantees equal to at least 130% of such advance. The BNDES Credit Facility contains customary events of default, including payment failures, failure to satisfy other obligations under this credit facility or related documents, defaults in respect of other indebtedness, bankruptcy, insolvency and inability to pay debts when due, material judgments, and changes in control of Amyris Brasil. If any event of default occurs, BNDES may terminate its commitments and declare immediately due all borrowings under the facility. As of June 30, 2016 and December 31, 2015, the Company had R$5.7 million (approximately US$1.8 million based on the exchange rate as of June 30, 2016) and R$7.6 million (approximately US$1.9 million based on the exchange rate as of December 31, 2015), respectively, in outstanding advances under the BNDES Credit Facility.

FINEP Credit Facility

In November 2010, the Company entered into a credit facility with Financiadora de Estudos e Projetos (or the "FINEP Credit Facility"). The FINEP Credit Facility was extended to partially fund expenses related to the Company's research and development project on sugarcane-based biodiesel (or the "FINEP Project") and provided for loans of up to an aggregate principal amount of R$6.4 million (approximately US$2.0 million based on the exchange rate as of June 30, 2016), which is secured by a chattel mortgage on certain equipment of Amyris Brasil as well as by bank letters of guarantee. All available credit under this facility is fully drawn.

Interest on loans drawn under the FINEP Credit Facility is fixed at 5% per annum. In case of default under or non-compliance with the terms of the agreement, the interest on loans will be dependent on the long-term interest rate as published by the Central Bank of Brazil (such rate, the “TJLP”). If the TJLP at the time of default is greater than 6%, then the interest will be 5% plus a TJLP adjustment factor, otherwise the interest will be 11% per annum. In addition, a fine of up to 10% shall apply to the amount of any obligation in default. Interest on late balances will be 1% per month, levied on the overdue amount. Payment of the outstanding loan balance is being made in 81 monthly installments, which commenced in July 2012 and extends through March 2019. Interest on loans drawn and other charges are paid on a monthly basis and commenced in March 2011. As of June 30, 2016 and December 31, 2015, the total outstanding loan balance under this credit facility was R$2.8 million (approximately US$0.9 million based on the exchange rate as of June 30, 2016) and R$3.4 million (approximately US$0.9 million based on exchange rate as of December 31, 2015), respectively.

Convertible Notes

Fidelity

In February 2012, the Company completed the sale of senior unsecured convertible promissory notes in an aggregate principal amount of $25.0 million pursuant to a securities purchase agreement, between the Company and certain investment funds affiliated with FMR LLC (or the "Fidelity Securities Purchase Agreement"). The offering consisted of the sale of 3% senior unsecured convertible promissory notes with a March 1, 2017 maturity date and an initial conversion price equal to $7.0682 per share of the Company's common stock, subject to proportional adjustment for adjustments to outstanding common stock and anti-dilution provisions in case of dividends and distributions (or the "Fidelity Notes"). In October 2015, the Company issued $57.6 million of convertible senior notes and used approximately $8.8 million of the proceeds therefrom to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes. As of June 30, 2016, the Fidelity Notes were convertible into an aggregate of up to 2,165,898 shares of the Company's common stock. The holders of the Fidelity Notes have a right to require repayment of 101% of the principal amount of the Fidelity Notes in an acquisition of the Company, and the Fidelity Notes provide for payment of unpaid interest on conversion following such an acquisition if the note holders do not require such repayment. The Fidelity Securities Purchase Agreement and Fidelity Notes include covenants regarding payment of interest, maintaining the Company's listing status, limitations on debt, maintenance of corporate existence, and timely filing of SEC reports. The Fidelity Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults and breaches of the covenants in the Fidelity Securities Purchase Agreement and Fidelity Notes, with default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, the Fidelity Notes include restrictions on the amount of debt the Company is permitted to incur. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the Fidelity Notes provide that the Company's total outstanding debt at any time cannot exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt cannot exceed the greater of $125.0 million or 30% of its consolidated total assets. In connection with the Company’s closing of a short-term bridge loan for $35.0 million in October 2013, holders of the Fidelity Notes waived compliance with the debt limitations outlined above as to the $35.0 million bridge loan (or the “Temasek Bridge Note”) and the August 2013 Financing (defined below). In consideration for such waiver, the Company granted to holders of the Fidelity Notes or their affiliates the right to purchase up to an aggregate of $7.6 million worth of convertible promissory notes in the first tranche of the August 2013 Financing.

Pursuant to a Securities Purchase Agreement among the Company, Maxwell (Mauritius) Pte Ltd (or “Temasek”) and Total, dated as of August 8, 2013 (or, as amended, the “August 2013 SPA”), as amended in October 2013 to include certain entities affiliated with FMR LLC (or the “Fidelity Entities”), the Company sold and issued certain senior convertible notes (or the “Tranche I Notes”) pursuant to a financing (or the “August 2013 Financing”) exempt from registration under the Securities Act of 1933, as amended (or the “Securities Act”), in an aggregate principal amount of $7.6 million to the Fidelity Entities. See "Related Party Convertible Notes" in this Note 5, "Debt."

2014 Rule 144A Convertible Note Offering

In May 2014, the Company entered into a Purchase Agreement with Morgan Stanley & Co. LLC, as the initial purchaser (or the “Initial Purchaser”), relating to the sale of $75.0 million aggregate in principal amount of its 6.50% Convertible Senior Notes due 2019 (or the "2014 144A Notes") to the Initial Purchaser in a private placement, and for initial resale by the Initial Purchaser to certain qualified institutional buyers (or the "2014 144A Convertible Note Offering"). In addition, the Company granted the Initial Purchaser an option to purchase up to an additional $15.0 million aggregate principal amount of 2014 144A Notes, which option expired unexercised according to its terms. Under the terms of the purchase agreement for the 2014 144A Notes, the Company agreed to customary indemnification of the Initial Purchaser against certain liabilities. The Notes were issued pursuant to an Indenture, dated as of May 29, 2014 (or the “2014 Indenture”), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2014 144A Notes were approximately $72.0 million after payment of the Initial Purchaser’s discounts and offering expenses. In addition, in connection with obtaining a waiver from Total of its preexisting contractual right to exchange certain senior secured convertible notes previously issued by the Company for new notes issued in the 2014 144A Convertible Note Offering, the Company used approximately $9.7 million of the net proceeds to repay previously issued notes (representing the amount of 2014 144A Notes purchased by Total from the Initial Purchaser). Certain of the Company's affiliated entities purchased $24.7 million in aggregate principal amount of 2014 144A Notes from the Initial Purchaser (described further below under "Related Party Convertible Notes"). In October 2015, the Company issued $57.6 million of convertible senior notes and used approximately $18.3 million of the net proceeds therefrom to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes. The 2014 144A Notes bear interest at a rate of 6.50% per year, payable semiannually in arrears on May 15 and November 15 of each year, beginning November 15, 2014. The 2014 144A Notes mature on May 15, 2019, unless earlier converted or repurchased. The 2014 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business day on May 15, 2019, at the initial conversion rate of 267.037 shares of Common Stock per $1,000 principal amount of 2014 144A Notes (subject to adjustment in certain circumstances). This represents an effective conversion price of approximately $3.74 per share of common stock. For any conversion on or after May 15, 2015, in the event that the last reported sale price of the Company’s common stock for 20 or more trading days (whether or not consecutive) in a period of 30 consecutive trading days ending within five trading days immediately prior to the date the Company receives a notice of conversion exceeds the then-applicable conversion price per share on each such trading day, the holders, in addition to the shares deliverable upon conversion, noteholders will be entitled to receive a cash payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2014 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (May 15, 2019), which will be computed using a discount rate of 0.75%. In the event of a fundamental change, as defined in the 2014 Indenture, holders of the 2014 144A Notes may require the Company to purchase all or a portion of the 2014 144A Notes at a price equal to 100% of the principal amount of the 2014 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2014 144A Notes who convert their 2014 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. Refer to the “Exchange” and “Maturity Treatment Agreement” sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange agreements on the 2014 144A Notes.

2015 Rule 144A Convertible Note Offering

In October 2015, the Company entered into a purchase agreement with certain qualified institutional buyers relating to the sale of $57.6 million aggregate principal amount of its 9.50% Convertible Senior Notes due 2019 (or the "2015 144A Notes") to the purchasers in a private placement (or the "2015 144A Offering"). The Notes were issued pursuant to an Indenture, dated as of October 20, 2015 (or the "2015 Indenture"), between the Company and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 2015 144A Notes were approximately $54.4 million after payment of the estimated offering expenses and placement agent fees. The Company used approximately $18.3 million of the net proceeds to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes and approximately $8.8 million to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes, in each case held by purchasers of the 2015 144A Notes. The 2015 144A Notes bear interest at a rate of 9.50% per year, payable semiannually in arrears on April 15 and October 15 of each year, beginning April 15, 2016. Interest on the 2015 144A Notes is payable, at the Company's option, entirely in cash or entirely in common stock. The Company elected to make the April 15, 2016 interest payment in shares of common stock. The 2015 144A Notes will mature on April 15, 2019 unless earlier converted or repurchased.

The 2015 144A Notes are convertible into shares of the Company's common stock at any time prior to the close of business on April 15, 2019. The 2015 144A Notes had an initial conversion rate of 443.6557 shares of Common Stock per $1,000 principal amount of 2015 144A Notes (subject to adjustment in certain circumstances). This represented an initial effective conversion price of approximately $2.25 per share of common stock. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, as described below, the conversion rate of the 2015 144A Notes was adjusted to 445.2552 shares of Common Stock per $1,000 principal amount of 2015 144A Notes. For any conversion on or after November 27, 2015, in addition to the shares deliverable upon conversion, noteholders will be entitled to receive a payment equal to the present value of the remaining scheduled payments of interest that would have been made on the 2015 144A Notes being converted from the conversion date to the earlier of the date that is three years after the date the Company receives such notice of conversion and maturity (April 15, 2019), which will be computed using a discount rate of 0.75%. The Company may make such payment (the “Early Conversion Payment”) either in cash or in common stock, at its election, provided that it may only make such payment in common stock if such common stock is not subject to restrictions on transfer under the Securities Act by persons other than the Company’s affiliates. If the Company elects to pay an Early Conversion Payment in common stock, then the stock will be valued at 92.5% of the simple average of the daily volume-weighted average price per share for the 10 trading days ending on and including the trading day immediately preceding the conversion date. In the event of a fundamental change, as defined in the 2015 Indenture, holders of the 2015 144A Notes may require the Company to purchase all or a portion of the 2015 144A Notes at a price equal to 100% of the principal amount of the 2015 144A Notes, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, holders of the 2015 144A Notes who convert their 2015 144A Notes in connection with a make-whole fundamental change will, under certain circumstances, be entitled to an increase in the conversion rate. The issuance of shares of common stock upon conversion of the 2015 144A Notes, upon the Company’s election to pay interest on the 2015 144A Notes in shares of common stock and upon the Company’s election to pay the Early Conversion Payment in shares of common stock in an aggregate amount in excess of 38,415,626 shares of the Company’s common stock was subject to stockholder approval, which was obtained on May 17, 2016. With exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the 2015 144A Notes provide that, as long as the aggregate outstanding principal amount of the 2015 144A Notes exceeds $25.0 million, the Company's outstanding unsecured debt at any time cannot exceed $200.0 million and its secured debt cannot exceed the greater of $65.0 million or 30% of its consolidated total assets.

May 2016 Convertible Note Offering

In May 2016, the Company entered into a securities purchase agreement (or the “May 2016 Purchase Agreement”) between the Company and a private investor relating to the sale of up to $15.0 million aggregate principal amount of convertible notes (or the “2016 Convertible Notes”) that are convertible into shares of the Company’s common stock at an initial conversion price of $1.90 per share. The conversion price will be subject to adjustment in the event of any stock split, reverse stock split, recapitalization, reorganization or similar transaction. The May 2016 Purchase Agreement includes customary representations, warranties and covenants by the Company. The May 2016 Purchase Agreement also provides the purchaser with a right of first refusal with respect to any variable rate transaction on the same terms and conditions as are offered to a third-party purchaser for as long as the purchaser holds any 2016 Convertible Notes or shares of the Company’s common stock underlying the 2016 Convertible Notes.

The 2016 Convertible Notes will be issued and sold in two separate closings. The initial closing occurred on May 10, 2016. At the initial closing, the Company issued and sold a 2016 Convertible Note in a principal amount of $10.0 million to the purchaser, resulting in net proceeds to the Company of approximately $9.9 million. The second closing will occur on the first trading day following the completion of the first three installment periods under the 2016 Convertible Notes and the satisfaction or waiver of certain other closing conditions, including certain equity conditions, such as that no Triggering Event (as defined below) has occurred. At the second closing, the Company will issue and sell a 2016 Convertible Note in a principal amount of $5.0 million to the purchaser, resulting in expected net proceeds to the Company of approximately $5.0 million.

The 2016 Convertible Notes and the common stock underlying the 2016 Convertible Notes are being offered and sold pursuant to a prospectus filed with the Securities and Exchange Commission (or the “SEC”) on April 9, 2015 and a prospectus supplement dated May 10, 2016, in connection with a takedown from the Company’s effective shelf registration statement on Form S-3 (File No. 333-203216) declared effective by the SEC on April 15, 2015.

The 2016 Convertible Notes are general unsecured obligations of the Company. Unless earlier converted or redeemed, the 2016 Convertible Notes will mature on the 18-month anniversary of their respective issuance, subject to the rights of the holders to extend the maturity date in certain circumstances.

The 2016 Convertible Notes will be payable in monthly installments, in either cash at 118% of such installment amount or, at the Company's option, subject to the satisfaction of certain equity conditions, shares of common stock at a discount to the then-current market price, subject to a price floor. In addition, in the event that the Company elects to pay all or any portion of a monthly installment in common stock, the holders of the 2016 Convertible Notes shall have the right to require that the Company repay in common stock an additional amount of the 2016 Convertible Notes not to exceed 50% of the cumulative sum of the aggregate amounts by which the dollar-weighted trading volume of the Company's common stock for all trading days during the applicable installment period exceeds $200,000. The Company elected to make the June installment payment in shares of common stock.

The 2016 Convertible Notes contain customary terms and covenants, including certain events of default after which the holders may require the Company to redeem all or any portion of their 2016 Convertible Notes in cash at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of common stock issuable upon an installment payment of the amount being redeemed in shares.

In the event of a Fundamental Transaction (as defined in the 2016 Convertible Notes), holders of the 2016 Convertible Notes may require the Company to redeem all or any portion of their 2016 Convertible Notes at a price equal to the greater of (i) 118% of the amount being redeemed and (ii) the intrinsic value of the shares of common stock issuable upon an installment payment of the amount being redeemed in shares.

The Company has the right to redeem the 2016 Convertible Notes for cash, in whole, at any time, or in part, from time to time, at a redemption price equal to 118% of the principal amount of the 2016 Convertible Notes being redeemed. In addition, if the volume-weighted average price of the Company's common stock is (i) less than $1.00 for 30 consecutive trading days or (ii) less than $0.50 for five consecutive trading days (each, a "Triggering Event") within four months of the issuance of any 2016 Convertible Notes, the Company will have the option to redeem such 2016 Convertible Notes in whole for cash at a redemption price equal to 112% of the principal amount of such 2016 Convertible Notes.

Related Party Convertible Notes

Total R&D Convertible Notes

In July 2012 and December 2013, the Company entered into a series of agreements (or the "Total Fuel Agreements") with Total Energies Nouvelles Activités USA (formerly known as Total Gas & Power USA, SAS, and referred to as "Total") to establish a research and development program (or the "Program") and form a joint venture (or the "Fuels JV") with Total to produce and commercialize farnesene- or farnesane-based diesel and jet fuels, and established a convertible debt structure for the collaboration funding from Total.

The purchase agreement for the notes related to the funding from Total (or the “Total Purchase Agreement”) provided for the sale of an aggregate of $105.0 million in 1.5% Senior Unsecured Convertible Notes due March 2017 (the “Unsecured R&D Notes”) as follows:

- As part of an initial closing under the purchase agreement (which was completed in two installments), (i) on July 30, 2012, the Company sold an Unsecured R&D Note with a principal amount of $38.3 million, including $15.0 million in new funds and $23.3 million in previously-provided diesel research and development funding by Total, and (ii) on September 14, 2012, the Company sold another Unsecured R&D Note for $15.0 million in new funds from Total. These Unsecured R&D Notes had an initial conversion price of $7.0682 per share.

- At a second closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $30.0 million in new funds from Total ($10.0 million in June 2013 and $20.0 million in July 2013). These Unsecured R&D Notes had an initial conversion price of $3.08 per share, as described below.

- At a third closing under the Total Purchase Agreement (also completed in two installments) the Company sold additional Unsecured R&D Notes for an aggregate of $21.7 million in new funds from Total ($10.85 million in July 2014 and $10.85 million in January 2015) (or the “Third Closing Notes”). These Unsecured R&D Notes had an initial conversion price of $4.11 per share, as described below.

In March 2013, the Company entered into a letter agreement with Total (or the March 2013 Letter Agreement) under which Total agreed to waive its right to cease its participation in the parties' fuels collaboration at the July 2013 decision point and committed to proceed with the July 2013 funding tranche of $30.0 million (subject to the Company's satisfaction of the relevant closing conditions for such funding in the Total Purchase Agreement). As consideration for this waiver and commitment, the Company agreed to:

- reduce the conversion price for the $30.0 million in principal amount of Unsecured R&D Notes to be issued in connection with the second closing of the Unsecured R&D Notes (as described above) from $7.0682 per share to a price per share equal to the greater of (i) the consolidated closing bid price of the Company's common stock on the date of the March 2013 Letter Agreement, plus $0.01, and (ii) $3.08 per share, provided that the conversion price would not be reduced by more than the maximum possible amount permitted under the rules of The NASDAQ Stock Market (or "NASDAQ") such that the new conversion price would require the Company to obtain stockholder consent; and

- grant Total a senior security interest in the Company's intellectual property, subject to certain exclusions and subject to release by Total when the Company and Total enter into final documentation regarding the establishment of the Fuels JV.

In addition to the waiver by Total described above, Total also agreed that, at the Company's request and contingent upon the Company meeting its obligations described above, it would pay advance installments of the amounts otherwise payable at the second closing.

In June 2013, the Company sold and issued $10.0 million in principal amount of Unsecured R&D Notes to Total pursuant to the second closing of the Unsecured R&D Notes as discussed above. In accordance with the March 2013 Letter Agreement, this Unsecured R&D Note had an initial conversion price equal to $3.08 per share of the Company's common stock.

In July 2013, the Company sold and issued $20.0 million in principal amount of Unsecured R&D Notes to Total pursuant to the Total second closing of the Unsecured R&D Notes as discussed above. This purchase and sale completed Total's commitment to purchase $30.0 million of the Unsecured R&D Notes in the second closing by July 2013. In accordance with the March 2013 Letter Agreement, this Unsecured R&D Note has an initial conversion price equal to $3.08 per share of the Company's common stock.

In December 2013, in connection with the Company's entry into a Shareholders Agreement dated December 2, 2013 and License Agreement dated December 2, 2013 (or, collectively, the “JV Documents”) with Total and Total Amyris BioSolutions B.V. (or “TAB”) relating to the establishment of TAB (see Note 7, "Joint Ventures and Noncontrolling Interest"), the Company (i) exchanged the $69.0 million of the then-outstanding Unsecured R&D Notes issued pursuant to the Total Purchase Agreement for replacement 1.5% Senior Secured Convertible Notes due March 2017 (or the “Secured R&D Notes”, or together with the Unsecured R&D Notes, the “R&D Notes”), in principal amounts equal to the principal amount of each cancelled note and with substantially similar terms except that such replacement notes were secured, (ii) granted to Total a security interest in and lien on all Amyris’ rights, title and interest in and to Company’s shares in the capital of TAB and (iii) agreed that any securities to be purchased and sold at the third closing under the Total Purchase Agreement by Total would be Secured R&D Notes instead of Unsecured R&D Notes. As a consequence of executing the JV Documents and forming TAB, the security interest in all of the Company's intellectual property, granted by the Company in favor of Total, Temasek, and certain Fidelity Entities pursuant to the Restated Intellectual Property Security Agreement dated as of October 16, 2013, were automatically terminated effective as of December 2, 2013 upon Total’s and the Company’s joint written notice to Temasek and the Fidelity Entities.

In April 2014, the Company and Total entered into a letter agreement dated as of March 29, 2014 (or the “March 2014 Total Letter Agreement”) to amend the Amended and Restated Master Framework Agreement entered into as of December 2, 2013 (included as part of JV Documents) and the Total Purchase Agreement. Under the March 2014 Total Letter Agreement, the Company agreed to, (i) amend the conversion price of the Secured R&D Notes to be issued in the third closing under the Total Purchase Agreement from $7.0682 per share to $4.11 per share subject to stockholder approval at the Company's 2014 annual meeting (which was obtained in May 2014), (ii) extend the period during which Total may exchange for other Company securities Secured R&D Notes issued under the Total Fuel Agreements from June 30, 2014 to the later of December 31, 2014 and the date on which the Company shall have raised $75.0 million of equity and/or convertible debt financing (excluding any convertible promissory notes issued pursuant to the Total Purchase Agreement), (iii) eliminate the Company’s ability to qualify, in a disclosure letter to Total, certain of the representations and warranties that the Company must make at the closing of any third closing sale, and (iv) beginning on March 31, 2014, provide Total with monthly reporting on the Company’s cash, cash equivalents and short-term investments. In consideration of these agreements, Total agreed to waive its right not to consummate the closing of the issuance of the Third Closing Notes if it had decided not to proceed with the collaboration and had made a "No-Go" decision with respect thereto.

In July 2014, the Company sold and issued a Secured R&D Note to Total with a principal amount of $10.85 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement. This purchase and sale constituted the initial installment of the $21.7 million third closing described above. In accordance with the March 2014 Total Letter Agreement, this convertible note had an initial conversion price equal to $4.11 per share of the Company's common stock.

In January 2015, the Company sold and issued a Secured R&D Note to Total with a principal amount of $10.85 million with a March 1, 2017 maturity date pursuant to the Total Purchase Agreement. This purchase and sale constituted the final installment of the $21.7 million third closing described above. In accordance with the March 2014 Total Letter Agreement, this convertible note had an initial conversion price equal to $4.11 per share of the Company's common stock.

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In July 2015, Total exchanged all but $5.0 million of R&D Notes then held by Total, such cancelled notes having an aggregate principal amount of $70 million, in exchange for approximately 30.4 million shares of the Company’s common stock in connection with the Exchange. Refer to the “Exchange” section of this Note 5, "Debt", for additional details of the impact of the Exchange Agreement on the R&D Notes.

In March 2016, in connection with the restructuring of the Fuels JV (see Note 7, "Joint Ventures and Noncontrolling Interest"), the Company sold to Total one half of the Company’s ownership stake in the Fuels JV (giving Total an aggregate ownership stake of 75% of the Fuels JV and giving the Company an aggregate ownership stake of 25% of the Fuels JV) in exchange for Total cancelling (i) approximately $1.3 million of R&D Notes, plus all paid-in-kind and accrued interest under all outstanding R&D Notes ($2.8 million, including all such interest that was outstanding as of July 29, 2015) and (ii) a note in the principal amount of Euro 50,000, plus accrued interest, issued to Total in connection with the original capitalization of the Fuels JV. To satisfy its purchase obligation above, Total surrendered to the Company the remaining R&D Note of approximately $5.0 million in principal amount, and the Company executed and delivered to Total a new, Unsecured R&D Note in the principal amount of $3.7 million. The disposal of the 25% ownership stake in the Fuels JV resulted in a gain to the Company of $4.2 million, which was recognized as a capital contribution from Total within equity.

As of June 30, 2016 and December 31, 2015, $3.7 million and $5.0 million, respectively, of R&D Notes were outstanding, net of debt discount of $0.0 million and $0.0 million, respectively. The R&D Notes have a maturity date of March 1, 2017, an initial conversion price equal to $3.08 per share for the Unsecured R&D Notes, subject to certain adjustments as described below. The R&D Notes bear interest of 1.5% per annum (with a default rate of 2.5%), accruing from the date of issuance and payable at maturity or on conversion or a change of control where Total exercises the right to require the Company to repay the notes, as described below.

The R&D Notes become convertible into the Company's common stock (i) within 10 trading days prior to maturity, (ii) on a change of control of the Company, and (iii) on a default by the Company. The conversion price of the R&D Notes are subject to adjustment for proportional adjustments to outstanding common stock and under anti-dilution provisions in case of certain dividends and distributions. Total has a right to require repayment of 101% of the principal amount of the R&D Notes in the event of a change of control of the Company and the R&D Notes provide for payment of unpaid future interest through the maturity date on conversion following such a change of control if Total does not require such repayment. The Total Purchase Agreement and Unsecured R&D Notes include covenants regarding payment of interest, maintenance of the Company's listing status, limitations on debt, maintenance of corporate existence, and filing of SEC reports. The R&D Notes include standard events of default resulting in acceleration of indebtedness, including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the Total Purchase Agreement and R&D Notes, with added default interest rates and associated cure periods applicable to the covenant regarding SEC reporting. Furthermore, with exceptions for certain existing debt, refinancing of such debt and certain other exclusions and waivers, the R&D Notes provided that the Company's total outstanding debt at any time may not exceed the greater of $200.0 million or 50% of its consolidated total assets and its secured debt may not exceed the greater of $125.0 million or 30% of its consolidated total assets.

August 2013 Financing Convertible Notes and Temasek Bridge Note

In connection with the August 2013 Financing, the Company entered into the August 2013 Share Purchase Agreement with Total and Temasek to sell up to $73.0 million in convertible promissory notes in private placements, with such notes to be sold and issued over a period of up to 24 months from the date of signing. The August 2013 SPA provided for the August 2013 Financing to be divided into two tranches (the first tranche for $42.6 million and the second tranche for $30.4 million), each with differing closing conditions. Of the total possible purchase price in the financing, $25.0 million was paid in the form of cash by Temasek ($25.0 million in the second tranche), $35.0 million was paid by the exchange and cancellation of the Temasek Bridge Note, as described below, and $13.0 million was paid by the exchange and cancellation of outstanding convertible promissory notes held by Total in connection with its exercise of pro rata rights ($7.6 million in the first tranche and $5.4 million in the second tranche). The August 2013 SPA included requirements that the Company meet certain production milestones before the second tranche would become available, obtain stockholder approval prior to completing any closing of the transaction, and issue a warrant to Temasek to purchase 1,000,000 shares of the Company's common stock at an exercise price of $0.01 per share, exercisable only if Total converts notes previously issued to Total in the second closing under the Total Purchase Agreement. In September 2013, prior to the initial closing of the August 2013 Financing, the Company's stockholders approved the issuance in the private placement of up to $110.0 million aggregate principal amount of senior convertible promissory notes, the issuance of a warrant to purchase 1,000,000 shares of the Company's common stock and the issuance of the common stock issuable upon conversion or exercise of such notes and warrant, which approval included the transactions contemplated by the August 2013 Financing.

In October 2013, the Company sold and issued a senior secured promissory note to Temasek (the "Temasek Bridge Note") in exchange for a bridge loan of $35.0 million. The Temasek Bridge Note was due on February 2, 2014 and accrued interest at a rate of 5.5% quarterly from the October 4, 2013 date of issuance. The Temasek Bridge Note was cancelled on October 16, 2013 as payment for Temasek's purchase of Tranche I Notes in the first tranche of the August 2013 Financing, as further described below.

In October 2013, the Company amended the August 2013 SPA to include the investment by the Fidelity Entities in the first tranche of the August 2013 Financing of $7.6 million, and to proportionally increase the amount of first tranche notes acquired by exchange and cancellation of outstanding R&D Notes held by Total in connection with its exercise of pro rata rights up to $9.2 million in the first tranche. Also in October 2013, the Company completed the closing of the first tranche of the August 2013 Financing, issuing a total of $51.8 million in Tranche I Notes for cash proceeds of $7.6 million and cancellation of outstanding convertible promissory notes of $44.2 million, of which $35.0 million resulted from cancellation of the Temasek Bridge Note and the remaining $9.2 million from the exchange and cancellation of an outstanding Total Note. As a result of the exchange and cancellation of the $35.0 million Temasek Bridge Note and the $9.2 million Total Note for the Tranche I Notes, the Company recorded a loss from extinguishment of debt of $19.9 million. The Tranche I Notes are due sixty months from the date of issuance and were initially convertible into the Company's common stock at a conversion price equal to $2.44, which represents a 15% discount to a trailing 60-day weighted-average closing price of the common stock on The NASDAQ Stock Market (or "NASDAQ") through August 7, 2013, subject to certain adjustments, as described below. The Tranche I Notes are convertible at the option of the holder: (i) at any time after 18 months from the date of the August 2013 SPA, (ii) on a change of control of the Company and (iii) upon the occurrence of an event of default. Each Tranche I Note accrues interest from the date of issuance until the earlier of the date that such Tranche I Note is converted into the Company's common stock or is repaid in full. Interest accrues at a rate of 5% per six months, compounded semiannually (with graduated interest rates of 6.5% applicable to the first 180 days and 8% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or at 6.5% for all other defaults). Interest for the first 30 months is payable in kind and added to the principal every six months and thereafter, the Company may continue to pay interest in kind by adding to the principal every six months or may elect to pay interest in cash. To date, the Company has elected to pay interest on the Tranche I Notes in kind. The Tranche I Notes may be prepaid by the Company on the 30-month anniversary of the issuance date, and thereafter every six months at the date of payment of the semi-annual coupon.

In January 2014, the Company sold and issued, for face value, approximately $34.0 million of convertible promissory notes in the second tranche of the August 2013 Financing (or the "Tranche II Notes"). At the closing, Temasek purchased $25.0 million of the Tranche II Notes and funds affiliated with Wolverine Asset Management, LLC purchased $3.0 million of the Tranche II Notes, each for cash. Total purchased approximately $6.0 million of the Tranche II Notes through cancellation of the same amount of principal of previously outstanding R&D Notes held by Total. As a result of the exchange and cancellation of the $6.0 million Total Note for the Tranche II Notes, the Company recorded a loss from extinguishment of debt of $9.4 million. The Tranche II Notes will be due sixty months from the date of issuance and were initially convertible into shares of common stock at a conversion price equal to $2.87 per share, which represents a trailing 60-day weighted-average closing price of the common stock on NASDAQ through August 7, 2013, subject to certain adjustments, as described below. Specifically, the Tranche II Notes are convertible at the option of the holder (i) at any time 12 months after issuance, (ii) on a change of control of the Company, and (iii) upon the occurrence of an event of default. Each Tranche II Note will accrue interest from the date of issuance until the earlier of the date that such Tranche II Note is converted into common stock or repaid in full. Interest will accrue at a rate per annum equal to 10%, compounded annually (with graduated interest rates of 13%

applicable to the first 180 days and 16% applicable thereafter as the sole remedy should the Company fail to maintain NASDAQ listing status or at 12% for all other defaults). Interest for the first 36 months shall be payable in kind and added to principal every year following the issue date and thereafter, the Company may continue to pay interest in kind by adding to principal on every year anniversary of the issue date or may elect to pay interest in cash. To date, the Company has elected to pay interest on the Tranche II Notes in kind.

The conversion prices of the Tranche I Notes and Tranche II Notes are subject to adjustment (i) according to proportional adjustments to outstanding common stock of the Company in case of certain dividends and distributions, (ii) according to anti-dilution provisions, and (iii) with respect to notes held by any purchaser other than Total, in the event that Total exchanges existing convertible notes for new securities of the Company in connection with future financing transactions in excess of its pro rata amount. Notwithstanding the foregoing, holders of a majority of the principal amount of the notes outstanding at the time of conversion may waive any anti-dilution adjustments to the conversion price. The purchasers have a right to require repayment of 101% of the principal amount of the notes in the event of a change of control of the Company and the notes provide for payment of unpaid interest on conversion following such a change of control if the purchasers do not require such repayment. The August 2013 SPA, Tranche I Notes and Tranche II Notes include covenants regarding payment of interest, maintenance of the Company’s listing status, limitations on debt and on certain liens, maintenance of corporate existence, and filing of SEC reports. The Tranche Notes include standard events of default including failure to pay, bankruptcy and insolvency, cross-defaults, and breaches of the covenants in the August 2013 SPA, Tranche I Notes and Tranche II Notes, after which the Tranche Notes may be due and payable immediately, as well as associated with default interest rates as set forth above.

In July 2015, Temasek exchanged all of the Tranche I and Tranche II Notes then held by Temasek, such notes having an aggregate principal amount of $71.0 million, in exchange for approximately 30.86 million shares of the Company’s common stock in connection with the Exchange. Refer to the “Exchange” section of this Note 5, "Debt", for additional details of the impact of the Exchange Agreement on the R&D Notes.

The conversion price of the Tranche I Notes and Tranche II Notes was reduced to $1.42 per share upon the completion of a private placement of common stock and warrants to purchase common stock in July 2015, as described below. Following the issuance by the Company of warrants to purchase common stock in a private placement transaction in February 2016, as described below, the conversion price of the Tranche I Notes and Tranche II Notes was further adjusted to $1.40 per share, and following the sale by the Company of shares of common stock to the Bill & Melinda Gates Foundation in May 2016, as described below, the conversion price of the Tranche I Notes and Tranche II Notes was further adjusted to $1.14 per share.

As of June 30, 2016 and December 31, 2015, the related party convertible notes outstanding under the Tranche I Notes and Tranche II Notes were $24.5 million and $23.3 million, respectively, net of debt discount of $0.0 million and $0.0 million, respectively. Refer to the “Exchange” and “Maturity Treatment Agreement” sections of this Note 5, "Debt", for details of the impact of the Maturity Treatment and Exchange agreements on the Tranche I and II Notes.

2014 144A Notes Sold to Related Parties

As of June 30, 2016 and December 31, 2015, the related party convertible notes outstanding under the 2014 Rule 144A Convertible Note Offering were $14.8 million and $14.6 million, respectively, net of discount and issuance costs of $1.6 million and $1.6 million, respectively.

As of June 30, 2016 and December 31, 2015, the total related party convertible notes outstanding were $42.8 million and $42.8 million, respectively, net of discount and issuance costs of $1.7 million and $1.9 million, respectively.

Loans Payable

In July 2012, the Company entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods Agreement (together, the "July 2012 Bank Agreements") with each of Nossa Caixa Desenvolvimento (or “Nossa Caixa”) and Banco Pine S.A. (or “Banco Pine”). Under the July 2012 Bank Agreements, the Company pledged certain farnesene production assets as collateral for the loans of R$52.0 million. The Company's total acquisition cost for such pledged assets was approximately R$68.0 million (approximately US$21.2 million based on the exchange rate as of June 30, 2016). The Company is also a parent guarantor for the payment of the outstanding balance under these loan agreements. Under the July 2012 Bank Agreements, the Company could borrow an aggregate of R$52.0 million (approximately US$16.2 million based on the exchange rate as of June 30, 2016) as financing for capital expenditures relating to the Company's manufacturing facility located in Brotas, Brazil. Specifically, Banco Pine, agreed to lend R$22.0 million and Nossa Caixa agreed to lend R$30.0 million. The funds for the loans are provided by BNDES, but are guaranteed by the lenders. The loans have a final maturity date of July 15,