

ZION OIL & GAS INC
Form 10-K
March 14, 2017

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

MARK ONE:

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

For the Fiscal Year ended December 31, 2016

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

Commission file number: 001-33228

ZION OIL & GAS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other Jurisdiction of
Incorporation or Organization)

20-0065053

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

12655 N Central Expressway, Suite 1000, Dallas, TX 75243
(Address of Principal Executive Offices) (Zip Code)

(214) 221-4610

(Registrant's telephone number, including area code)

Securities registered under Section 12 (b) of the Exchange Act:

Common Stock, par value \$0.01 per share NASDAQ Global Market

(Title of Class)

(Name of each exchange on which registered)

Securities registered under Section 12 (g) of the Exchange Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

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

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

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

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

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

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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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2016, was approximately \$53.5 million. This amount is based on the closing price of registrant's common stock on the NASDAQ Global Market on that date.

The registrant had 45,466,257 shares of common stock, par value \$0.01, outstanding as of February 28, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

The Registrant intends to file a definitive proxy statement pursuant to Regulation 14A in connection with its 2017 Annual Meeting of Stockholders within 120 days after the close of the fiscal year covered by this Form 10-K. Portions of such proxy statement are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III of this report.

2016 ANNUAL REPORT (SEC FORM 10-K)

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**Securities and Exchange Commission
Item Number and Description**

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FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K (herein, “Annual Report”) and the documents included or incorporated by reference in this Annual Report contain statements concerning our expectations, beliefs, plans, objectives, goals, strategies, future events or performance and underlying assumptions and other statements that are not historical facts. These statements are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. You generally can identify our forward-looking statements by the words “anticipate,” “believe,” “budgeted,” “continue,” “could,” “estimate,” “expect,” “forecast,” “goal,” “intend,” “may,” “objective,” “plan,” “potential,” “predict,” “projection,” “so,” “will” or other similar words. These forward-looking statements include, among others, statements regarding:

Our ability to raise sufficient capital to fund the drilling of our planned exploratory well, the Megiddo-Jezreel #1 well;

the going concern qualification in our financial statements;

our ability to explore for and develop natural gas and oil resources successfully and economically within our license areas;

our liquidity and our ability to raise capital to finance the drilling of our next exploratory well and our overall exploration and development activities;

our ability to maintain the exploration license rights to continue our petroleum exploration program;

the availability of equipment, such as seismic trucks, drilling rigs, and transportation pipelines;

the impact of governmental regulations, permitting and other legal requirements in Israel relating to onshore exploratory drilling;

our estimates of the time frame within which the drilling of our exploratory well and the exploratory activities will be undertaken;

changes in our drilling plans and related budgets;

the quality of existing and future license areas with regard to, among other things, the existence of reserves in economic quantities;

anticipated trends in our business;

our future results of operations;

our capital expenditure program;

future market conditions in the oil and gas industry; and

the demand for oil and natural gas, both locally in Israel and globally.

More specifically, our forward-looking statements include, among others, statements relating to our schedule, business plan, targets, estimates or results of our applications for new exploration rights and future drilling, including the number, timing and results of wells, the timing and risk involved in drilling follow-up wells, planned expenditures, prospects budgeted and other future capital expenditures, risk profile of oil and gas exploration, acquisition of seismic data (including number, timing and size of projects), planned evaluation of prospects, probability of prospects having oil and natural gas, expected production or reserves, acreage, working capital requirements, hedging activities, the ability of expected sources of liquidity to implement our business strategy, future hiring, future exploration activity, production rates, all and any other statements regarding future operations, financial results, business plans and cash needs and other statements that are not historical fact.

Such statements involve risks and uncertainties, including, but not limited to, those relating to the uncertainties inherent in exploratory drilling activities, the volatility of oil and natural gas prices, operating risks of oil and natural gas operations, our dependence on our key personnel, factors that affect our ability to manage our growth and achieve our business strategy, risks relating to our limited operating history, technological changes, our significant capital requirements, the potential impact of government regulations, adverse regulatory determinations, litigation, competition, the uncertainty of reserve information and future net revenue estimates, property acquisition risks, industry partner issues, availability of equipment, weather and other factors detailed herein and in our other filings with the Securities and Exchange Commission (the “SEC”).

We have based our forward-looking statements on our management’s beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that assumptions, beliefs, expectations, intentions and projections about future events may and often do vary materially from actual results. Therefore, we cannot assure you that actual results will not differ materially from those expressed or implied by our forward-looking statements.

Some of the factors that could cause actual results to differ from those expressed or implied in forward-looking statements are described under “Risk Factors” in this Annual Report and in our other periodic reports filed with the SEC. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those indicated. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by reference to these risks and uncertainties. You should not place undue reliance on our forward-looking statements. Each forward-looking statement speaks only as of the date of the particular statement, and we undertake no duty to update any forward-looking statement.

PART I

ITEM 1. BUSINESS

Overview

Zion Oil and Gas, Inc., a Delaware corporation, is an oil and gas exploration company with a history of 17 years of oil and gas exploration in Israel. We were incorporated in Florida on April 6, 2000 and reincorporated in Delaware on July 9, 2003. We completed our initial public offering in January 2007. Our common stock, par value \$0.01 per share (the “Common Stock”) currently trades on the NASDAQ Global Market under the symbol “ZN” and our Common Stock warrant under the symbol “ZNWAA.”

Zion currently holds one active petroleum exploration license onshore Israel, the Megiddo-Jezreel License (“MJL”), comprising approximately 99,000 acres. The Company has selected and constructed the specific drill pad location from which to drill its next exploration well, which it plans to spud within the second quarter of 2017. The drilling of this well to the desired depth is subject to the Company raising sufficient funds from the current unit offering (scheduled to terminate on March 31, 2017) and possible additional capital raising efforts.

Depending on the results of the planned exploratory well and having adequate cash resources, multiple wells could be drilled from this pad site as several subsurface geologic targets can be reached using directional well trajectories.

At present, we have no revenues or operating income. Our ability to generate future revenues and operating cash flow will depend on the successful exploration and exploitation of our current and any future petroleum rights or the acquisition of oil and/or gas producing properties, and the volume and timing of such production. In addition, even if we are successful in producing oil and gas in commercial quantities, our results will depend upon commodity prices for oil and gas, as well as operating expenses including taxes and royalties.

Our executive offices are located at 12655 North Central Expressway, Suite 1000, Dallas, Texas 75243, and our telephone number is (214) 221-4610. Our branch office’s address in Israel is 9 Halamish Street, North Industrial Park, Caesarea 3088900, and the telephone number is +972-4-623-8500. Our website address is: www.zionoil.com.

Company Background

In 1983, during a visit to Israel, John M. Brown (our Founder and Chairman of the Board of Directors) became inspired and dedicated to finding oil and gas in Israel. During the next 17 years he made several trips each year to Israel, hired oil and gas consultants in Israel and Texas, met with Israeli government officials, made direct investments with local exploration companies, and assisted Israeli exploration companies in raising money for oil and gas exploration in Israel. This activity led Mr. Brown to form Zion Oil & Gas, Inc. in April 2000, in order to receive the award of a small onshore petroleum license from the Israeli government.

Zion's vision, as guided by John Brown, of finding oil and/or natural gas in Israel, is biblically inspired. The vision is based, in part, on biblical references alluding to the presence of oil and/or natural gas in territories within the State of Israel that were formerly within certain ancient biblical tribal areas. While John Brown provides the broad vision and goals for our company, the actions taken by the Zion Board of Directors and management team as it actively explores for oil and gas in Israel, are based on modern science and good business practice. Zion's oil and gas exploration activities are supported by appropriate geological, geophysical and other science-based studies and surveys typically carried out by companies engaged in oil and gas exploration activities.

Upon the award of our first petroleum right in May 2000, the Israeli government provided us access to most of its data with respect to previous exploration in the area, including geologic reports, seismic records and profiles, drilling reports, well files, gravity surveys, geochemical surveys and regional maps. We also gathered information concerning prior and ongoing geological, geophysical and drilling activity relevant to our planned activities from a variety of publicly accessible sources. Subsequently, we have acquired additional studies on our own such as seismic and other geophysical and geological surveys.

To date, the Company has drilled four exploratory wells. While the presence of hydrocarbons was indicated while drilling certain of these wells, none of the exploratory wells that we have drilled to date have been deemed capable of producing oil or gas in commercial quantities.

ZION'S CURRENT EXPLORATION LICENSE AREA

Zion currently holds one active petroleum exploration license onshore Israel, the Megiddo-Jezreel License (covering an area of approximately 99,000 acres – See Map 1). Under Israeli law, Zion has an exclusive right to oil and gas exploration in our license area in that no other company may drill there. In the event we drill an oil or gas discovery in our license area, current Israeli law entitles us to convert the relevant portions of our license to a 30-year production lease, extendable to 50 years, subject to compliance with a field development work program and production.

Map 1. Zion's Megiddo-Jezreel Petroleum Exploration License as of December, 2016.

Summary of Current and Former Company License Areas

Megiddo-Jezreel Petroleum License

The Megiddo-Jezreel License (“MJL”) was awarded on December 3, 2013 for a three-year primary term through December 2, 2016, with the possibility of additional one-year extensions up to a maximum of seven years. The MJL (~99,000 acres) is onshore, south and west of the Sea of Galilee.

Under the original license terms, Zion had until July 1, 2015 to identify and submit a drilling prospect. The license terms also called for the Company to enter into a drilling contract by October 1, 2015 and begin drilling or “spud” a well by December 1, 2015. Zion has applied for, and been awarded several extensions/revisions of the original MJL terms, the most recent of which are outlined below.

On June 28, 2016, the Company submitted a third Application for Extension of Drilling Date, and on July 4, 2016, the Petroleum Commissioner formally approved the application as follows:

No.	Activity Description	To be carried out by:
1	Sign a contract with drilling contractor and forward to Petroleum Commissioner	13 October 2016
2	Submit detailed Engineering Plan to carry out the drilling	13 October 2016
3	Spudding in the license area	1 December 2016
4	Submit a final report on the results of the drilling	1 May 2017
5	Submit a plan for continued work in the license area	29 June 2017

The Company timely complied with two key special conditions of our existing license terms established by Israel’s Petroleum Commissioner, by providing on October 13, 2016 the fully executed drilling contract with S.A. Daflog, S.R.L. (dated 6 October 2016) and a detailed Drilling Engineering Plan for the Megiddo-Jezreel #1 well.

Zion entered into a drilling contract with S.A. DAFLOG S.R.L., an Israeli-registered related party entity to DAFORA S.A. DAFORA is the largest drilling company in Romania and has drilled over 1,000 wells in Romania, Eastern Europe and East Africa. Zion will use DAFORA’s F-400 drilling rig which has a 3,000 HP capacity drawworks capable of drilling to over 7,000 meters (approximately 23,000 feet). This provides sufficient horsepower and safety factor to drill our planned well with a target depth of up to 4,500 meters (approximately 15,000 feet). The DAFORA rig and most of its major components are currently stored in Israel, at Givot Olam’s Meged-8 drill site.

As previously reported, the Company needed authorization from the Israel Land Authority (the “ILA”), the formal lessor of the land to the kibbutz, to access and utilize the drill site. On August 16, 2016, the Company signed the agreement with the ILA to access and utilize the drill site. This is in conjunction with our May 15, 2016, signed agreement with Kibbutz Sde Eliyahu on whose property the drilling pad will be situated.

The drill site plan was prepared by an outside engineering firm to accommodate DAFORA’s F-400 Rig. Zion awarded the drill site construction contract to an Israeli company named *Y. Bazelet and Aggregatim LTD*. The final step in the process is for Zion to submit our Application for Permit to Drill for final drilling permit approval. Drill site construction started in late December 2016, and was completed in February, 2017. Upon completion of the access road and drill site, we plan to commence rig mobilization to the MJ#1 location to begin rig-up and acceptance testing, assuming no weather or regulatory delays. The drilling, completion and testing of the well will be subject to raising the necessary capital of which no assurances can be provided. As of the date of this report, the Company has cash resources to spud the well but does not yet have the cash resources to drill the MJ #1 well to the planned total depth of 4,500 meters (approximately 15,000 feet).

While Zion has successfully complied with the Special Conditions of the Company's work program to date, the process of securing an appropriate drilling rig and crew with which to drill our upcoming well was long and complicated. As such, Zion submitted a drilling date extension request to the Petroleum Commissioner on November 7, 2016. Key details of the extension request are outlined below:

NO.	ACTIVITY DESCRIPTION	TO BE CARRIED OUT BY:
1	Begin drilling / spud well	30 June 2017
2	Submit final report on the results of drilling	1 November 2017
3	Submit a plan for continued work in the license area	1 December 2017

On November 29, 2016, the Company received notification from the State of Israel's Petroleum Commissioner officially approving the Company's drilling date extension.

Zion's Former Jordan Valley, Asher-Menashe and Joseph Licenses

On March 29, 2015, the Energy Ministry formally approved the Company's application to merge the southernmost portion of the Jordan Valley License into the Megiddo-Jezreel License. The Company has plugged all of its exploratory wells (in the former Joseph and Asher-Menashe License areas) but acknowledges its obligation to complete the abandonment of these well sites in accordance with guidance from the Environmental Ministry and local officials.

Exploration Plans Going Forward

We continue our exploration focus on our Megiddo-Jezreel License area as that area appears to possess the key geologic ingredients of an active petroleum system. We have selected the specific drill pad location from which to drill our next exploration well, the Megiddo-Jezreel #1 well ("MJ#1"), which we plan to spud in the first half of 2017.

The drill site and access road construction which started in late December 2016 was completed. We plan to commence rig mobilization to the MJ #1 location to begin rig-up and acceptance testing, assuming no weather or regulatory delays.

In September 2015, Zion engaged Forrest Garb & Associates ("FGA"), an international petroleum engineering and geoscience consulting firm and an independent third party, to provide a resource assessment report, as required under

the terms of Zion's current petroleum exploration license. FGA prepared its Resource Assessment Report of Gross Prospective Resources ("Garb Report")) which relates to Zion's Beit Shean Prospect for the proposed drilling of the MJ #1 well. This independent analysis affirms Zion's internal interpretation of four separate objectives (Mid-Cretaceous, Upper Jurassic, Mid-Jurassic and Triassic) and discloses potential resource estimates.

FGA's estimates of prospective resource volumes used probabilistic analysis methods in accordance with the Petroleum Resources Management System (PRMS) as endorsed by the Society of Petroleum Engineers, the American Association of Petroleum Geologists, the World Petroleum Council, and the Society of Petroleum Evaluation Engineers. The classification system and definitions are in common use internationally within the petroleum industry. They provide a measure of comparability and reduce the subjective nature of resource estimation. This analysis provides a consistent approach to estimating petroleum quantities, evaluating development projects, and presenting results within a comprehensive classification framework. The Garb Report is attached as an exhibit to this annual report on Form 10-K.

It should be noted that "Contingent Resources" and "Prospective Resources" used in the Garb Report do not represent an estimate of reserves. Readers are cautioned that under applicable SEC rules, the disclosure of estimates of oil or gas resources other than reserves, and any estimated values of such resources, is not permitted to be disclosed in any document publicly filed with the SEC.

Exploration Expenditures

The following table summarizes the amounts we expended on our exploration efforts during 2016 and 2015:

	2016	2015
	US\$	US\$
	(000)	(000)
Megiddo-Jezreel Valley License		
Geological & Geophysical Operations	1,020	725
Equipment purchasing	325	443
Location construction	89	--
Asher-Menashe License (expired on June 9, 2014)		
Geological & Geophysical Operations	--	15
Plug & Abandonment Operations	2	178
Joseph License (expired on October 10, 2013)		
Plug & Abandonment Operations	2	77
Total	1,438	1,438

Employees & Contractors

As of December 31, 2016, we had 23 employees and contractors of whom all but three are on a full-time basis. Included in this number are certain contractors who provide services to the Company on an ongoing basis. Of the 23 total headcount, 14 work out of our Dallas office and 9 work out of the Caesarea, Israel office. None of our current employees or contractors are subject to any collective bargaining agreements, and there have been no strikes.

We regularly utilize independent consultants and contractors to perform various professional services, particularly for services connected to drilling operations, such as specialized drilling, health and safety, engineering, logging, cementing and well-testing.

Competition and Markets

The oil and gas exploration industry in Israel currently consists of a number of exploration companies. These include relatively small local or foreign companies (such as Zion Oil & Gas, Genie Oil & Gas/Afek, and Givot Olam), as well as larger consortia of local Israeli and foreign participants (Noble Energy Inc./Delek Group Ltd.). Most groups are engaged primarily in offshore activities, which is not an area in which we are currently active. So long as we hold our current license, Israeli law conveys an exclusive exploration right to Zion such that no additional companies may compete in our license area.

Historically, primarily for geopolitical reasons, Israel (particularly onshore) has not been an area of interest for international integrated or large or mid-size independent oil and gas exploration companies. Since the announcement of the Tamar and Leviathan discoveries, this situation has changed somewhat. Limited availability in Israel of oil field service companies, equipment and personnel continues to present obstacles, especially during periods of decreased activity and risk aversion in the current market. We attempt to enhance our position by developing and maintaining good professional relations with oil field service providers and by demonstrating a high level of credibility in making and meeting commercial commitments.

The oil and gas industry is cyclical, and from time to time there is a shortage of drilling rigs, equipment, supplies and qualified personnel. During these periods, the costs and delivery times of rigs, equipment and supplies can vary greatly. If the unavailability or high cost of drilling rigs, equipment, supplies or qualified personnel were particularly severe in the areas where we operate, we could be materially and adversely affected. We will continue to monitor the market and build service provider relationships in order to help mitigate concentration risk.

If any of our exploratory wells are commercially productive, we would install the appropriate production equipment which includes, among other items, oil and gas separation facilities and storage tanks. Under the terms of the Petroleum Law, we may be required by the Minister of Energy and Water Resources to offer first refusal for any oil and gas discovered to Israeli domestic purchasers at market prices.

Since Israel imports almost all of its crude oil needs and the market for crude oil in Israel is limited to two local oil refineries, no special marketing strategy needs to be adopted initially with regard to any oil that we may ultimately discover. We believe that we would have a ready local market for our oil at market prices in addition to having the option of exporting to the international market, if any of our future exploratory wells are commercially productive.

Israel's Petroleum Law

Our business in Israel is subject to regulation by the State of Israel under the Petroleum Law. The administration and implementation of the Petroleum Law are vested in the Minister of Infrastructures, Energy and Water Resources ("Energy Minister"), the Petroleum Commissioner and an advisory council. The following discussion includes a brief summary review of certain provisions of the Petroleum Law as currently in effect. This review is not complete, and it should not be relied on as a definitive restatement of the law related to petroleum exploration and production activities in Israel.

Petroleum resources are owned by the State of Israel, regardless of whether they are located on state lands or the offshore continental shelf. No person is allowed to explore for or produce petroleum without being granted a specific right under the Petroleum Law.

License. The "license" is a petroleum exploration right, bestowing an exclusive right for further exploration work and requiring the drilling of one or more test wells. The initial term of a license is up to three years, and it may be extended for up to an additional four years (in one year increments). A license area may not exceed 400,000 dunams (approximately 98,842 acres). One dunam is equal to 1,000 square meters (approximately 0.24711 of an acre). No one entity may hold more than 12 licenses or hold more than a total of four million dunam in aggregate license area.

Production lease. Upon discovery of petroleum in commercial quantities, a licensee has a statutory "right" to receive a production "lease." The initial lease term is 30 years, extendable for an additional 20 years (up to a maximum period of 50 years). A lease confers upon the lessee the exclusive right to explore for and produce petroleum in the lease area and requires the lessee to produce petroleum in commercial quantities (or pursue test or development drilling). The lessee is entitled to transport and market the petroleum produced, subject, however, to the right of the government to require the lessee to supply local needs first, at market price.

Petroleum rights fees. The holders of licenses and leases are required to pay fees to the government of Israel to maintain the rights. The fees vary according to the nature of the right, the size and location (onshore or offshore) of the right, acreage subject to the right and, in the case of a license, the period during which the license has been maintained. Every subsequent year, the license fee increases incrementally.

Requirements and entitlements of holders of petroleum rights. The holder of a petroleum right (license or lease) is required to conduct its operations in accordance with a work program set as part of the petroleum right, with due diligence and in accordance with the accepted practice in the petroleum industry. The holder is required to submit progress and final reports; provided, however, the information disclosed in such reports remains confidential for as long as the holder owns a petroleum right on the area concerned.

If the holder of a petroleum right does not comply with the work program provided by the terms of the right, the Petroleum Commissioner may issue a notice requiring that the holder cure the default within 60 days of the giving of the notice, together with a warning that failure to comply within the 60-day cure period may entail cancellation of the right. If the petroleum right is cancelled following such notice, the holder of the right may, within 30 days of the date of notice of the Commissioner's decision, appeal such cancellation to the Energy Minister. No petroleum right shall be cancelled until the Energy Minister has ruled on the appeal.

We are obligated, according to the Petroleum Law, to pay royalties to the Government of Israel on the gross production of oil and gas from the oil and gas properties of Zion located in Israel (excluding those reserves serving to operate the wells and related equipment and facilities). The royalty rate stated in the Petroleum Law is 12.5% of the produced reserves. At December 31, 2016 and 2015, the Company did not have any outstanding obligation with respect to royalty payments, since it is in the development stage and, to this date, no proved reserves have been found.

In March 2011, the Israeli parliament enacted the Petroleum Profits Taxation Law, 2011, which imposes a new levy on oil and gas production. Under the new tax regime, the Israeli Government repealed the percentage depletion deduction and imposed a levy at an initial rate of 20% on profits from oil and gas which will gradually rise to 45.52% for 2016 onwards, depending on the levy coefficient (the R-Factor). The R-Factor refers to the percentage of the amount invested in the exploration, the development and the establishment of the project, so that the 20% rate will be imposed only after a recovery of 150% of the amount invested (R-Factor of 1.5) and will range linearly up to 45.52% after a recovery of 230% of the amount invested (R-Factor of 2.3). For purposes of the levy rate calculation, the minimal gas sale price that will be accepted by the State is the bi-annual average local price. The present 12.5% royalty imposed on oil revenues remains unchanged.

The grant of a petroleum right does not automatically entitle its holder to enter upon the land to which the right applies or to carry out exploration and production work thereon. Entry requires the consent of the private or public holders of the surface rights and of other public regulatory bodies (e.g. planning and building authorities, Nature Reserves Authority, municipal and security authorities, etc.). The holder of a petroleum right may request the government to acquire, on its behalf, land needed for petroleum purposes. The petroleum right holder is required to obtain all other necessary approvals.

Petroleum Taxation. Our activities in Israel will be subject to taxation both in Israel and in the United States. Under the U.S. Internal Revenue Code, we will be entitled to claim either a deduction or a foreign tax credit with respect to Israeli income taxes paid or incurred on our Israeli source oil and gas income. As a general rule, we anticipate that it will be more advantageous for us to claim a credit rather than a deduction for applicable Israeli income taxes on our U.S tax return. A tax treaty exists between the U.S. and Israel that would provide opportunity to use the tax credit.

Exploration and development expenses. Under current US and Israeli tax laws, exploration and development expenses incurred by a holder of a petroleum right can, at the option of such holder, either be expensed in the year incurred or capitalized and expensed (or amortized) over a period of years. Most of our expenses to date have been expensed for both U.S. and Israeli income tax purposes.

Depletion allowances. Until 2011, the holder of an interest in a petroleum license or lease was allowed a deduction for income tax purposes on account of the depletion of the petroleum reserve relating to such interest. This may have been by way of percentage depletion or cost depletion, whichever is greater. In 2010, the Finance Minister of Israel established an advisory committee to study the country's fiscal policy as it relates to the upstream oil and natural gas sector, as well as various options, including an increase in royalties or cancellation of tax incentives. In January 2011, the Finance Ministry advisory committee issued its final recommendations which included cancellation of currently existing tax incentives, including the depletion allowance. In 2011, the depletion allowance was abolished.

Corporate tax. Under current Israeli tax laws, whether a company is registered in Israel or is a foreign company operating in Israel through a branch, it is subject to Israeli Companies Tax on its taxable income (including capital

gains) from Israeli sources at a flat rate of 25%, effective January 1, 2016.

Import duties. Insofar as similar items are not available in Israel, the Petroleum Law provides that the owner of a petroleum right may import into Israel, free of most customs, purchase taxes and other import duties, all machinery, equipment, installations, fuel, structures, transport facilities, etc. (apart from consumer goods and private cars and similar vehicles) that are required for the petroleum exploration and production purposes, subject to the requirement that security be provided to ensure that the equipment is exported out of Israel within the agreed upon time frame.

Israeli Energy Related Regulations

Our operations are subject to legal and regulatory oversight by energy-related ministries or other agencies of Israel, each having jurisdiction over certain relevant energy or hydrocarbons laws.

The Onshore Petroleum Exploration Permitting Process in Israel

The permitting process in Israel with respect to petroleum exploration continues to undergo significant modification, the result of which is to considerably increase the complexity, time period, and expenditures needed to obtain the necessary permits to undertake exploratory drilling once a drilling prospect has been identified. Applications for new exploration licenses need to comply with more demanding requirements relating to a license applicant's financial capability, experience and access to experienced personnel. Various guidelines have been published in Israel by the State of Israel's Petroleum Commissioner and Energy and Environmental Ministries since 2012 as it pertains to oil and gas activities. Mention of these guidelines was included in previous Zion Oil & Gas filings.

On January 11, 2015, the Energy Ministry issued revised guidelines (initially issued in February 2012) for onshore wellbore abandonment that are based on US regulations on well abandonment found in 43 CFR, Section 3162.3-4; applicable Texas Railroad Commission guidelines; and Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations found in API Bulletin E3. This guideline is effective April 1, 2015.

On February 12, 2015, the Energy Ministry issued guidance for preparation and submission of the drilling program (first presented on April 29, 2014), describing types and purposes of production tests depending on the stage of development of a reservoir. This guideline is effective April 1, 2015.

On April 27, 2015, the Energy Ministry issued guidelines for well testing, establishing procedures and minimum requirements for pressure testing, production flow testing, fluid analyses testing, etc.

On August 13, 2015, the Energy Ministry issued a new guideline for hydraulic fracturing design and operations that is based on Canadian regulations per Directive 083. This guideline is effective November 21, 2015. The procedures seek to prevent impacts on water wells, non-saline aquifers and prevent surface impacts.

On September 9, 2015, the Energy Ministry issued information relating to application forms for exploration drilling, detailing certain operator requirements prior to drilling, including required submission of an Application for Permit to Drill (APD) and Supplemental APD Information Sheet - Casing Design, both due 30 days prior to commencement of work. An Application for Permit to Modify (APM) form is now provided relating to changes to and modifications of already-approved drilling programs and other actions that were omitted from the original application such as production testing, abandonment, etc. An End of Operation Report (EOR) form is also provided to report the end of drilling or a temporary or a final end of operations.

On December 31, 2015, the Energy Ministry issued a new guidance for wellsite design and spacing for onshore and offshore sites. The guidelines relate to the necessary safety distance between installations and equipment at the drill site, flare pit and flare design and design of the drill site.

On December 31, 2015, the Energy Ministry issued revised guidance for “Transfer or Lien of Oil Rights” under section 76 of the Petroleum Law. The guidelines apply to a transfer of petroleum and related rights, license and production lease as well as rights to profit and royalties. The guidelines specify transfer of control in a corporation and the necessary procedure to apply for and receive approval from the Petroleum Commissioner for transfer of petroleum rights.

On May 16, 2016, the Energy Ministry issued new guidelines for the preparation and submission of a drilling program in accordance with industry best practices or “Good Oilfield Practice.”

On May 17, 2016, the Energy Ministry issued new guidelines for production testing in accordance with “Good Industry Practice” detailing the applicable measures and reporting requirements.

We believe that these new regulations will significantly increase the expenditures associated with obtaining new exploration rights and drilling new wells, coupled with the heavy financial burden of “locking away” significant amounts of cash that could otherwise be used for operational purposes. Finally, this will also considerably increase the time needed to obtain all of the necessary authorizations and approvals prior to drilling.

Environmental & Safety / Planning & Building

Oil and gas drilling operations could potentially harm the environment if there are polluting spills caused by the loss of well control. The Petroleum Law and regulations provide that the conduct of petroleum exploration and drilling operations be pursued in compliance with “good oil field practices” and that measures of due care be taken to avoid

seepage of oil, gas and well fluids into the ground and from one geologic formation to another. The Petroleum Law and regulations also require that, upon the abandonment of a well, it be adequately plugged and marked. Recently, as a condition for issuing the required permit for the construction of a drilling site, the planning commissions have required the submission of a site remediation plan, subject to approval of the environmental authorities. Our operations are also subject to claims for personal injury and property damage caused by the release of chemicals or petroleum substances by us or others in connection with the conduct of petroleum operations on our behalf. Various guidelines have been published in Israel by the State of Israel's Petroleum Commissioner and Energy and Environmental Ministries since 2012 as it pertains to oil and gas activities. Mention of these guidelines was included in previous Zion Oil & Gas filings.

Regulations entitled "The Petroleum Regulations (Authorization to Deviate from the Provisions of the Planning and Building Law) 5772-2012" were adopted on April 24, 2012 and detail a new permitting process which, among other things, require the submission to the local regulatory and permitting authorities, of a detailed environmental report relating to the proposed drilling site and surroundings. The report is to address, in detail, the environmental implications of the drilling, including hydrological analysis, surface water management, risk assessment, environmental impact, and abandonment and remediation of the drill site, among others.

The drilling application must be published, and there are specified time frames (approximately 100 days) for any person (including environmental and other interested bodies) to comment on the drilling application. As a result, we believe that the time periods to obtain the necessary permits (prior to spudding a well) have been considerably increased.

On January 2015, new guidelines were published regarding the abandonment of onshore (land-based) wells, as stated in Article 21 of Israel's Petroleum Regulations 5713 -1521. The guidelines are at least partially based on certain U.S. regulations, including Texas Railroad Commission regulations required in Texas. The guidelines include, among other matters, standards for plugging wells, temporary and permanent abandonment, reclamation, restoration, etc.

On January 21, 2016, the Environmental Ministry published Professional Guidelines and Standards for Remediation of Land. The guidelines clarify and define what is considered polluted land, remediation and the permitted methods to remediate polluted land, and it applies to oil and gas exploration companies including Zion.

On June 28, 2016, the Energy Ministry issued new guidelines for occupational health and safety practices regarding oil and gas drilling and production activities per international norms, coupled with Israeli legal safety guidelines. These regulations focus on industry best practices in the area of health, safety, and environmental (HS&E) factors as well as risk management. In addition, there is a new requirement to have the Petroleum Commissioner's approval over the safety standards which the operator seeks to apply.

We do not know and cannot predict whether any new legislation in this area will be enacted and, if so, in what form and which of its provisions, if any, will relate to and affect our activities, how and to what extent or what impact, if any, it might have on our financial statements. There are no known proceedings instituted by governmental authorities, pending or known to be contemplated against us under any environmental laws. We are not aware of any events of noncompliance in our operations in connection with any environmental laws or regulations. However, we cannot predict whether any new or amended environmental laws or regulations introduced in the future will have a material adverse effect on our future business.

The Company believes that these new and/or revised regulations will significantly increase the complexity, time, and expenditures associated with obtaining new exploration rights, drilling, and plugging/abandoning new wells, coupled with the heavy financial burden of "locking away" significant amounts of cash that could otherwise be used for operational purposes.

Proposed Fuel Market Law Legislation

In March 2012, the Energy Ministry presented a draft law entitled "Fuel Market Law." Under the proposal as currently drafted, the following activities among others as they relate to crude oil and its products would require licenses by the Director of the Fuel Authority in the Energy Ministry: import, export, refining, storage, dispensing and loading, transport, marketing and sale. Further under the proposal a condition for the receipt of a license is that the licensee be a corporation incorporated under the Israeli Companies Law. As currently drafted, the proposal does not provide for exceptions for entities holding petroleum rights under the Petroleum Law; however, it is not certain that, even if enacted as currently proposed, the provisions of the proposed law would supersede the provisions of the Petroleum Law. We submitted comments to the Ministry with the aim of clarifying that any law to be presented for enactment clarify that the rights of holders of licenses and leases granted under the Petroleum Law will not be compromised. In July of 2012 the Israeli Parliament approved at the first hearing the draft Fuel Market Law.

We do not know and cannot predict the results of any attempt to enact the proposed Fuel Market Law, as currently drafted or as may be amended or, if enacted, the effect of such law on our rights under the Petroleum Law or the results of any legal challenge to the law by a holder of a license or lease issued under the Petroleum Law.

Political Climate

We are directly influenced by the political, economic and military conditions affecting Israel. Specifically, we could be adversely affected by:

any major hostilities involving Israel;

the interruption or curtailment of trade between Israel and its present trading partners;

a full or partial mobilization of the reserve forces of the Israeli army; and

a significant downturn in the economic or financial condition of Israel.

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, and a state of hostility, varying from time to time in intensity and degree, has led to security and economic problems for Israel. Any ongoing or future violence between Israel and the Palestinians, armed conflicts, terrorist activities, tension along Israel's borders, or political instability in the region could possibly disrupt international trading activities in Israel and may materially and negatively affect our business conditions and could harm our prospects and business.

Civil unrest could spread throughout the region or grow in intensity, leading to more regime changes resulting in governments that are hostile to the United States and Israel, civil wars, or regional conflict. More recently, Russia initiated significant and direct military intervention in Syria consisting of air strikes against ISIS and other parties. With ongoing operations by Russia, the U.S. and other countries in areas in close proximity to Israel, there is an increased risk of deliberate and/or inadvertent mishaps that could give rise to grave military and political consequences.

We cannot predict the effect, if any, on our business of renewed hostilities between Israel and its neighbors or any other changes in the political climate in the area.

Foundations

If we are successful in finding commercial quantities of hydrocarbons in Israel, 6% of our gross revenues from production will go to fund two charitable foundations that we established with the purpose of donating to charities in Israel, the U.S. and elsewhere in the world.

For charitable activities concerning Israel, the Bnei Joseph Foundation (R.A.) was established. On November 11, 2008, both the Articles of Association and Incorporation Certificate were certified by the Registrar of Amutot (i.e. Charitable Foundations) in Israel.

For the U.S. and worldwide charitable activities, the Abraham Foundation in Geneva, Switzerland was established. On June 20, 2008, the Articles of Incorporation were executed and filed by the Swiss Notary in the Commercial Registrar in Geneva. On June 23, 2008, the initial organizational meeting of the founding members was convened in Israel. Regulations for the Organization of the Abraham Foundation, signed by the founding members, were then filed with the Registrar. On November 19, 2008, the Swiss Confederation approved the Foundation as an international foundation under the supervision of the federal government. On December 8, 2008, the Republic of Geneva and the Federal government of Switzerland issued a tax ruling providing complete tax exemption for the Foundation.

Our shareholders, in a resolution passed at the 2002 Annual Meeting, gave authority to the Zion Board of Directors to transfer a 3% overriding royalty interest to each of the two foundations with regard to the Joseph and Asher-Menashe licenses. In accordance with that resolution, we took steps to legally donate a 3% overriding royalty interest to the Bnei Joseph Foundation (in Israel) and a 3% overriding royalty interest to the Abraham Foundation (in Switzerland).

On June 22, 2009, we received an official letter from the Commissioner informing us that the 3% overriding royalty interest to each of the Bnei Joseph Foundation and the Abraham Foundation had been registered in the Israeli Oil Register with regard to the Joseph and Asher-Menashe licenses. On November 9, 2011, we received an official letter from the Commissioner informing us that the 3% overriding royalty interest to each of the Bnei Joseph Foundation and the Abraham Foundation had been registered in the Israeli Oil Register with regard to the Jordan Valley License.

On February 5, 2014, the Company submitted applications to the Petroleum Commissioner, requesting royalty interest transfers from the Megiddo-Jezreel License of 3% overriding royalties to the Bnei Joseph Amutot and the Abraham Foundation, respectively. On April 8, 2014, the transfers were approved by the Petroleum Commissioner and duly registered.

Available Information

Zion's internet website address is "www.zionoil.com." We make available, free of charge, on our website, and on our Zion mobile application, under "SEC Reports," our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4 and 5 filed on behalf of directors and executive officers and amendments to those reports, as soon as reasonably practicable after providing the SEC such reports.

Our Corporate Governance Policy, the charters of the Audit Committee, the Compensation Committee and the Nominating and Governance Committee, and the Code of Ethics for directors, officers, employees and financial officers are also available on our website under "Corporate Governance" and in print to any stockholder who provides a written request to the Corporate Secretary at Zion Oil & Gas, Inc., 12655 North Central Expressway, Suite 1000, Dallas, Texas 75243, Attn: Corporate Secretary.

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other documents with the SEC under the Securities Exchange Act of 1934, as amended. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an internet website that contains reports, proxy and information statements, and other information regarding issuers, including Zion Oil & Gas, Inc., that file electronically with the SEC. The public can obtain any document we file with the SEC at www.sec.gov. Information contained on or connected to our website is not incorporated by reference into this Form 10-K and should not be considered part of this report or any other filing that we make with the SEC.

ITEM 1A. RISK FACTORS

In evaluating our company, the risk factors described below should be considered carefully. The occurrence of one or more of these events could significantly and adversely affect our business, prospects, financial condition and results of operations.

Risks Associated with our Company

We are a company with no current source of revenue. Our ability to continue in business depends upon our continued ability to obtain significant financing from external sources and the ultimate success of our petroleum exploration efforts in onshore Israel, none of which can be assured.

We were incorporated in April 2000, and we have incurred negative cash flows from our operations, and presently all exploration activities and overhead expenses are financed solely by way of the issue and sale of equity securities or debt instruments. The recoverability of the costs we have incurred to date is uncertain and is dependent upon achieving commercial production or sale, none of which can be assured. Our operations are subject to all of the risks inherent in exploration companies with no revenues or operating income. Our potential for success must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with a new business, especially the oil and gas exploration business, and in particular the deep, wildcat exploratory wells in which we are engaged in Israel. We cannot warrant or provide any assurance that our business objectives will be accomplished.

Our ability to continue in business depends upon our continued ability to obtain the necessary financing from external sources to undertake further exploration and development activities and generate profitable operations from oil and natural gas interests in the future. We incurred net losses of \$8,513,000 for the year ended December 31, 2016 and \$7,306,000 for the year ended December 31, 2015. The audited financial statements have contained a statement by the auditors that raises substantial doubt about us being able to continue as a “going concern” unless we are able to raise additional capital.

We expect to incur substantial expenditures in our exploration and development programs. Our existing cash balances will not be sufficient to satisfy our exploration and development plans going forward, including drilling to the desired depth our planned exploratory well. We are considering various alternatives to remedy any future shortfall in capital. We may deem it necessary to raise capital through equity markets, debt markets or other financing arrangements, including participation arrangements that may be available. We currently have a unit offering continuing through January 31, 2017, which was extended until March 31, 2017. Because of the current absence of any oil and natural gas reserves and revenues in our license areas, there can be no assurance this capital will be

available on commercially acceptable terms (or at all) and if it is not, we may be forced to substantially curtail or cease exploration expenditures which could lead to our inability to meet all of our commitments.

Our financial statements do not reflect the adjustments or reclassifications of assets and liabilities that would be necessary if we are unable to continue as a going concern.

The spudding of our next exploratory well is subject to many contingencies outside of our control, and any considerable delay in obtaining all of the needed licenses, approvals and authorizations prior to actual drilling may severely impair our business.

Even though our drill site is in its final completion stages and our drilling program has been formally approved, there remain several risks and contingencies prior to actually spudding that well. The final step in the regulatory process is for Zion to submit our Application for Permit to Drill to Israel's Energy Ministry for their final approval. While Zion is well along on this regulatory approval process, there is no assurance that we will ultimately be granted such final permission to drill. See the discussion under "Energy Related Regulation — The Onshore Exploration Permitting Process in Israel;" "New Onshore Licensing Guidelines;" and "Israeli Governmental Regulations."

For these reasons, although our next exploratory well is currently planned to spud in the second quarter of 2017, we cannot provide full assurance that we will in fact be able to spud our planned exploratory well in the desired or planned time-frame.

We require significant capital to realize our business plan.

Our planned work program is expensive. We believe that our current cash resources are sufficient to allow us to undertake non-drilling exploratory activities in our current license areas and in the additional areas of interest that we have identified which are currently outside of our exploration license areas and otherwise meet our plans through May 31, 2017. We estimate that, when we are not actively drilling a well, our monthly expenditure is approximately \$500,000 per month. However, when we are engaged in active operations, we estimate that there is an additional cost of approximately \$2,500,000 per month. Additionally, the newly enacted onshore licensing and environmental and safety related regulations promulgated by the various energy related ministries in Israel during 2015-2016 are likely to render obtaining new explorations licenses increasingly expensive. For example, at the time of the award of any new exploration license, we will be required to submit performance bank guarantees in the form of a restricted Israel cash deposits for 10% of the cost of the planned drilling program as well as other amounts to cover potential environmental damages. See "Israel Energy Related Governmental Regulations."

We have no commitments for any financing, and no assurance can be provided that we will be able to raise funds when needed. Further, we cannot assure you that our actual cash requirements will not exceed our estimates. Even if we were to discover hydrocarbons in commercial quantities, we will require additional financing to bring our interests into commercial operation and pay for operating expenses until we achieve a positive cash flow. Additional capital also may be required in the event we incur any significant unanticipated expenses.

Under the current capital and credit market conditions, we may not be able to obtain additional equity or debt financing on acceptable terms. Even if financing is available, it may not be available on terms that are favorable to us or in sufficient amounts to satisfy our requirements.

If we are unable to obtain additional financing, we may be unable to implement our business plan and our growth strategies, respond to changing business or economic conditions and withstand adverse operating results. If we are unable to raise further financing when required, our planned exploration activities may have to be scaled down or even ceased, and our ability to generate revenues in the future would be negatively affected.

Additional financing could cause your relative interest in our assets and potential earnings to be significantly diluted. Even if we have exploration success, we may not be able to generate sufficient revenues to offset the cost of dry holes and general and administrative expenses.

We rely on independent experts and technical or operational service providers over whom we may have limited control.

The success of our oil and gas exploration efforts is dependent upon the efforts of various third parties that we do not control. These third parties provide critical drilling, engineering, logging, pressure pumping, geological, geophysical and other scientific analytical services, including 2-D seismic imaging technology to explore for and develop oil and gas prospects. Given our small size and limited resources, we do not have all the required expertise on staff. As a result, we rely upon various companies and other third parties to assist us in identifying desirable hydrocarbon prospects to acquire and to provide us with technical assistance and services. In addition, we rely upon the owners and operators of drilling rigs and related equipment.

If any of these relationships with third-party service providers are terminated or are unavailable on commercially acceptable terms, we may not be able to execute our business plan. Our limited control over the activities and business practices of these third parties, any inability on our part to maintain satisfactory commercial relationships with them, their limited availability or their failure to provide quality services could materially and adversely affect our business, results of operations and financial condition.

We have historically commenced exploration drilling operations without 3-D seismic surveys, thereby potentially increasing the risk of drilling a non-producing or non-commercial well.

Larger oil and gas exploration companies may choose to conduct extensive analytical pre-drilling testing such as 3-D seismic imaging, the drilling of an expendable “pilot” well or “stratigraphic test” to collect data (logs, cores, fluid samples, pressure data) to determine if drilling a well capable of producing oil or gas (full completion with casing and well testing) is justified. The use of pilot or stratigraphic tests is often used in areas where there is little or no offset well data, like Israel, where our exploration license area is located. While 3-D seismic imaging data is more useful than 2-D data in identifying potential new drilling prospects, its acquisition and processing costs are many multiples greater than that for 2-D data, and the Geophysical Institute of Israel (“GII”), our primary provider of geophysical data, has limited ability to acquire and process onshore 3-D data in Israel. In addition to using 2-D seismic technology prior to drilling, we have historically also utilized gravity and magnetic data, built cross section maps from offset wells and utilized geophysical analysis from similar geologic targets. We believe that the additional months, delays and costs associated with more extensive pre-drilling testing typically undertaken by larger oil and gas exploration companies is not necessarily justified when drilling vertical or near-vertical exploration wells (as we have historically been doing). Nonetheless, the absence of more extensive pre-drilling testing may potentially increase the risk of drilling a non-producing well, which would in turn result in increased costs and expenses. Additionally, we are typically engaged in drilling deep onshore wildcat wells in Israel where only approximately 500 total wells have ever been drilled, the vast majority of which are relatively shallow. As such, exploration risks are inherently very substantial.

Exploratory well drilling locations that we decide to drill may not yield oil or natural gas in commercially viable quantities.

There is no way to predict in advance of drilling and testing whether any particular location will yield oil or natural gas in sufficient quantities to recover drilling or completion costs or to be economically viable. The use of technologies and the study of producing fields in the same area will not enable us to know conclusively prior to drilling whether oil, natural gas liquids (NGLs) or natural gas will be present or, if present, whether oil or natural gas will be present in sufficient quantities to be economically viable. Even if sufficient amounts of oil, NGLs or natural gas exist, we may inadvertently damage the potentially productive hydrocarbon bearing formation or experience mechanical difficulties while drilling or completing a well, resulting in a reduction in production from the well or abandonment of the well. If we drill exploratory wells that we identify as dry holes in our future drilling locations, our business may be materially harmed. We cannot assure you that the analogies we draw from available data from other wells, more fully explored locations or producing fields will be applicable to our drilling locations. Ultimately, the

cost of drilling, completing and operating any well is often uncertain, and new wells may not be productive.

Deterioration of political, economic and security conditions in Israel may adversely affect our operations.

Any major hostilities involving Israel, a substantial decline in the prevailing regional security situation or the interruption or curtailment of trade between Israel and its present trading partners could have a material adverse effect on our operations. See the prior discussion on Political Climate.

Prolonged and/or widespread regional conflict in the Middle East could have the following results, among others:

capital market reassessment of risk and subsequent redeployment of capital to more stable areas making it more difficult for us to obtain financing for potential development projects;

security concerns in Israel, making it more difficult for our personnel or supplies to enter or exit the country;

security concerns leading to evacuation of our personnel;

damage to or destruction of our wells, production facilities, receiving terminals or other operating assets;

inability of our service and equipment providers to deliver items necessary for us to conduct our operations in Israel, resulting in delays; and

the lack of availability of drilling rig and experienced crew, oilfield equipment or services if third party providers decide to exit the region.

Loss of property and/or interruption of our business plans resulting from hostile acts could have a significant negative impact on our earnings and cash flow. In addition, we may not have enough insurance to cover any loss of property or other claims resulting from these risks.

We have a history of losses and we cannot assure you that we will ever be profitable.

We incurred net losses of \$8,513,000 for the year ended December 31, 2016, and \$7,306,000 for the year ended December 31, 2015. We cannot provide any assurance that we will ever be profitable.

Earnings, if any, will be diluted due to governmental royalty and charitable contributions.

We are legally bound to pay a government royalty of 12.5% of gross sales revenues. Additionally, we are legally required to pay 6% of gross sales revenue to two separate foundations (3% each to two separate foundations – see the separate section on foundations). As our expenses increase with respect to the amount of sales, these donations and allocation could significantly dilute future earnings and, thus, depress the price of the common stock.

Risks Associated with our Business

We are subject to increasing Israeli governmental regulations and environmental requirements that may cause us to incur substantial incremental costs and/or delays in our drilling program.

Our business is subject to laws and regulations promulgated by the State of Israel relating to the exploration for, and the development, production and marketing of, crude oil and natural gas, as well as safety matters. Legal requirements are frequently changed and subject to interpretation, and we are unable to predict the ultimate cost of compliance with these requirements or their effect on our operations. We may be required to make substantial expenditures to comply with governmental laws and regulations.

Environmental laws and regulations change frequently, and the implementation of new, or the modification of existing, laws or regulations could adversely impact our operations. The discharge of natural gas, crude oil, or other pollutants into the air, soil or water may give rise to substantial liabilities on our part to government agencies and third parties and may require us to incur substantial costs of remediation. In addition, we may incur costs and penalties in addressing regulatory agency procedures regarding possible non-compliance.

Our lack of diversification increases the risk of an investment in us, and our financial condition and results of operations may deteriorate if we fail to diversify.

Our business focus is on oil and gas exploration on a limited number of properties in Israel and exploitation of any significant reserves that are found within our license areas. As a result, we lack diversification, in terms of both the nature and geographic scope of our business. We will likely be impacted more acutely by factors affecting our industry or the regions in which we operate than we would if our business were more diversified. If we are unable to diversify our operations, our financial condition and results of operations could deteriorate.

We currently have no proved reserves or current production and we may never have any.

We do not have any proved reserves or current production of oil or gas. We cannot assure you that any wells will be completed or produce oil or gas in commercially profitable quantities.

Oil and gas exploration is an inherently risky business.

Exploratory drilling involves enormous risks, including the risk that no commercially productive oil or natural gas reservoirs will be discovered. Even when properly used and interpreted, seismic data analysis and other computer simulation techniques are only tools used to assist geoscientists in trying to identify subsurface structures and the presence of an active petroleum system. They do not allow the interpreter to know conclusively if hydrocarbons are present or economically available. The risk analysis techniques we use in evaluating potential drilling sites rely on subjective judgments of our personnel and consultants. Additionally, we are typically engaged in drilling deep onshore wildcat exploratory wells in Israel where only approximately 500 total wells have ever been drilled, the vast majority of which are relatively shallower. As such, exploration risks are inherently very substantial.

A substantial and extended decline in oil or natural gas prices could adversely impact our future rate of growth and the carrying value of our unproved oil and gas assets.

Prices for oil and natural gas fluctuate widely. Fluctuations in the prices of oil and natural gas will affect many aspects of our business, including our ability to attract capital to finance our operations, our cost of capital, and the value of our unproved oil and natural gas properties. Prices for oil and natural gas may fluctuate widely in response to relatively minor changes in the supply of and demand for oil and natural gas, market uncertainty and a wide variety of additional factors that are beyond our control, such as the domestic and foreign supply of oil and natural gas, technological advances affecting energy consumption, and domestic and foreign governmental regulations.

Significant and extended reductions in oil and natural gas prices could require us to reduce our capital expenditures and impair the carrying value of our assets.

The price of oil has fallen precipitously since June 2014, when it was over \$100 per barrel. During February 2016, the price of a barrel of oil dipped under \$30 for the first time in 12 years but has increased since then to a level of approximately \$50 per barrel.

While there is much analysis and speculation as to the cause of this fluctuation in the price and its predicted future course, there are many factors that contribute to the price of oil, none of which the Company controls. The oil price is also impacted by actual supply and demand, as well as by expectation. Demand for energy is closely related to economic activity which is compounded by key advances and innovation in exploration techniques in recent years. Significant geopolitical events such as heightened conflict in the Middle East and largescale terrorist activities can also impact the price of oil tremendously.

If we are successful in finding commercial quantities of oil and/or gas, our revenues, operating results, financial condition and ability to borrow funds or obtain additional capital will depend substantially on prevailing prices for oil

and natural gas. Declines in oil and gas prices may materially adversely affect our financial condition, liquidity, ability to obtain financing and operating results. Lower oil and gas prices also may reduce the amount of oil and gas that we could produce economically.

Historically, oil and gas prices and markets have been volatile, with prices fluctuating widely, and they are likely to continue to be volatile, making it impossible to predict with any certainty the future prices of oil and gas. The bottom line is that there are many and varied causes for the fluctuation in the price of oil and natural gas, and we have no control over these factors.

The insurance we carry is insufficient to cover all of the risks we face, which could result in significant financial exposure.

Exploration for and production of crude oil and natural gas can be hazardous, involving natural disasters and other unplanned events such as blowouts, well cratering, fire and explosion and loss of well control which can result in damage to or destruction of wells, injury to persons, loss of life, or damage to property and the environment. Exploration and production activities are also subject to risk from political developments such as terrorist acts, piracy, civil disturbances, war, expropriation or nationalization of assets, which can cause loss of or damage to our property.

As is customary within our industry, we maintain insurance against many, but not all, potential perils confronting our operations and in coverage amounts and deductible levels that we believe to be economic. Consistent with that profile, our insurance program is structured to provide us financial protection from unfavorable loss resulting from damages to or the loss of physical assets or loss of human life, liability claims of third parties, and exploratory drilling interruption attributed to certain assets and including such occurrences as well blowouts and resulting oil spills, at a level that balances cost of insurance with our assessment of risk and our ability to achieve a reasonable rate of return on our investments. Although we believe the coverage and amounts of insurance carried are adequate and consistent with industry practice, we do not have insurance protection against all the risks we face. Because we chose not to insure certain risks, insurance may not be available at a level that balances the cost of insurance and our desired rates of return, or actual losses exceed coverage limits. We regularly review our risks of loss and the cost and availability of insurance and revise our insurance program accordingly.

If an event occurs that is not covered by insurance or not fully protected by insured limits, it could have a significant adverse impact on our financial condition, results of operations and cash flows.

We face various risks associated with the trend toward increased activism against oil and gas exploration and development activities.

Opposition toward oil and gas drilling and development activity has been growing globally and is particularly pronounced in Organization for Economic Co-operation and Development (“OECD”) countries which include the U.S., the U.K and Israel. Companies in the oil and gas industry, such as us, are often the target of activist efforts from both individuals and non-governmental organizations regarding environmental compliance and business practices, potential damage to fresh water sources, and safety, among other topics. Future activist efforts could result in the following:

delay or denial of drilling permits;

shortening of lease terms or reduction in lease size;

restrictions on installation or operation of gathering or processing facilities;

restrictions on the use of certain operating practices, such as hydraulic fracturing;

legal challenges or lawsuits;

damaging publicity about us;

increased costs of doing business;

reduction in demand for our products; and

other adverse effects on our ability to develop our properties and expand production.

Our need to incur costs associated with responding to these initiatives or complying with any resulting new legal or regulatory requirements resulting from these activities that are substantial and not adequately provided for, could have a material adverse effect on our business, financial condition and results of operations.

Economic risks may adversely affect our operations and/or inhibit our ability to raise additional capital.

Economically, our operations in Israel may be subject to:

exchange rate fluctuations;

royalty and tax increases and other risks arising out of Israeli State sovereignty over the mineral rights in Israel and its taxing authority; and

changes in Israel's economy that could lead to oil and gas price controls.

Consequently, our operations may be substantially affected by local economic factors beyond our control, any of which could negatively affect our financial performance and prospects.

Legal risks could negatively affect our market value.

Legally, our operations in Israel may be subject to:

changes in the Petroleum Law resulting in modification of license and permit rights;

adoption of new legislation relating to the terms and conditions pursuant to which operations in the energy sector may be conducted;

changes in laws and policies affecting operations of foreign-based companies in Israel; and

changes in governmental energy and environmental policies or the personnel administering them.

The Israeli Energy Ministry has now enacted regulations relating to licensing requirements for entities engaged in the fuel sector that would result in our having to obtain additional licenses to market and sell hydrocarbons that we may discover.

Further, in the event of a legal dispute in Israel, we may be subject to the exclusive jurisdiction of Israeli courts or we may not be successful in subjecting persons who are not United States residents to the jurisdiction of courts in the United States, either of which could adversely affect the outcome of a dispute.

There are limitations on the transfer of interests in our petroleum rights, which could impair our ability to raise additional funds to execute our business plan.

The Israeli government has the right to approve any transfer of rights and interests in any license or other petroleum right we hold or may be granted and any mortgage of any license or other petroleum rights to borrow money. If we attempt to raise additional funds through borrowings or joint ventures with other companies and are unable to obtain required approvals from the government, the value of your investment could be significantly diluted or even lost.

Our dependence on the limited contractors, equipment and professional services available in Israel may result in increased costs and possibly material delays in our work schedule.

Due to the lack of competitive resources in Israel, costs for our operations may be more expensive than costs for similar operations in other parts of the world. We are also more likely to incur delays in our drilling schedule and be subject to a greater risk of failure in meeting our required work schedule. Similarly, some of the oil field personnel we need to undertake our planned operations are not necessarily available in Israel or available on short notice for work in Israel. Any or all of the factors specified above may result in increased costs and delays in the work schedule.

Our dependence on Israeli local licenses and permits as well as new regulations calling for enhanced bank guarantees and insurance coverage may require more funds than we have budgeted and may cause delays in our work schedule.

In connection with drilling operations, we are subject to a number of Israeli local licenses and permits. Some of these are issued by the Israeli security forces, the Civil Aviation Authority, the Israeli Water Commission, the Israel Lands Authority, the holders of the surface rights in the lands on which we intend to conduct drilling operations, local and regional planning commissions and environmental authorities.

In the event of a commercial discovery and depending on the nature of the discovery and the production and related distribution equipment necessary to produce and sell the discovered hydrocarbons, we will be subject to additional licenses and permits, including from various departments in the Energy Ministry, regional and local planning commissions, the environmental authorities and the Israel Lands Authority. If we are unable to obtain some or all of these permits or the time required to obtain them is longer than anticipated, we may have to alter or delay our planned work schedule, which would increase our costs.

If we are successful in finding commercial quantities of oil and/or gas, our operations will be subject to laws and regulations relating to the generation, storage, handling, emission, transportation and discharge of materials into the environment, which can adversely affect the cost, manner or feasibility of our doing business. Many Israeli laws and regulations require permits for the operation of various facilities, and these permits are subject to revocation, modification and renewal. Governmental authorities have the power to enforce compliance with their regulations, and violations could subject us to fines, injunctions or both.

If compliance with environmental regulations is more expensive than anticipated, it could adversely impact the profitability of our business.

Risks of substantial costs and liabilities related to environmental compliance issues are inherent in oil and gas operations. It is possible that other developments, such as stricter environmental laws and regulations, and claims for damages to property or persons resulting from oil and gas exploration and production, would result in substantial costs and liabilities. This could also cause our insurance premiums to be significantly greater than anticipated.

The unavailability or high cost of drilling rigs, equipment, supplies, other oil field services and personnel could adversely affect our ability to execute our exploration and development plans on a timely basis and within our budget.

Our industry is cyclical and, from time to time, there is a shortage of drilling rigs, equipment, supplies and oilfield services. There may also be a shortage of trained and experienced personnel. During these periods, the costs of such items are substantially greater and their availability may be limited, particularly in locations that typically have limited availability of equipment and personnel, such as the Eastern Mediterranean, where our operations are located. As a result, drilling rigs and oilfield services may not be available at rates that provide a satisfactory return on our investment.

Additionally, the oil and gas sector is going through very difficult financial times due to the persistently low oil and natural gas prices. This has led to drilling services company reorganizations and even bankruptcies which could impact our ability to obtain drilling equipment, crews, and services from the affected companies. All of these contingencies, over which we have little or no control, can potentially disrupt our budgets and planned time frames.

Risks Related to our Common Stock

We will issue additional common stock in the future, which would dilute the ownership interests of our existing stockholders.

In the future, we anticipate issuing additional securities in connection with capital raising efforts, including shares of our common stock or securities convertible into or exchangeable for our common stock, resulting in the dilution of the ownership interests of our stockholders. We are authorized under our amended and restated certificate of incorporation to issue 200,000,000 shares of common stock. As of February 28, 2017, there were 45,466,257 shares of our common stock issued and outstanding.

We have an effective shelf registration statement on Form S-3/A (File No. 333-193336) from which additional shares of our common stock and other securities can be issued. In addition, we may also issue additional shares of our common stock or securities convertible into or exchangeable for our common stock in connection with the hiring of personnel, future acquisitions, future private placements of our securities for capital raising purposes or for other business purposes. Future issuances of our common stock, or the perception that such issuances could occur, could have a material adverse effect on the price of our common stock. The current registration statement was declared effective by the SEC on March 27, 2014 and therefore, is effective until March 26, 2017 plus 180 days thereafter. On February 23, 2017, the Company filed with the SEC a replacement shelf registration statement on Form S-3 (File No. 333-216191) to become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

On March 13, 2014, the Company filed an S-3/A Form that is part of a replacement registration statement that was filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. From time to time, the Company may offer up to \$102,000,000 of any combination of the securities described in this prospectus, in the form of common stock, debt securities, warrants, and/or units.

When we offer a particular series of securities, we will describe the intended use of the net proceeds from that offering in a prospectus supplement. The actual amount of net proceeds we spend on a particular use will depend on many factors, including, our future capital expenditures, the amount of cash required by our operations, and our 2future revenue growth, if any. Therefore, we will retain broad discretion in the use of the net proceeds.

We currently have a units offering continuing through March 31, 2017 under the S-3/A.

Because the likelihood of paying cash dividends on our common stock is remote at this time, stockholders must look solely to appreciation of our common stock to realize a gain on their investments.

We do not know when or if we will pay dividends. We currently intend to retain future earnings, if any, to finance the expansion of our business. Our future dividend policy is within the discretion of our board of directors and will depend upon various factors, including our business, financial condition, results of operations, capital requirements and investment opportunities. Accordingly, stockholders must look solely to appreciation of our common stock to realize a gain on their investment. This appreciation may not occur.

Our stock price and trading volume may be volatile, which could result in losses for our stockholders.

The public market for our common stock has been characterized by significant price and volume fluctuations. There can be no assurance that the market price of our common stock will not decline below its current or historic price ranges. The market price may bear no relationship to the prospects, stage of development, existence of oil and gas reserves, revenues, earnings, assets or potential of our company and may not be indicative of our future business performance. The trading price of our common stock could be subject to wide fluctuations. Fluctuations in the price of oil and gas and related international political events can be expected to affect the price of our common stock. In addition, the stock market in general has experienced extreme price and volume fluctuations that have affected the market price for many companies, sometimes unrelated to the operating performance of these companies. These market fluctuations, as well as general economic, political and market conditions, may have a material adverse effect on the market price of our common stock.

Some of the factors that could negatively affect our share price or result in fluctuations in the price or trading volume of our common stock include:

actual or anticipated quarterly variations in our operating results,

changes in expectations as to our future financial performance or changes in financial estimates, if any,

announcements relating to our business or the business of our competitors,

conditions generally affecting the oil and natural gas industry,

the success of our operating strategy, and

the operating and stock performance of other comparable companies.

Many of these factors are beyond our control, and we cannot predict their potential effect on the price of our common stock. In addition, the stock market is subject to extreme price and volume fluctuations. This volatility has had a significant effect on the market price of securities issued by many companies for reasons unrelated to their operating performance and could have the same effect on our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

ITEM 2. PROPERTIES

Zion currently holds one active petroleum exploration license onshore Israel, the Megiddo-Jezreel License (with an area of approximately 99,000 acres). We have now selected the specific location of our next drilling prospect well location and hope to commence drilling in the first half of 2017.

The table below summarizes certain data for our license area for the year ended December 31, 2016:

Type of Right	Name	Area (Approx. Acres)	Working Interest	Expiration Date
License	Megiddo-Jezreel	98,842	100%	December 2, 2017 ⁽¹⁾⁽²⁾

(1) After the initial primary term of three years, extendable through December 2, 2020, one year at a time at the commissioner's discretion, subject to compliance with the terms of the license as may be amended.

(2) Declaration of a commercial discovery during the license term, as may in certain circumstances be extended for two years to define the boundaries of the field, would entitle Zion to receive a 30-year lease (extendable for up to an additional 20 years (50 years in all) subject to compliance with a field development work program and production.

Surface Rights

The surface rights to drill site in Megiddo-Jezreel License area are held under a long-term lease by Kibbutz Sde Eliyahu. The rights are owned by the State of Israel and administered by the Israel Lands Authority. Permission has been granted to Zion by both Kibbutz Sde Eliyahu and the Israel Lands Authority for the use of the surface rights.

The surface rights to former drill sites in the former Joseph License area are held under a long-term lease by Kibbutz Ma'anit. The rights are owned by the State of Israel and administered by the Israel Lands Authority. Permission has been granted to Zion by both Kibbutz Ma'anit and the Israel Lands Authority for the use of the surface rights. The Company has completed the plugging obligations of all wells within the Joseph License area and acknowledges its obligation to complete the abandonment of the wells in accordance with guidance from the Environmental Ministry in 2017 even though the Joseph License has expired.

The surface rights to the former drill site in the former Asher-Menashe License area are held under a long-term lease by Kibbutz Ein Carmel. The rights are owned by the State of Israel and administered by the Israel Lands Authority. Permission has been granted to Zion by both Kibbutz Ein Carmel and the Israel Lands Authority for the use of the surface rights. The Company has completed the plugging obligations of the only well within the Asher-Menashe License area and acknowledges its obligation to complete the abandonment of the well in accordance with guidance from the Environmental Ministry in 2017 even though the Asher-Menashe License has expired.

Summary of Exploration Activities/Present Activities

Please refer to the discussion above under Item 1, under the caption "Summary of Exploration Activities" and "Exploration Plans Going Forward".

Office Properties

(i) The Company had a lease for 3,600 square feet of corporate office space in Dallas, Texas, which expired on October 31, 2011. On October 11, 2011, the Company and the landlord entered into an amended lease for its current office premises in Dallas, Texas as well as the addition of adjacent space in the building for a total of 6,500 square feet. Pursuant to the lease amendment, the lease term on the existing office space as well as the additional premises was extended to January 31, 2016.

Rent was paid on a monthly basis and was \$8,072 for each month during 2015 and through January 31, 2016.

On September 10, 2015, the Company signed a new lease agreement with Hartman Income REIT Property Holdings, LLC ("Hartman") for new premises containing 7,276 square feet. The lease term is for 65 months from December 1, 2015 to April 30, 2021. Rent was abated for the first five months (December 2015 through April 2016). Beginning in May 2016 and through April 2017, rent was paid on a monthly basis in the base amount of \$7,882 per month. Thereafter, from May 2017 through April 2018, rent is \$8,186 per month; from May 2018 through April 2019, rent is \$8,489 per month; from May 2019 through April 2020, rent is \$8,792 per month; and from May 2020 through April 2021, rent is \$9,095 per month. We are also obligated to pay our pro-rated portion of all taxes, utilities, and insurance during the lease term.

On June 14, 2016, the Company and Hartman signed a First Amendment to Lease Agreement whereby the premises were expanded to include approximately 1,498 square feet, for a new total of approximately 8,774 square feet. The first amendment commencement date was July 1, 2016 and the payment of monthly rent was revised. Beginning in July 2016 and extending through November 2016, rent is to be paid on a monthly basis in the base amount of \$7,882 per month. Beginning in December 2016 and extending through May 2017, rent is to be paid monthly in the base amount of \$9,505.17 per month. Beginning in June 2017 and extending through May 2018, rent is to be paid monthly in the base amount of \$9,870.75 per month. Beginning in June 2018 and extending through May 2019, rent is to be paid monthly in the base amount of \$10,236.33 per month. Beginning in June 2019 and extending through May 2020, rent is to be paid monthly in the base amount of \$10,601.92 per month. Beginning in June 2020 and extending through May 2021, rent is to be paid monthly in the base amount of \$10,967.50 per month.

(ii) On December 19, 2013, we signed a new lease agreement with Caesarea Asset Edmond Benjamin de Rothschild (2001) Ltd for new premises containing 6,566 square feet. The lease term is five years from February 1, 2014 to January 31, 2019. Rent is to be paid on a monthly basis in the base amount of approximately NIS 37,800 per month (approximately \$10,350 per month at the exchange rate in effect on the date of this report) and is linked to an increase (but not a decrease) in the CPI. Zion is also obligated to pay all related taxes, utilities, insurance and maintenance payments during the lease term. Pursuant to the lease, beginning March 2016, Zion may terminate the agreement upon three months' notice, provided the Company secures a replacement lessee approved by the lessor at its discretion.

Zion has an option to renew the lease for another five years, provided it is not in breach of the agreement, where it is required as well to furnish a notice of intent to exercise the option six months prior to termination of lease and furnishes a bank guarantee and insurance confirmation prior to commencement of option period. Under the lease agreement, the Company is authorized to further sublease part of the leased premises to a third party that is pre-approved by the sub-lessor. Rent and its related taxes, utilities, insurance and maintenance expenses for 2016 and 2015 were \$285,000 and \$282,000, respectively.

Geneva Branch

On July 11, 2014, Zion Oil & Gas, Inc., Geneva Branch was registered in the Canton of Geneva, Switzerland. The legal Swiss name for the foreign branch is "Zion Oil & Gas, Inc., Wilmington, Branch of Geneva". The Zion Swiss Branch has its registered office and its business office at 6 Avenue Jules Crosnier, 1206 Champel, Geneva, Switzerland. The purpose of the branch is to operate a foreign treasury center for the Company.

ITEM 3. LEGAL PROCEEDINGS

On September 12, 2008, the Company entered into a drilling contract with Aladdin Middle East Ltd. (“AME”) pursuant to which AME shipped into Israel its 2,000 horsepower rig for use in the drilling contemplated by the Company’s business plan. The rig was used to drill the Ma’anit-Rehoboth #2 well, the Elijah #3 and the Ma’anit-Joseph #3 well. Drilling operations on the Ma’anit-Joseph #3 well were concluded in July 2011, whereupon the Company released the rig.

In May, 2012, the Company and GuyneyYildizi Petrol UretimSondajMut, ve Tic A.S. (“GYP”), as successor in interest to AME, agreed that the Company would pay GYP \$627,000 in full and final settlement of past bills, and such amount was paid on May 15, 2012. However, the matter related to GYP’s demand for \$550,000 for rig demobilization was excluded from the settlement. The drilling contract between the Company and AME provides that all disputes are to be settled by arbitration in London, United Kingdom.

On December 22, 2015, Zion and GYP entered into a Settlement Agreement and Mutual Release resolving the arbitration by which Zion is required to pay the sum of \$550,000 to and/or for the benefit of GYP plus required value added tax (“VAT”) and income tax withholding under Israeli tax law.

On April 25, 2016, a Final Award by Consent was signed by the arbitrator incorporating the terms of the settlement.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

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

We completed the initial public offering of our common stock in January 2007. From January 3, 2007 and through September 1, 2009, shares of our common stock were traded on the NYSE Amex under the symbol "ZN." Since September 2, 2009, our common stock has been trading on the NASDAQ Global Market, also under the symbol "ZN."

The following table sets forth the high and low sales prices for the common stock for the periods indicated, as reported by the NASDAQ Global Market.

Fiscal Year	High	Low
2016:		
First Quarter	\$ 1.98	\$ 1.52
Second Quarter	\$ 1.83	\$ 1.39
Third Quarter	\$ 1.48	\$ 1.29
Fourth Quarter	\$ 1.43	\$ 1.20

Fiscal Year	High	Low
2015:		
First Quarter	\$ 1.96	\$ 1.38
Second Quarter	\$ 2.17	\$ 1.72
Third Quarter	\$ 2.91	\$ 1.36
Fourth Quarter	\$ 2.06	\$ 1.36

The closing per share sales price of our Common Stock on February 28, 2017 was \$1.30.

Holder

As of February 28, 2017, there were approximately 9,000 shareholders of record of our common stock. A significant number of shares of our Common Stock are held in either nominee name or street name brokerage accounts and, consequently, we are unable to determine the number of beneficial owners of our stock.

Dividends

We have never paid dividends on our common stock and do not plan to pay dividends on the common stock in the foreseeable future. Whether dividends will be paid in the future will be in the discretion of our board of directors and will depend on various factors, including our earnings and financial condition and other factors our board of directors considers relevant. We currently intend to retain earnings to develop and expand our business.

Issuer Purchases of Equity Securities

We do not have a stock repurchase program for our common stock.

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data should be read in conjunction with the financial statements and the notes thereto and the information contained in Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Historical results are not necessarily indicative of future results. The selected financial data for the years ended December 31, 2014, 2013 and 2012 are derived from our audited financial statements not included in this report. All data is in thousands of USD, except share data:

	2016	2015	2014	2013	2012
Statement of Operations Data					
Revenues	—	—	—	—	—
Operating costs and expenses:					
General and administrative expenses	6,664	5,472	4,142	3,618	5,078
Other	2,227	1,790	2,541	2,216	3,310
Impairment of unproved oil and gas properties	—	—	—	3,289	1,965
Gain on derivative liability	(731)	—	—	—	—
Other expense (income), net	353	44	73	(46)	(59)
Net loss	(8,513)	(7,306)	(6,756)	(9,077)	(10,294)
Net loss per share of common stock	(0.21)	(0.20)	(0.19)	(0.27)	(0.33)
Balance Sheet Data					
Cash and cash equivalents	3,192	2,871	5,344	10,414	14,983
Unproved oil and gas properties	6,397	5,022	3,891	2,446	4,700
Current liabilities	1,953	1,453	1,165	2,095	2,859
Total liabilities	3,985	1,702	1,360	2,272	3,058
Stockholders’ equity	7,665	8,730	10,520	12,667	18,246

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

Introduction

The following discussion and analysis should be read in conjunction with Item 6, "Selected Financial Data" and our accompanying financial statements and the notes to those financial statements included elsewhere in this Annual Report. Some of our discussion is forward-looking and involves risks and uncertainties. For information regarding factors that could have a material adverse effect on our business, refer to *Risk Factors* under Item 1A of this Report.

Overview

Zion Oil and Gas is an oil and gas exploration company with a history of 17 years of oil and gas exploration in Israel. We were incorporated in Florida on April 6, 2000 and reincorporated in Delaware on July 9, 2003. We completed our initial public offering in January 2007. Our common stock currently trades on the NASDAQ Global Market under the symbol "ZN."

Zion currently holds one active petroleum exploration license onshore Israel, the Megiddo-Jezreel License ("MJL"), comprising approximately 99,000 acres. The Company has selected the specific drill pad location from which to drill its next exploration well, which, unless extended, must be spud by June 30, 2017 as referenced below. The drilling of this well to the desired depth is subject to the Company raising sufficient funds from equity or debt offerings, of which no assurance can be provided.

Existing and newly promulgated regulations have considerably increased the time needed to obtain all of the needed permits and authorizations from regulatory and local bodies in Israel and, as of the date of this report we do not have final drilling permit approval. See the discussion under “The Onshore Petroleum Exploration Permitting Process in Israel” discussed above. Prior to actually spudding our next exploratory well, we will need to commence rig mobilization to the MJ #1 location to begin rig-up and acceptance testing, assuming no weather or regulatory delays in the first quarter of 2017. The drilling, completion and testing of the well will be subject to raising the necessary capital of which no assurances can be provided. We anticipate that we will need to raise significant funds in order to complete any exploratory well that we spud. To date, we have funded our operations through the issuance of our securities, and we anticipate we will continue to need to raise funds through the issuance of equity securities (or securities convertible into or exchangeable for equity securities). No assurance can be provided that we will be successful in raising the needed equity on favorable terms (or at all).

Our executive offices are located at 12655 N Central Expressway, Suite 1000, Dallas, Texas 75243, and our telephone number is (214) 221-4610. Our field office in Israel is located at 9 Halamish Street, North Industrial Park, Caesarea 3088900, and the telephone number is +972-4-623-8500. Our website address is: www.zionoil.com.

Principal Components of our Cost Structure

Our operating and other expenses primarily consist of the following:

Impairment of Unproved Oil and Gas Properties: Impairment expense is recognized if a determination is made that a well will not be commercially productive. The amounts include amounts paid in respect of the drilling operations as well as geological and geophysical costs and various amounts that were paid to Israeli regulatory authorities.

General and Administrative Expenses: Overhead, including payroll and benefits for our corporate staff, costs of managing our exploratory operations, audit and other professional fees, and legal compliance are included in general and administrative expense. General and administrative expenses also include non-cash stock-based compensation expense, investor relations related expenses, lease and insurance and related expenses.

Depreciation, Depletion, Amortization and Accretion: The systematic expensing of the capital costs incurred to explore for natural gas and oil represents a principal component of our cost structure. As a full cost company, we capitalize all costs associated with our exploration, and apportion these costs to each unit of production, if any, through depreciation, depletion and amortization expense. As we have yet to have production, the costs of abandoned wells are written off immediately versus being included in this amortization pool.

Going Concern Basis

Since we have limited capital resources, no revenue to date and a loss from operations, our financial statements have been prepared on a going concern basis, which contemplates realization of assets and liquidation of liabilities in the ordinary course of business. The appropriateness of using the going concern basis is dependent upon our ability to obtain additional financing or equity capital and, ultimately, to achieve profitable operations. Therefore, there is substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Critical Accounting Policies

Management's discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expense during the reporting period.

We have identified the accounting principles which we believe are most critical to the reported financial status by considering accounting policies that involve the most complex of subjective decisions or assessment.

Impairment of Oil and Gas Properties

We follow the full-cost method of accounting for oil and gas properties. Accordingly, all costs associated with acquisition, exploration and development of oil and gas reserves, including directly related overhead costs, are capitalized.

All capitalized costs of oil and gas properties, including the estimated future costs to develop proved reserves, are amortized on the unit-of-production method using estimates of proved reserves. Investments in unproved properties and major development projects are not amortized until proved reserves associated with the projects can be determined or until impairment occurs. If the results of an assessment indicate that the properties are impaired, the amount of the impairment is included in income from continuing operations before income taxes and the adjusted carrying amount of the unproved properties is amortized on the unit-of-production method.

Our oil and gas properties represent an investment in unproved properties. These costs are excluded from the amortized cost pool until proved reserves are found or until it is determined that the costs are impaired. All costs excluded are reviewed at least quarterly to determine if impairment has occurred. The amount of any impairment is charged to expense since a reserve base has not yet been established. A further impairment requiring a charge to expense may be indicated through evaluation of drilling results, relinquishing drilling rights or other information.

Abandonment of properties is accounted for as adjustments to capitalized costs. The net capitalized costs are subject to a “ceiling test” which limits such costs to the aggregate of the estimated present value of future net revenues from proved reserves discounted at ten percent based on current economic and operating conditions, plus the lower of cost or fair market value of unproved properties. The recoverability of amounts capitalized for oil and gas properties is dependent upon the identification of economically recoverable reserves, together with obtaining the necessary financing to exploit such reserves and the achievement of profitable operations.

During the years 2015 and 2016, the Company did not record any non-cash impairment.

The total net book value of our unproved oil and gas properties under the full cost method is \$6,397,000 at December 31, 2016.

Currency Utilized

Although our oil & gas properties and our principal operations are in Israel, we report all our transactions in United States dollars. Certain dollar amounts in the financial statements may represent the dollar equivalent of other currencies.

Valuation of Deferred Taxes

We record a valuation allowance to reduce our deferred tax asset to the amount that we believe is likely to be realized in the future. In assessing the need for the valuation allowance we have considered not only future taxable income but also feasible and prudent tax planning strategies. In the event that we were to determine that it would be likely that we would, in the future, realize our deferred tax assets in excess of the net recorded amount, an adjustment to the deferred tax asset would be made. In the period that such a determination was made, the adjustment to the deferred tax asset would produce an increase in our net income.

Asset Retirement Obligation

We record a liability for asset retirement obligation at fair value in the period in which it is incurred and a corresponding increase in the carrying amount of the related long lived assets.

Fair Value Considerations

The Company follows ASC 820, “Fair Value Measurements and Disclosures,” as amended by Financial Accounting Standards Board (FASB) Financial Staff Position (FSP) No. 157 and related guidance. Those provisions relate to the Company’s financial assets and liabilities carried at fair value and the fair value disclosures related to financial assets and liabilities. ASC 820 defines fair value, expands related disclosure requirements, and specifies a hierarchy of valuation techniques based on the nature of the inputs used to develop the fair value measures. Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, assuming the transaction occurs in the principal or most advantageous market for that asset or liability.

There are three levels of inputs to fair value measurements - Level 1, meaning the use of quoted prices for identical instruments in active markets; Level 2, meaning the use of quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active or are directly or indirectly observable; and Level 3, meaning the use of unobservable inputs. The Company uses Level 1 inputs for its fair value measurements whenever there is an active market, with actual quotes, market prices, and observable inputs on the measurement date. The Company uses Level 2 inputs for fair value measurements whenever there are quoted prices for similar securities in an active market or quoted prices for identical securities in an inactive market. The Company uses observable market data whenever available. The company uses Level 3 inputs in the Binomial Model used for the valuation of the derivative liability.

Derivative Liabilities

In accordance with ASC 815-40-25 and ASC 815-10-15 Derivatives and Hedging and ASC 480-10-25 Liabilities-Distinguishing Liabilities from Equity, the embedded derivatives associated with the Convertible Bonds are accounted for as liabilities during the term of the related Convertible Bonds.

RESULTS OF OPERATIONS

The following table sets forth our Statements of Operations data for the years ended December 31 (all data is in thousands of USD):

	2016	2015
Operating costs and expenses:		
General and administrative expenses	6,664	5,472
Other	2,227	1,790
Subtotal Operating costs and expenses	8,891	7,262
Gain on derivative liability	(731)	--
Other expense, net	353	44
Net loss	8,513	7,306

FOR THE YEAR ENDED DECEMBER 31, 2016 COMPARED TO DECEMBER 31, 2015

Revenue. We currently have no revenue generating operations.

Operating costs and expenses. Operating costs and expenses for the year ended December 31, 2016 were \$8,891,000 compared to \$7,262,000 for the year ended December 31, 2015. The increase in operating costs and expenses during the year ended December 31, 2016 compared to 2015 is primarily attributable to an increase in general and administrative expenses, and an increase in other expenses during the year ended December 31, 2016, compared to the corresponding period in 2015.

General and administrative expenses. General and administrative expenses for the year ended December 31, 2016 were \$6,664,000 compared to \$5,472,000 for the year ended December 31, 2015. The increase in general and administrative expenses during the year ended December 31, 2016 is primarily attributable to higher non-cash expenses recorded in connection with stock option grants. These higher expenses were partially offset by higher legal and other professional fees related to the GYP arbitration and settlement during 2015.

Other expenses. Other expenses during the year ended December 31, 2016 were \$2,227,000 compared to \$1,790,000 for the year ended December 31, 2015. Other general and administrative expenses are comprised of non-compensation and non-professional expenses incurred. The increase in other general and administrative expenses during the year ended December 31, 2016 compared to 2015 is primarily attributable to marketing and investor relations related expenses incurred during the year ended December 31, 2016.

Gain on derivative liability. Gain on derivative liability during the year ended December 31, 2016 was \$731,000 compared to \$0 for the year ended December 31, 2015. An embedded derivative is contained within the valuation of Zion's \$100 convertible bond offering which closed in March 2016. Therefore, there were no derivative gains or losses in 2015 as this was prior to the referenced bond offering. The gain on derivative liability during the year ended December 31, 2016 is primarily due to the decrease of the Company's share price incurred during the year ended December 31, 2016.

Other expense, net. Other expense, net for the year ended December 31, 2016 was \$353,000 compared to \$44,000 for the year ended December 31, 2015. The increase in Other expense, net during the year ended December 31, 2016 compared to 2015 is primarily attributable to interest expenses accrued on convertible bond during the year ended December 31, 2016.

Net Loss. Net loss for the year ended December 31, 2016 was \$8,513,000 compared to \$7,306,000 for the year ended December 31, 2015.

Liquidity and Capital Resources

Liquidity is a measure of a company's ability to meet potential cash requirements. As discussed above, we have historically met our capital requirements through the issuance of common stock as well as proceeds from the exercise of warrants and options to purchase common equity.

Our ability to continue as a going concern is dependent upon obtaining the necessary financing to complete further exploration and development activities and generate profitable operations from our oil and natural gas interests in the future. Our current operations are dependent upon the adequacy of our current assets to meet our current expenditure requirements and the accuracy of management's estimates of those requirements. Should those estimates be materially incorrect, our ability to continue as a going concern will be impaired. Our financial statements for the year ended December 31, 2016 have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. We have incurred a history of operating losses and negative cash flows from operations. Therefore, there is substantial doubt about our ability to continue as a going concern.

At December 31, 2016, we had approximately \$3,192,000 in cash and cash equivalents compared to \$2,871,000 at December 31, 2015. Our working capital (current assets minus current liabilities) was \$3,025,000 at December 31, 2016 and \$3,587,000 at December 31, 2015.

As of December 31, 2016, the Company provided bank guarantees to various governmental bodies (approximately \$1,139,000) and others (approximately \$66,000) in respect of its drilling operation in the aggregate amount of approximately \$1,205,000. The funds backing these guarantees and additional amounts added to support currency fluctuations as required by the bank, are held in interest-bearing accounts and are reported on the Company's balance sheets as "restricted cash."

During the year ended December 31, 2016, cash used in operating activities totaled \$6,341,000. Cash provided by financing activities during the year ended December 31, 2016 was \$7,822,000 and is primarily attributable to proceeds received from the Dividend Reinvestment and Stock Purchase Plan (the "DSPP" or "Plan") and the \$100 convertible bond offering which closed in March 2016. Net cash used in investing activities such as unproved oil and gas properties, other assets and restricted bank deposits was \$1,160,000 for the year ended December 31, 2016.

We expect to incur additional significant expenditures to further our exploration programs. We estimate that, when we are not actively drilling a well, our expenditures are approximately \$500,000 per month excluding exploratory operational activities. However, when we become engaged in active drilling operations, we estimate an additional

minimum expenditure of approximately \$2,500,000 per month. The above estimates are subject to change. Management believes that our existing cash balance, coupled with anticipated proceeds under the DSPP, will be sufficient to finance our plan of operations, assuming no drilling costs are incurred, through May 31, 2017.

We need to raise funds on an immediate basis in order to drill our next exploratory well to the desired depth and to conduct any post drilling testing that may be required. No assurance can be provided that we will be able to raise the needed operating capital through our current Unit offering that is continuing through March 31, 2017.

Even if we raise the needed funds from the current Unit offering, there are factors that can nevertheless adversely impact our ability to fund our operating needs, including (without limitation), unexpected or unforeseen cost overruns in planned non-drilling exploratory work (e.g., drilling and environmental permit acquisition costs, etc.) in existing license areas and the costs associated with extended delays in undertaking the required exploratory work, which is typical of what we have experienced in the past, or plugging and abandonment activities.

On March 13, 2014 Zion filed an S-3/A Form that is part of a replacement registration statement that was filed with the SEC using a “shelf” registration process. The registration statement was declared effective by the SEC on March 31, 2014. From time to time, we may offer up to \$119,850,000 of any combination of the securities described in this prospectus, in the form of common stock, debt securities, warrants, and/or units. On February 23, 2017, the Company filed with the SEC a replacement shelf registration statement on Form S-3 (File No. 333-216191) to become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

The Dividend Reinvestment and Stock Purchase Plan

On March 27, 2014, the Company launched its Dividend Reinvestment and Stock Purchase Plan (the “DSPP”) pursuant to which stockholders and interested investors can purchase shares of the Company’s Common Stock as well as units of the Company’s securities. The terms of the DSPP are described in the Prospectus Supplement originally filed on March 31, 2014 (the “Original Prospectus Supplement”) with the Securities and Exchange Commission (“SEC”) under the Company’s effective registration Statement on Form S-3, as thereafter amended. On January 13, 2015, the Company amended the Original Prospectus Supplement (“Amendment No. 3”) to provide for a unit option (the “Unit Option”) under the DSPP comprised of one share of Common Stock and three Common Stock purchase warrants with each unit priced at \$4.00. Each warrant afforded the investor or stockholder the opportunity to purchase the Company’s Common Stock at a warrant exercise price of \$1.00. Each of the three warrants series have different expiration dates that have been extended.

On December 28, 2015, Amendment No. 6 to the Original Prospectus Supplement was filed extending the scheduled termination date of the Unit Option to March 31, 2016. On March 31, 2016, the Unit Option terminated. The number of warrants are not of a sufficient quantity to justify OTC (over the counter) trading.

The warrants became first exercisable on May 2, 2016 and continue to be exercisable through May 2, 2017 for ZNWAB (1 year), May 2, 2018 for ZNWAC (2 years) and May 2, 2019 for ZNWAD (3 years), respectively, at a per share exercise price of \$1.00. Warrants for approximately 286,000 shares of Common Stock were issued during the year ended December 31, 2016 (approximately 95,000 each of ZNWAB, ZNWAC, and ZNWAD). As of December 31, 2016, the number of outstanding warrants for each warrant issue is as approximately: 314,000 of ZNWAB, 345,000 of ZNWAC, and 348,000 of ZNWAD. The Company issued approximately 132,000 shares of its Common Stock pursuant to warrant exercises as of December 31, 2016, resulting in cash proceeds of approximately \$132,000.

On November 1, 2016, the Company launched a unit offering (the “Unit Program”) under the Company’s DSPP pursuant to which stockholders and interested investors can purchase units comprised of seven (7) shares of Common Stock and seven (7) Common Stock purchase warrants, at a per unit purchase price of \$10. Each warrant affords the investor or stockholder the opportunity to purchase one share of the Company’s Common Stock at a warrant exercise price of \$1.00. The warrant shall have the symbol “ZNWAE,” but no assurance can be provided that the warrant will be approved for listing on the NASDAQ Global Market. The Company’s new Unit Program is scheduled to terminate on March 31, 2017. Approximately 803,000 shares of stock, and a corresponding number of warrants, were issued during the year ended December 31, 2016.

An Amendment No. 8 to the Prospectus Supplement was filed on January 30, 2017. This Amendment No. 8 to Prospectus Supplement amends the Prospectus Supplement as previously supplemented on July 31, 2014 (“Amendment No. 2 to Prospectus Supplement”).

On January 30, 2017, the Company extended the current Unit Program that was filed under Amendment No. 7, dated November 1, 2016. The Unit Program will continue as under Amendment No. 7, but with a revised time period. Otherwise, the same Unit Program features, conditions and terms in the Prospectus Supplement and Amendment No. 2 apply. The Company's Unit Program began on November 1, 2016 and was to terminate January 31, 2017, but was extended until March 31, 2017.

All warrants will first become exercisable on May 1, 2017, which is the 31st day following the Unit Option Termination Date (i.e., on March 31, 2017) and continue to be exercisable through May 1, 2020 (3 years) at a per share exercise price of \$1.00. If the Common Stock of the Company trades above \$5.00 per share as the closing price for 15 consecutive trading days at any time prior to the expiration date of the warrant, the Company has the sole discretion to provide a Notice to warrant holders of an early termination of the warrant within 60 days of the Notice.

For the year ended December 31, 2016, approximately \$4,338,000 was raised under the DSPP program. As a result, the Company issued approximately 2,796,000 shares of its Common Stock during the same period.

The total amount of funds received from the DSPP, including the exercise of warrants, from the inception date through December 31, 2016 is approximately \$13,025,000.

Rights Offering Senior Convertible Bonds Rights Offering (October 21, 2015 – March 31, 2016)

On October 21, 2015, the Company filed with the SEC a prospectus supplement for a rights offering. Under this rights offering, the Company distributed at no cost, 360,000 non-transferable subscription rights to subscribe for, on a per right basis, two 10% Convertible Senior Bonds par \$100 due May 2, 2021 (the “Notes due May 2021”), to persons who owned shares of the Company’s Common Stock on October 15, 2015, the record date for the offering. Each whole subscription right entitled the participant to purchase two convertible bonds at a purchase price of \$100 per bond. Effective October 21, 2015, the Company executed a Supplemental Indenture, as issuer, with the American Stock Transfer & Trust Company, LLC, a New York limited liability trust company (“AST”), as trustee for the Notes (the “Indenture”).

The offering was scheduled to terminate on January 15, 2016 but was extended to March 31, 2016. On March 31, 2016, the rights offering terminated.

On May 2, 2016, the Company issued approximately \$3,470,000 aggregate principal amount of Notes due May 2021 in connection with the rights offering. The Company received net proceeds of approximately \$3,334,000, from the sale of the Notes, after deducting fees and expenses of \$136,000 incurred in connection with the rights offering. These costs have been discounted as deferred offering costs.

12% Convertible Bonds Public Offering (May 31, 2016 - October 31, 2016)

On May 31, 2016, the Company filed with the SEC a Prospectus Supplement, as subsequently amended on June 22, 2016 and August 30, 2016, for an offering of the Company’s 12% Convertible Senior Bonds due 2028 (the “Bonds;” each, a “Bond”) in a minimum aggregate amount of \$2,500,000, on a “best efforts minimum/maximum offering,” up to a maximum amount of \$12,000,000 (the “Follow On Public Offering”). The Follow On Public Offering was made available through Network 1 Financial Securities, Inc. (“Network 1”) and other licensed broker/dealers. The “best efforts” public offering period was scheduled to continue through September 1, 2016. This conditional closing was subject to extension by the Company, in its sole discretion, for an additional 60-day period to which the Company elected, thereby extending the closing to November 1, 2016. All offering proceeds were deposited into an escrow account at Ocean First Bank, which acted as the escrow agent for the “best efforts” offering.

On November 1, 2016, the Company closed its public bond offering. The minimum aggregate amount of \$2,500,000 was not reached as of the November 1, 2016 closing date. Ocean First Bank was duly authorized and effectively completed the prompt return of invested funds, without deduction, to the rightful owners.

In connection with the “best efforts” offering, the Company incurred and expensed to date approximately \$83,000 of deferred issuance costs, which primarily consisted of underwriter fees, legal and other professional service fees.

Tabular Disclosure of Contractual Obligations

The following summarizes our contractual financial obligations for continuing operations at December 31, 2016, and the effect such obligations are expected to have on our liquidity and cash flow in future periods.

	Payment due by period (in Thousands of USD)					Total
	2017	2018	2019	2020	Thereafter	
Exploration Related Commitments	225	—	—	—	—	225
Operating Leases	290	291	139	130	55	905
Employment Agreements	1,154	—	—	—	—	1,154
Total	1,669	291	139	130	55	2,284

Off-Balance Sheet Arrangements

We do not currently use any off-balance sheet arrangements to enhance our liquidity or capital resource position, or for any other purpose.

Recently Issued Accounting Pronouncements

The Company does not believe that the adoption of any recently issued accounting pronouncements in 2016 had a significant impact on our financial position, results of operations, or cash flow, except for ASC Update No. 2015-03—Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the

associated debt liability, consistent with the presentation of a debt discount. For public business entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is a broad term for the risk of economic loss due to adverse changes in the fair value of a financial instrument. These changes may be the result of various factors, including interest rates, foreign exchange rates, commodity prices and/or equity prices. In the normal course of doing business, we are exposed to the risks associated with foreign currency exchange rates and changes in interest rates.

Foreign Currency Exchange Rate Risks. A portion of our expenses, primarily labor expenses and certain supplier contracts, are denominated in New Israeli Shekels (“NIS”). As a result, we have significant exposure to the risk of fluctuating exchange rates with the U.S. Dollar (“USD”), our primary reporting currency. Since December 2014, the NIS has experienced a revaluation of approximately 0.9% against the USD. Continued revaluation of the NIS (against the USD) should result in higher operating costs for us from NIS denominated expenses. Since December 31, 2015 and 2014 to December 31, 2016, the USD has fluctuated by approximately (1.2%) and (0.9%) respectively against the NIS. Continuing devaluation of the US dollar against the NIS will result in higher operating costs from NIS denominated expenses. To date, we have not hedged any of our currency exchange rate risks, but we may do so in the future.

Interest Rate Risk. Our exposure to market risk relates to our cash and investments. We maintain an investment portfolio of short term bank deposits and money market funds. The securities in our investment portfolio are not leveraged, and are, due to their very short-term nature, subject to minimal interest rate risk. We currently do not hedge interest rate exposure. Because of the short-term maturities of our investments, we do not believe that a change in market interest rates would have a significant negative impact on the value of our investment portfolio except for reduced income in a low interest rate environment. At December 31, 2016, we had cash, cash equivalents and short-term bank deposits of approximately \$4,487,000. The weighted average annual interest rate related to our cash and cash equivalents for the year ended December 31, 2016 was approximately 0.13%.

The primary objective of our investment activities is to preserve principal while at the same time maximizing yields without significantly increasing risk. To achieve this objective, we invest our excess cash in short-term bank deposits and money market funds that may invest in high quality debt instruments.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements required by this item are included beginning at page F-1 below.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES.

We carried out an evaluation required by the Exchange Act, under the supervision and with the participation of our principal executive officer and principal financial and accounting officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act, as of December 31, 2016. Based on this evaluation, our principal executive officer and our principal financial and accounting officer concluded that our disclosure controls and procedures were effective, as of December 31, 2016, to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act are recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer, as appropriate to allow timely decisions regarding required disclosures.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING; CHANGES IN INTERNAL CONTROLS OVER FINANCIAL REPORTING.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting.

Our management, including our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control — Integrated Framework(2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its evaluation under the framework in Internal Control — Integrated Framework (2013), our management concluded that our internal controls over financial reporting were effective as of December 31, 2016. Management reviewed the results of their assessment with our Audit Committee.

Limitations on Controls

Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives as specified above. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected.

Changes in Internal Control over Financial Reporting

During the year ended December 31, 2016, there have been no changes in our internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, these controls.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item will incorporate by reference such information as set forth in our definitive Proxy Statement (the “2017 Proxy Statement”) for our 2017 annual meeting of stockholders. The 2017 Proxy Statement will be filed with the SEC not later than 120 days subsequent to December 31, 2016.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item will incorporate by reference the 2017 Proxy Statement for the 2017 annual meeting of stockholders, which will be filed with the SEC not later than 120 days subsequent to December 31, 2016.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item will incorporate by reference the 2017 Proxy Statement for the 2017 annual meeting of stockholders, which will be filed with the SEC not later than 120 days subsequent to December 31, 2016.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this item will incorporate by reference the 2017 Proxy Statement for the 2017 annual meeting of stockholders, which will be filed with the SEC not later than 120 days subsequent to December 31, 2016.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item will incorporate by reference the 2017 Proxy Statement for the 2017 annual meeting of stockholders, which will be filed with the SEC not later than 120 days subsequent to December 31, 2016.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) (1) Financial Statements:

Report of Independent Registered Public Accounting Firm – MaloneBailey, LLP

Balance Sheets as of December 31, 2016, and 2015.

Statements of Operations for the Years Ended December 31, 2016 and 2015.

Statements of Changes in Stockholders' Equity for the Years Ended December 31, 2016 and 2015.

Statements of Cash Flows for the Years Ended December 31, 2016 and 2015.

Number Description

- | | |
|-----|---|
| 3.1 | <u>Certificate of Amendment to Amended and Restated Certificate of Incorporation of Zion Oil & Gas, Inc. (incorporated herein by reference to the Company's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2011, filed with the SEC on August 9, 2011, Exhibit 3.1, and to the Company's Form 8-K, filed with the SEC on June 11, 2015, Exhibit 3(i).1.)</u> |
| 3.2 | <u>Amended and Restated Bylaws of Zion Oil & Gas, Inc. (incorporated by reference to the Company's Form 8-K filed with the SEC on June 8, 2016.)</u> |
| 4.1 | <u>Registration Statement on Form S-3 (File No. 333-216191) as amended, (incorporated by reference as filed with the SEC on February 23, 2017 and amended March 7, 2017)</u> |
| 4.2 | <u>Prospectus Supplement dated March 10, 2017, (incorporated by reference as filed with the SEC on March 10, 2017)</u> |
| 4.3 | <u>Prospectus Supplement dated July 6, 2015 (incorporated by reference as filed with the SEC on October 21, 2015)</u> |

- 4.4 Prospectus Supplement dated October 21, 2015, as amended, (incorporated by reference as filed with the SEC on October 21, 2015)
- 4.5 Original Indenture (incorporated by reference to the Company's Form 8-A filed with the SEC on October 21, 2015 and to the Registrant's Prospectus, Registration No. 333-193336, Exhibit 4.2 filed with the SEC on March 13, 2014)
- 4.6 Supplemental Indenture effective as of October 21, 2015 between Zion Oil & Gas, Inc., as Issuer, and American Stock Transfer & Trust Company, LLC, as Trustee, (incorporated by reference to the Company's Form 8-K filed with the SEC on October 21, 2015)
- 4.7 Form T-1 Statement of Eligibility of Trustee for Indenture under the Trust Indenture Act of 1939 (incorporated by reference to the Company's Form 8-K filed with the SEC on October 21, 2015)
- 10.1* Executive Employment and Retention Agreements (Management Agreements)
- (i) Employment Agreement dated November 13, 2013 and made effective January 1, 2014 between Zion Oil & Gas, Inc. and John Brown
- (ii) Employment Agreement dated as of June 16, 2015 between Zion Oil & Gas, Inc. and Victor G. Carrillo (incorporated by reference to Exhibit 10.1.(3) to the Company's Form 10-K as filed with the SEC on March 15, 2016)
- (iii) Employment Agreement dated as of July 1, 2016 between Zion Oil & Gas, Inc. and Dustin Guinn (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K as filed with the SEC on September 16, 2016)
- (iv) Employment Agreement dated as of August 15, 2016 between Zion Oil & Gas, Inc. and Michael Croswell Jr (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K as filed with the SEC on September 16, 2016)
- 10.2 2011 Equity Incentive Plan (filed as Annex B to the Company's Definitive Proxy Statement on Schedule 14 A filed with the SEC on May 9, 2011) and as amended (incorporated by reference to the Company's Form S-8 filed with the SEC on June 11, 2015)
- 10.3 2011 Non-Employee Directors Stock Option Plan (filed as Annex C to the Company's Definitive Proxy Statement on Schedule 14 A filed with the SEC on May 9, 2011) and as amended (incorporated by reference to the Company's Form S-8 filed with the SEC on June 11, 2015)

Number Description

- 10.4 Office Lease Agreement between Zion Oil & Gas, Inc., tenant, and Hartman Income REIT Property Holdings, LLC, lease commencement date December 1, 2015 and lease expiration date April 30, 2021 (incorporated by reference to the Company's Form 10-Q filed with the SEC on November 10, 2015)
- 10.5 Megiddo-Jezreel License, as amended, (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K as filed with the SEC on December 10, 2013)
- 14.1 Code of Ethics (incorporated by reference to Exhibit 14.1 to the Company's Current Report on Form 8-K as filed with the SEC on December 10, 2007)
- 23.1* Consent of MaloneBailey, LLP
- 31.1* Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2* Certification of Chief Financial and Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1* Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2* Certification of Chief Financial and Accounting Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101.INS* XBRL Instance Document
- 101.SCH* XBRL Taxonomy Extension Schema
- 101.CAL* XBRL Taxonomy Extension Calculation Linkbase
- 101.DEF* XBRL Taxonomy Extension Definition Linkbase
- 101.LAB* XBRL Taxonomy Extension Label Linkbase
- 101.PRE* XBRL Taxonomy Extension Presentation Linkbase

* filed herewith

SIGNATURES

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

ZION OIL & GAS, INC.
(Registrant)

By: /s/ Victor G. Carrillo	By: /s/ Michael B. Croswell Jr.
Victor G. Carrillo	Michael B. Croswell Jr.
Chief Executive Officer	Chief Financial Officer
(Principal Executive Officer)	(Principal Financial and Accounting Officer)

Date: March 14, 2017

Date: March 14, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Victor G. Carrillo Victor G. Carrillo	Chief Executive Officer and Director (Principal Executive Officer)	March 14, 2017
/s/ Michael B. Croswell Jr. Michael B. Croswell Jr.	Chief Financial Officer (Principal Financial and Principal Accounting Officer)	March 14, 2017
/s/ John M. Brown John M. Brown	Chairman of the Board of Directors	March 14, 2017
/s/ Dustin L. Guinn Dustin L. Guinn	President, Executive Vice Chairman and Director	March 14, 2017
/s/ William H. Avery William H. Avery	General Counsel and Director	March 14, 2017
/s/ Martin M. van Brauman Martin M. van Brauman	Corporate Secretary, Treasurer and Director	March 14, 2017

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/s/ Paul Oroian Paul Oroian	Director	March 14, 2017
/s/ Yehezkel Druckman Yehezkel Druckman	Director	March 14, 2017
/s/ Forrest A. Garb Forrest A. Garb	Director	March 14, 2017
/s/ Kent Siegel Kent Siegel	Director	March 14, 2017
/s/ Gene Scammahorn Gene Scammahorn	Director	March 14, 2017
/s/ Justin W. Furnace Justin W. Furnace	Director	March 14, 2017
/s/ Ralph F. DeVore Ralph F. DeVore	Director	March 14, 2017

Zion Oil & Gas, Inc.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Zion Oil & Gas, Inc.
Dallas, Texas

We have audited the accompanying balance sheets of Zion Oil & Gas, Inc. (the “Company”) as of December 31, 2016, and 2015, and the related statements of operations, changes in stockholders’ equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Zion Oil & Gas, Inc. as of December 31, 2016, and 2015, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1B to the financial statements, the Company suffered recurring losses from operations and has an accumulated deficit, which raises substantial doubt about its ability to continue as a going concern. Management’s plans regarding those matters are also described in Note 1B. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ MALONEBAILEY, LLP
www.malone-bailey.com

Houston, Texas
March 14, 2017

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Zion Oil & Gas, Inc.**Balance Sheets as of**

	December 31, 2016 US\$ thousands	December 31, 2015 US\$ thousands
Current assets		
Cash and cash equivalents	3,192	2,871
Fixed short term bank deposits – restricted	1,295	1,301
Prepaid expenses and other	347	360
Deferred offering cost (see Note 7)	—	134
Other receivables	144	374
Total current assets	4,978	5,040
Unproved oil and gas properties, full cost method (see Note 4)	6,397	5,022
Property and equipment at cost		
Net of accumulated depreciation of \$442 and \$473	113	144
Other assets		
Assets held for severance benefits	162	226
Total assets	11,650	10,432
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	181	396
Asset retirement obligation (see Note 10B)	200	204
Derivative liability (see Note 8)	895	—
Accrued liabilities (see Note 5)	677	853
Total current liabilities	1,953	1,453
Long-term liabilities		
10% Senior convertible bonds, net of unamortized deferred financing cost of \$118 and unamortized debt discount of \$1,513 (see Note 7)	1,826	—
Provision for severance pay	206	249
Total long-term liabilities	2,032	249
Total liabilities	3,985	1,702

Commitments and contingencies (see Note 10)

Stockholders' equity

Common stock, par value \$.01; Authorized: 200,000,000 shares at December 31, 2016: Issued and outstanding: 42,577,541 and 38,220,258 shares at December 31, 2016 and December 31, 2015 respectively	426	382
Additional paid-in capital	157,854	150,450
Accumulated deficit	(150,615)	(142,102)
Total stockholders' equity	7,665	8,730
 Total liabilities and stockholders' equity	 11,650	 10,432

The accompanying notes are an integral part of the financial statements.

Zion Oil & Gas, Inc.

Statements of Operations

	For the year ended December 31,	
	2016	2015
	US\$	US\$
	thousands	thousands
General and administrative	6,664	5,472
Other	2,227	1,790
Loss from operations	(8,891)	(7,262)
Other income (expense), net		
Gain on derivative liability	731	—
Other income, net	43	—
Foreign exchange (loss)	(6)	(10)
Financial (expenses), net	(390)	(34)
Loss before income taxes	(8,513)	(7,306)
Income taxes	—	—
Net loss	(8,513)	(7,306)
Net loss per share of common stock - basic and diluted (in US\$)	(0.21)	(0.20)
Weighted-average shares outstanding—basic and diluted (in thousands)	41,238	37,408

The accompanying notes are an integral part of the financial statements.

Zion Oil & Gas, Inc.**Statements of Changes in Stockholders' Equity**

	Common Stock		Additional	Accumulated	
	Shares	Amounts	paid-in	deficit	Total
		US\$	Capital	US\$	US\$
	thousands		US\$		
		thousands	thousands	thousands	thousands
Balances as of December 31, 2014	35,755	358	144,958	(134,796)	10,520
Funds received from sale of DSPP units and shares	1,795	18	3,656	—	3,674
Funds received from option exercises	670	6	43	—	49
Value of options granted to employees, directors and others	—	—	1,793	—	1,793
Net loss	—	—	—	(7,306)	(7,306)
Balances as of December 31, 2015	38,220	382	150,450	(142,102)	8,730
Funds received from sale of DSPP units and shares	2,796	28	4,310	—	4,338
Value of bonds converted to shares	6	*	8	—	8
Funds received from option exercises	1,556	16	—	—	16
Value of options granted to employees, directors and others	—	—	3,086	—	3,086
Net loss	—	—	—	(8,513)	(8,513)
Balances as of December 31, 2016	42,578	426	157,854	(150,615)	7,665

The accompanying notes are an integral part of the financial statements.

Zion Oil & Gas, Inc.**Statements of Cash Flows**

	For the year ended December 31, 2016 2015 US\$ US\$ thousands thousands	
Cash flows from operating activities		
Net loss	(8,513)	(7,306)
Adjustments required to reconcile net loss to net cash used in operating activities:		
Depreciation	56	61
Capital gain on sale of property and equipment	(43)	-
Cost of options issued to employees, directors and others	2,873	1,699
Interest on short term bank deposits	(8)	11
Interest and finance expense accrued on convertible bonds and amortization of debt discount	357	-
Change in derivative liability	(731)	-
Change in assets and liabilities, net:		
Prepaid expenses and other	13	(80)
Change in other receivables	230	(193)
Severance pay, net	21	(3)
Accounts payable	(181)	261
Accrued liabilities	(411)	62
Asset retirement obligation	(4)	41
Net cash used in operating activities	(6,341)	(5,447)
Cash flows from investing activities		
Investment in short term bank deposits	14	517
Acquisition of property and equipment	(26)	(19)
Proceeds from sale of property and equipment	44	-
Investment in unproved oil and gas properties	(1,192)	(1,113)
Net cash (used in) provided by investing activities	(1,160)	(615)
Cash flows from financing activities		
Proceeds from sale of 10% Senior Convertible Bonds	3,470	-
Deferred offering cost	(2)	(134)
Proceeds from sale of stock and exercise of options	4,354	3,723
Net cash provided by financing activities	7,822	3,589
Net increase (decrease) in cash and cash equivalents	321	(2,473)
Cash and cash equivalents – beginning of period	2,871	5,344

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Cash and cash equivalents – end of period	3,192	2,871
Non-cash investing and financing activities:		
Cost of options capitalized to oil & gas properties	213	94
Unpaid investments in oil & gas properties	25	55
Debt discount related to the derivative liability	1,626	-
Deferred offering cost	136	-
10% Senior Convertible Bonds converted to shares	8	-

The accompanying notes are an integral part of the financial statements.

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 1 - Nature of Operations and Basis of Presentation

A. Nature of Operations

Zion Oil & Gas, Inc., a Delaware corporation (“we,” “our,” “Zion” or the “Company”) is an oil and gas exploration company with a history of 17 years of oil & gas exploration in Israel. As of December 31, 2016, the Company has no revenues from its oil and gas operations.

Exploration Rights/Exploration Activities

Zion currently holds one active petroleum exploration license onshore Israel, the Megiddo-Jezreel License (“MJL”), comprising approximately 99,000 acres. The Company has selected the specific drill pad location from which to drill its next exploration well, which, unless extended, must be spud by June 30, 2017 as referenced below. The drilling of this well to the desired depth is subject to the Company raising sufficient funds from equity or debt offerings, of which no assurance can be provided.

Depending on the results of the planned exploratory well and having adequate cash resources, multiple wells could be drilled from this pad site as several subsurface geologic targets can be reached using directional well trajectories.

Megiddo-Jezreel Petroleum License (“MJL”)

The MJL was awarded on December 3, 2013 for a three-year primary term through December 2, 2016, with the possibility of additional one-year extensions up to a maximum of seven years. The MJL is onshore, south and west of the Sea of Galilee.

On June 28, 2016, the Company submitted a third Application for Extension of Drilling Date, and on July 4, 2016, the Petroleum Commissioner formally approved the application as follows:

No.	Activity Description	To be carried out by:
1	Sign contract with drilling contractor and forward to Petroleum Commissioner	13 October 2016
2	Submit detailed Engineering Plan to carry out the drilling	13 October 2016
3	Spudding in the license area	1 December 2016
4	Submit a final report on the results of the drilling	1 May 2017
5	Submit a plan for continued work in the license area	29 June 2017

The Petroleum Commissioner modified Zion's work plan deadlines and awarded the Company a one-year extension to December 2, 2017 on its MJL, subject to Zion signing a drilling contract and submitting a detailed engineering plan by October 13, 2016 and spudding an exploratory well by December 1, 2016. The Company timely complied with two key Special Conditions of our existing license terms established by the Israel Petroleum Commissioner, by providing on October 13, 2016 the fully executed drilling contract with S.A. Daflog, S.R.L., an Israeli-registered related party entity to DAFORA S.A., and a Detailed Drilling Engineering Plan for the Megiddo-Jezreel #1 well.

Zion then sought an extension to both its spud date and license extension beyond the three-year primary term. Due in part to Zion's timely compliance with the two key Special Conditions of the Company's work program, on November 29, 2016, the State of Israel's Petroleum Commissioner officially approved Zion's drilling date and license extension request. Key details of the extension are as outlined below:

No.	Activity Description	To be carried out by:
1	Begin drilling / spud well	30 June 2017
2	Submit final report on the results of drilling	1 November 2017
3	Submit a plan for continued work in the license area	1 December 2017

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 1 - Nature of Operations and Basis of Presentation (cont'd)

As previously reported, the Company needed authorization from the Israel Land Authority (the “ILA”), the formal lessor of the land to the kibbutz, to access and utilize the drill site. The Company received this authorization on July 4, 2016, effective through January 3, 2017. This is in conjunction with our May 15, 2016 signed agreement with Kibbutz Sde Eliyahu on whose property the drilling pad will be situated.

The drill site plan was prepared by an outside engineering firm to accommodate DAFORA’s F-400 rig. The Company awarded the drill site construction contract to an Israeli company named *Y. Bazelet and Aggregatim LTD*. The construction of the drill site and road was completed in February 2017. Zion is in process of rig mobilization to the MJ#1 location to begin rig-up and acceptance testing. The drilling, completion and testing of the well will be subject to raising the necessary capital of which no assurances can be provided.

Zion’s Former Jordan Valley, Joseph, and Asher-Menashe Licenses

On March 29, 2015, the Energy Ministry formally approved the Company’s application to merge the southernmost portion of the Jordan Valley License into the Megiddo-Jezreel License. The Company has plugged all of its exploratory wells (in the former Joseph and Asher-Menashe Licenses) but acknowledges its obligation to complete the abandonment of these well sites in accordance with guidance from the Environmental Ministry and local officials.

B. Basis of Presentation

To date, the Company has not achieved a discovery of either oil or gas in commercial quantities. The Company incurs cash outflows from operations and all exploration activities and overhead expenses to date have been financed by way of equity or debt financing. The recoverability of the costs incurred to date is uncertain and dependent upon achieving significant commercial production.

The Company's ability to continue as a going concern is dependent upon obtaining the necessary financing to undertake further exploration and development activities and ultimately generating profitable operations from its oil and natural gas interests in the future. The Company's current operations are dependent upon the adequacy of its current assets to meet its current expenditure requirements and the accuracy of management's estimates of those requirements. Should those estimates be materially incorrect, the Company's ability to continue as a going concern may be impaired. The financial statements have been prepared on a going concern basis, which contemplates realization of assets and liquidation of liabilities in the ordinary course of business. During the year ended December 31, 2016, the Company incurred a net loss of approximately \$8.5 million and had an accumulated deficit of approximately \$150.6 million. These factors raise substantial doubt about the Company's ability to continue as a going concern.

The Company expects to incur additional significant expenditures to further its exploration programs. Management is of the opinion that its currently available cash resources are sufficient to finance its plan of operations through May 2017.

To carry out further planned operations beyond that date, the Company must raise additional funds through additional equity and/or debt issuances. There can be no assurance that this capital will be available through the current Unit Program scheduled to terminate on March 31, 2017 or otherwise, and if it is not, the Company may be forced to curtail or cease exploration and development activities, including the drilling of the planned MJ #1 exploratory well. The financial statements do not include any adjustments that might result from the outcome of this uncertainty (See also Note 12).

Note 2 - Summary of Significant Accounting Policies

A. Financial Statements in United States Dollars

The currency of the primary economic environment in which the operations of the Company are conducted is the United States dollar ("dollar"). Therefore, the dollar has been determined to be the Company's functional currency. Non-dollar transactions and balances have been translated into dollars in accordance with the principles set forth in Accounting Standards Codification ("ASC") 830 "Foreign Currency Matters." Transactions in foreign currency (primarily in New Israeli Shekels – "NIS") are recorded at the exchange rate as of the transaction date. Monetary assets and liabilities denominated in foreign currency are translated on the basis of the representative rate of exchange at the balance sheet date. Non-monetary assets and liabilities denominated in foreign currency are stated at historical exchange rates. All exchange gains and losses from re-measurement of monetary balance sheet items denominated in non-dollar currencies are reflected in the statement of operations as they arise.

B. Cash and Cash Equivalents

The Company maintains cash balances with five banks, of which three banks are located in the United States, one in the United Kingdom, and one in Israel and money market mutual funds. For purposes of the statement of cash flows and balance sheet, the Company considers all highly liquid investments with a maturity of three months or less to be cash equivalents. At times, the Company maintains deposits in financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and does not believe it is exposed to any significant credit risk on cash.

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 2 - Summary of Significant Accounting Policies (cont'd)

C. Fixed Short Term time deposits

Interest bearing deposits for a period which exceeds three months but not more than 12 months and are not restricted are classified as Fixed Short Term time deposits.

D. Oil and Gas Properties and Impairment

The Company follows the full-cost method of accounting for oil and gas properties. Accordingly, all costs associated with acquisition, exploration and development of oil and gas reserves, including directly related overhead costs, are capitalized.

All capitalized costs of oil and gas properties, including the estimated future costs to develop proved reserves, are amortized on the unit-of-production method using estimates of proved reserves. Investments in unproved properties and major development projects are not amortized until proved reserves associated with the projects can be determined or until impairment occurs. If the results of an assessment indicate that the properties are impaired, the amount of the impairment is included in loss from continuing operations before income taxes and the adjusted carrying amount of the unproved properties is amortized on the unit-of-production method.

The Company's oil and gas property represents an investment in unproved properties. These costs are excluded from the amortized cost pool until proved reserves are found or until it is determined that the costs are impaired. All costs excluded are reviewed at least quarterly to determine if impairment has occurred. The amount of any impairment is charged to expense since a reserve base has not yet been established. Impairment requiring a charge to expense may be indicated through evaluation of drilling results, relinquishing drilling rights or other information.

During the year ended December 31, 2016, and 2015, the Company did not record a non-cash impairment charge of its unproved oil and gas properties (see Note 4).

Currently, the Company has no economically recoverable reserves and no amortization base. The Company's unproved oil and gas properties consist of capitalized exploration costs of \$6,397,000 and \$5,022,000 as of December 31, 2016, and 2015, respectively.

E. Property and Equipment

Property and equipment other than oil and gas property and equipment is recorded at cost and depreciated by the straight-line method over its estimated useful lives of three to fourteen years. Depreciation charged to expense amounted to \$56,000 and \$61,000 for the years ended December 31, 2016, and 2015, respectively. During the year ended December 31, 2016, the Company sold one motor vehicle. Proceeds of \$44,000 were received and a capital gain of \$43,000 was recognized.

F. Assets Held for Severance Benefits

Assets held for employee severance benefits represent contributions to severance pay funds and insurance policies that are recorded at their current redemption value.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 2 - Summary of Significant Accounting Policies (cont'd)

G. Use of Estimates

The preparation of the accompanying financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenues and expenses. Such estimates include the valuation of unproved oil and gas properties, deferred tax assets, asset retirement obligations and legal contingencies. These estimates and assumptions are based on management's best estimates and judgment. Management evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors, including the current economic environment, which management believes to be reasonable under the circumstances. The Company adjusts such estimates and assumptions when facts and circumstances dictate. Illiquid credit markets, volatile equity, foreign currency, and energy markets have combined to increase the uncertainty inherent in such estimates and assumptions. As future events and their effects cannot be determined with precision, actual results could differ significantly from these estimates. Changes in those estimates resulting from continuing changes in the economic environment will be reflected in the financial statements in future periods.

H. Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled (see Note 9). The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the statements of operations in the period that includes the enactment date.

Based on Accounting Standards Codification (ASC) 740-10-25-6 “Income Taxes,” the Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company accounts for interest and penalties related to unrecognized tax benefits, if and when required, as part of income tax expense in the statements of operations. No liability for unrecognized tax benefits was recognized as of December 31, 2016, and 2015.

I. Environmental Costs and Loss Contingencies

Liabilities for loss contingencies, including environmental remediation costs not within the scope of Financial Accounting Standards Board (FASB) ASC Subtopic 410-20, Asset Retirement Obligations and Environmental Obligations – Asset Retirement Obligations, arising from claims, assessments, litigation, fines, and penalties and other sources, are recorded when probable that a liability has been incurred and the amount of the assessment and/or remediation can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred. Recoveries of environmental remediation costs from third parties that are probable of realization are separately recorded as assets, and are not offset against the related environmental liability.

Accruals for estimated losses from environmental remediation obligations generally are recognized no later than completion of the remedial feasibility study. Such accruals are adjusted as further information develops or circumstances change. Costs of expected future expenditures for environmental remediation obligations are not discounted to their present value.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 2 - Summary of Significant Accounting Policies (cont'd)

J. Asset Retirement Obligation

Obligations for dismantlement, restoration and removal of facilities and tangible equipment at the end of oil and gas property's useful life are recorded based on the estimate of the fair value of the liabilities in the period in which the obligation is incurred. This requires the use of management's estimates with respect to future abandonment costs, inflation, market risk premiums, useful life and cost of capital. The estimate of asset retirement obligations does not give consideration to the value the related assets could have to other parties, although it does take into account estimated residual salvage values. The obligation is recorded if sufficient information about the timing and (or) method of settlement is available to reasonably estimate fair value (see Note 10B).

K. Net Loss per Share Data

Basic and diluted net loss per share of common stock, par value \$0.01 per share ("Common Stock") is presented in conformity with ASC 260-10 "Earnings Per Share." Diluted net loss per share is the same as basic net loss per share as the inclusion of 6,701,596 and 4,644,348 Common Stock equivalents in 2016 and 2015 respectively, would be anti-dilutive.

L. Stock Based Compensation

The Company follows ASC 718-20-55, "Compensation – Stock Compensation" ("ASC 718-20-55"), which requires measurement of compensation cost for all stock-based awards based upon the fair value on date of grant and recognition of compensation over the service period for awards expected to vest. Under this method, the Company has recognized compensation cost for awards granted beginning January 1, 2006, based on the Black-Scholes option-pricing method.

The Company accounts for equity instruments issued to non-employees in accordance with the provisions of ASC 505, "Equity," using a fair-value approach.

As noted, the value of stock option grants is recognized as a compensation expense, on a graded-vesting basis, over the requisite service period of the entire award, net of estimated forfeitures unless vested.

M. Fair Value Measurements

The Company follows Accounting Standards Codification (ASC) 820, "Fair Value Measurements and Disclosures," as amended by Financial Accounting Standards Board (FASB) Financial Staff Position (FSP) No. 157 and related guidance. Those provisions relate to the Company's financial assets and liabilities carried at fair value and the fair value disclosures related to financial assets and liabilities. ASC 820 defines fair value, expands related disclosure requirements, and specifies a hierarchy of valuation techniques based on the nature of the inputs used to develop the fair value measures. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, assuming the transaction occurs in the principal or most advantageous market for that asset or liability.

There are three levels of inputs to fair value measurements - Level 1, meaning the use of quoted prices for identical instruments in active markets; Level 2, meaning the use of quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in markets that are not active or are directly or indirectly observable; and Level 3, meaning the use of unobservable inputs.

The Company uses Level 1 inputs for its fair value measurements whenever there is an active market, with actual quotes, market prices, and observable inputs on the measurement date. The Company uses Level 2 inputs for fair value measurements whenever there are quoted prices for similar securities in an active market or quoted prices for identical securities in an inactive market. The Company uses Level 3 inputs in the Binomial Model used for the valuation of the derivative liability.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 2 - Summary of Significant Accounting Policies (cont'd)

N. Derivative Liabilities

In accordance with ASC 815-40-25 and ASC 815-10-15 Derivatives and Hedging and ASC 480-10-25 Liabilities-Distinguishing Liabilities from Equity, the embedded derivatives associated with the Convertible Bonds are accounted for as a liability during the term of the related Convertible Bonds (see Note 8).

O. Recently Adopted Accounting Pronouncements

The Company does not believe that the adoption of any recently issued accounting pronouncements in 2016 had a significant impact on our financial position, results of operations, or cash flow, except for ASC Update No. 2015-03—Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, consistent with the presentation of a debt discount. For public business entities, the amendments in this Update are effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. At December 31, 2016, the Company reclassified \$118,000 in deferred offering costs from an asset account and applied it to the outstanding debt balance (see Note 7).

P. Reclassifications

Certain reclassifications have been made to conform the prior period's financial information to the current period's presentation.

Note 3 - Provision for Severance Pay

Israeli law generally requires payment of severance pay upon dismissal of an employee or upon termination of employment in certain other circumstances. The following plans relate to the employees in Israel:

- A.** The liability in respect of certain of the Company's employees is discharged in part by participating in a defined contribution pension plan and making regular deposits with recognized pension funds.

The deposits are based on certain components of the salaries of the said employees. The custody and management of the amounts so deposited are independent of the Company's control and accordingly such amounts funded (included in expenses on an accrual basis) and related liabilities are not reflected in the balance sheet.

- B.** The Company's liability for severance pay for its Israeli employees is calculated pursuant to Israeli severance pay law based on the most recent salary of the employee multiplied by the number of years of employment, as of the balance sheet date. Employees are entitled to one month's salary for each year of employment, or a portion thereof. Certain senior executives are entitled to receive additional severance pay. The Company's liability for all of its Israeli employees is partly provided for by monthly deposits in insurance policies and the remainder by an accrual in the financial statements. The value of these policies is recorded as an asset in the Company's balance sheet.

The deposited funds include profits/loss accumulated up to the balance sheet date. The value of the deposited funds is based on current redemption value of these policies.

- C.** Withdrawals from the funds may be made only upon termination of employment.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 3 - Provision for Severance Pay (cont'd)

As of December 31, 2016, and 2015, the Company has a provision for severance pay of \$206,000 and \$249,000, respectively, of which all was long-term. As of December 31, 2016, and 2015, the Company has \$162,000 and D.\$226,000, respectively, deposited in funds managed by major Israeli financial institutions which are earmarked to cover severance pay liability. Such deposits are not considered to be “plan assets” and are therefore included in other assets.

Note 4 - Unproved Oil and Gas Properties, Full Cost Method

Unproved oil and gas properties, under the full cost method, are comprised as follows:

	December 31, 2016 US\$ thousands	December 31, 2015 US\$ thousands
Excluded from amortization base:		
Inventory, and other operational related costs	1,770	1,312
Capitalized salary costs	1,579	1,177
Legal costs, license fees and other preparation costs	3,018	2,506
Other costs	30	27
	6,397	5,022

Note 5 - Accrued Liabilities

Accrued liabilities are comprised as follows:

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	December 31, 2016 US\$ thousands	December 31, 2015 US\$ thousands
Employees related	190	196
Interest on Convertible bonds	231	-
Rights offering payables	8	540
Other	248	117
	677	853

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity

A. Authorized Common Shares

The Company's Amended and Restated Certificate of Incorporation was amended effective June 11, 2015 to increase the number of shares of Common Stock that the Company is authorized to issue from 100 million to 200 million shares.

B. 2005 Stock Option Plan

In 2005, a stock option plan (the "2005 Plan") was adopted by the Company, pursuant to which 1,000,000 shares of Common Stock are reserved for issuance to officers, directors, employees and consultants. The 2005 Plan is administered by the Board of Directors or one or more committees appointed by the board (the "2005 Plan Administrator").

The 2005 Plan contemplates the issuance of stock options by the Company both as a private company and as a publicly traded company and is available to residents of the United States, the State of Israel and other jurisdictions as determined by the 2005 Plan Administrator. Awards of stock options under the 2005 Plan are made pursuant to an agreement between the Company and each grantee. The agreement will, among other provisions, specify the number of shares subject to the option, intended tax qualifications, the exercise price, applicable vesting provisions and the term of the stock option grant, all of which are determined on behalf of the Company by the 2005 Plan Administrator. The 2005 Plan remains in effect for a term of ten years unless terminated or extended according to its provisions.

During the year ended December 31, 2015, the Company granted the following options from the 2005 Stock Option Plan, to purchase:

128,500 shares of Common Stock to senior officers, other staff members, and service providers at an exercise price of \$1.38 per share. The options vested upon grant and are exercisable through January 2, 2025. The fair value of the options at the date of grant amounted to approximately \$106,000.

25,000 shares of Common Stock to a senior officer at an exercise price of \$1.38 per share. The options have a par value of \$.01. The options vested as scheduled on June 30, 2015 and are exercisable through January 1, 2025. The fair value of the options at the date of grant amounted to approximately \$21,000 and,

123,500 shares of Common Stock to directors, senior officers, other staff members, and service providers at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through April 17, 2025. The fair value of the options at the date of grant amounted to \$220,000.

There were no stock issuances from the 2005 Plan during the calendar year 2016.

C. 2011 Equity Incentive Stock Option Plan

In June 2011, the Company's shareholders authorized the adoption of the Zion Oil & Gas, Inc. 2011 Equity Incentive Plan for employees and consultants (the "2011 Plan"), initially reserving for issuance thereunder 2,000,000 shares of Common Stock.

The 2011 Plan provides for the grant of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock, bonus stock, awards in lieu of cash obligations, other stock-based awards and performance units. The 2011 plan also permits cash payments under certain conditions.

The compensation committee of the Board of Directors is responsible for determining the type of award, when and to whom awards are granted, the number of shares and the terms of the awards and exercise prices. The options are exercisable for a period not to exceed ten years from the date of grant.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity (cont'd)

In June 2015, the Company's stockholders approved an increase in the number of shares of Common Stock available under the 2011 Equity Incentive Plan for employees and consultants reserving for issuance thereunder an additional four million shares of Common Stock for a total of six million shares of Common Stock available thereunder.

During the year ended December 31, 2016, the Company granted the following options from the 2011 Equity Incentive Plan for employees, directors and consultants, to purchase:

- i. 25,000 shares of Common Stock to a senior officer at an exercise price of \$0.01. The options vested upon grant and are exercisable through January 1, 2026. The fair value of the options at the date of grant amounted to approximately \$46,000.
- ii. 25,000 shares of Common Stock to a senior officer at an exercise price of \$0.01. The options vested upon grant and are exercisable through January 4, 2026. The fair value of the options at the date of grant amounted to approximately \$47,000.
- iii. 35,000 shares of Common Stock to a non-employee director and a staff member at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through January 15, 2026. The fair value of the options at the date of grant amounted to approximately \$59,000.
- iv. 10,000 shares of Common Stock to one senior officer at an exercise price of \$0.01 per share. The options vested in equal quarterly installments over four consecutive quarters, beginning with the quarter ended June 30, 2016 and are exercisable through April 3, 2026. The fair value of the options at the date of grant amounted to approximately \$18,000. At December 31, 2016, 2,500 of said shares were unvested and the grantee was no longer employed by the company.
- v. 1,540,000 shares of Common Stock to senior officers, other staff members, directors and service providers at an exercise price of \$0.01. The options vested upon grant and are exercisable through June 5, 2026. The fair value of the options at the date of grant amounted to approximately \$2,373,000.
- vi.

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100,000 shares of Common Stock to a senior officer at an exercise price of \$0.01. The options vested upon grant and are exercisable through June 30, 2026. The fair value of the options at the date of grant amounted to approximately \$147,000.

30,000 shares of Common Stock to a consultant at an exercise price of \$.01 per share. The options vested upon vii. grant and are exercisable through November 1, 2026. The fair value of the options at the date of grant amounted to approximately \$36,000.

75,000 shares of Common Stock to senior officers at an exercise price of \$0.01. The options vested upon grant viii. and are exercisable through December 31, 2026. The fair value of the options at the date of grant amounted to approximately \$102,000.

During the year ended December 31, 2015, the Company granted the following options from the 2011 Equity Incentive Plan for employees and consultants, to purchase:

10,000 shares of Common Stock to one senior officer at an exercise price of \$0.01 per share. The options vest in equal quarterly installments over four consecutive quarters, beginning with the quarter ended June 30, 2015 and are i. exercisable through April 2, 2025. The fair value of the options at the date of grant amounted to approximately \$18,000.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity (cont'd)

360,000 shares of Common Stock to staff members and service providers at an exercise price of \$0.01 per share.
ii. The options vested upon grant and are exercisable through August 3, 2025. The fair value of the options at the date of grant amounted to approximately \$630,000.

100,000 shares of Common Stock to one senior officer at an exercise price of \$0.01 per share. The options vested
iii. upon grant and are exercisable through September 3, 2025. The fair value of the options at the date of grant amounted to approximately \$143,000.

225,000 shares of common stock to senior officers, and other staff members at an exercise price of \$0.01 per
iv. share. The options vested upon grant and are exercisable through September 30, 2025. The fair value of the options at the date of grant amounted to approximately \$311,000.

D. 2011 Non-Employee Directors Stock Option Plan

In June 2011, the Company's shareholders authorized the adoption of the Zion Oil & Gas, Inc. 2011 Non-Employee Directors Stock Option Plan for non-employee directors (the "2011 Directors' Plan"), initially reserving for issuance thereunder 1,000,000 share of common stock. Under the 2011 Directors' Plan, only non-qualified options may be issued, and they will be exercisable for a period of six years from the date of grant.

The Compensation Committee of the Board of Directors is responsible for determining the type of award, when to grant awards, to whom awards are granted, the number of shares and the terms of the awards and exercise prices. The options are exercisable for a period not to exceed six years from the date of grant.

In June 2015, the Company's stockholders approved an increase in the number of shares of Common Stock available under the 2011 Non-Employee Directors Stock Option Plan, reserving for issuance thereunder an additional two million shares of Common Stock for a total of three million shares of Common Stock available thereunder.

During the year ended December 31, 2016, the Company granted the following options from the 2011 Non-Employee Directors Stock Option Plan, to purchase:

25,000 shares of Common Stock to a non-employee director at an exercise price of \$1.87 per share. The options
i. vested upon grant and are exercisable through January 31, 2022. The fair value of the options at the date of grant amounted to approximately \$20,000.

400,000 shares of Common Stock to non-employee directors at an exercise price of \$1.55 per share. The options
ii. vested upon grant and are exercisable through June 5, 2022. The fair value of the options at the date of grant amounted to approximately \$239,000.

During the year ended December 31, 2015, the Company granted the following options from the 2011 Non-Employee Directors Stock Option Plan, to purchase:

108,000 shares of Common Stock to non-employee directors at an exercise price of \$1.38 per share. The options
i. vested upon grant and are exercisable through January 2, 2021. The fair value of the options at the date of grant amounted to approximately \$68,000; and

25,000 shares of Common Stock to a non-employee director at an exercise price of \$2.03 per share. The options
ii. have a par value of \$.01. The options vested upon grant and are exercisable through May 1, 2021. The fair value of the options at the date of grant amounted to approximately \$23,000.

Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 6 - Stockholders' Equity (cont'd)****E. Warrants and Options**

The Company has reserved 7,543,596 shares of common stock as of December 31, 2016, for the exercise of warrants and options to employees and non-employees, of which 6,740,220 are exercisable. These warrants and options could potentially dilute basic earnings per share in future years. The warrants and options exercise prices and expiration dates are as follows:

	Exercise Price US\$	Number of Shares	Expiration Date	Warrants or Options
To non-employees				
	0.01	5,000	November 11, 2023	Options
	0.01	10,000	April 16, 2025	Options
	1.67	115,000	October 01, 2024	Options
	1.70	130,000	December 20, 2022	Options
	2.61	77,000	December 04, 2022	Options
To employees and directors				
	0.01	20,000	January 31, 2020	Options
	0.01	20,000	November 11, 2023	Options
	0.01	45,000	March 31, 2024	Options
	0.01	5,000	June 11, 2024	Options
	0.01	4,500	April 16, 2025	Options
	0.01	20,500	August 03, 2025	Options
	0.01	10,000	October 01, 2025	Options
	0.01	25,000	December 31, 2025	Options
	0.01	552,000	June 05, 2026	Options
	0.01	100,000	June 30, 2026	Options
	0.01	25,000	December 31, 2026	Options
	1.38	149,750	January 02, 2025	Options
	1.38	108,000	January 02, 2021	Options
	1.55	400,000	June 05, 2022	Options

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	1.67	390,000	October 01, 2020	Options
	1.67	377,193	October 01, 2024	Options
	1.70	120,000	December 20, 2018	Options
	1.70	203,500	December 20, 2022	Options
	1.73	25,000	January 09, 2019	Options
	1.82	25,000	June 13, 2017	Options
	1.86	25,000	December 03, 2018	Options
	1.87	25,000	January 31, 2022	Options
	1.95	25,000	April 02,2020	Options
	1.96	25,000	September 3, 2019	Options
	2.03	25,000	May 01, 2021	Options
	2.28	25,000	July 10, 2019	Options
	2.61	150,000	December 04, 2017	Options
	2.61	904,500	December 04, 2021	Options
To investors				
	1.00	313,554	May 02, 2017	Warrants
	1.00	344,728	May 02, 2018	Warrants
	1.00	347,840	May 02, 2019	Warrants
	1.00	803,376	March 03, 2020	Warrants
	2.00	1,567,155	January 31, 2020	Warrants
Total outstanding	1.53	* 7,543,596		

* Weighted Average

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Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 6 - Stockholders' Equity** (cont'd)

The stock option transactions since January 1, 2015 are shown in the table below:

	Number of	Weighted
	shares	Average
		exercise
		price
		US\$
Outstanding, December 31, 2014	3,089,693	1.99
Changes during 2015 to:		
Granted to employees, officers, directors and others	1,280,000	0.33
Expired/Cancelled/Forfeited	(62,500)	2.39
Exercised	(677,500)	0.07
Outstanding, December 31, 2015	3,629,693	1.76
Changes during 2016 to:		
Granted to employees, officers, directors and others	2,265,000	0.27
Expired/Cancelled/Forfeited	(172,250)	2.39
Exercised	(1,555,500)	0.01
Outstanding, December 31, 2016	4,166,943	1.58
Exercisable, December 31, 2016	4,166,943	1.58

The aggregate intrinsic value of options exercised during 2016 and 2015 was approximately \$2,400,000 and \$1,033,000 respectively.

The aggregate intrinsic value of the outstanding options and warrants as of December 31, 2016, totaling 7,543,596 was approximately \$1,815,000.

The following table summarizes information about stock options outstanding as of December 31, 2016:

Shares underlying outstanding options (fully vested)

Range of exercise price	Number Outstanding	Weighted average remaining contractual life (years)	Weighted Average Exercise price
US\$			US\$
0.01	20,000	3.08	0.01
0.01	25,000	6.87	0.01
0.01	45,000	7.25	0.01
0.01	5,000	7.45	0.01
0.01	14,500	8.30	0.01
0.01	20,500	8.59	0.01
0.01	10,000	8.75	0.01
0.01	25,000	9.00	0.01
0.01	552,000	9.42	0.01
0.01	100,000	9.49	0.01
0.01	25,000	10.00	0.01
1.38	108,000	4.01	1.38
1.38	149,750	8.01	1.38
1.55	400,000	5.43	1.55
1.67	390,000	3.75	1.67
1.67	492,193	7.76	1.67
1.70	120,000	1.97	1.70
1.70	333,500	5.97	1.70
1.73	25,000	2.02	1.73
1.82	25,000	0.45	1.82
1.86	25,000	1.92	1.86
1.87	25,000	5.09	1.87
1.95	25,000	3.25	1.95
1.96	25,000	2.67	1.96
2.03	25,000	4.33	2.03
2.28	25,000	2.52	2.28
2.61	150,000	0.93	2.61
2.61	981,500	4.93	2.61
0.01-2.61	4,166,943		1.58

Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 6 - Stockholders' Equity (cont'd)****Granted to employees**

The following table sets forth information about the weighted-average fair value of options granted to employees and directors during the year, using the Black Scholes option-pricing model and the weighted-average assumptions used for such grants:

	For the year ended December 31,	
	2016	2015
Weighted-average fair value of underlying stock at grant date	\$1.56	\$1.53
Dividend yields	—	—
Expected volatility	57%-69 %	68%-70 %
Risk-free interest rates	0.94%-1.93 %	0.97%-1.6 %
Expected lives (in years)	3.00-5.50	3.00-5.50
Weighted-average grant date fair value	\$1.35	\$1.36

Granted to non-employees

The following table sets forth information about the weighted-average fair value of options granted to non-employees during the year, using the Black Scholes option-pricing model and the weighted-average assumptions used for such grants:

	For the year ended December 31,	
	2016	2015
Weighted-average fair value of underlying stock at grant date	\$1.51	\$1.74

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Dividend yields	—	—
Expected volatility	69%-70 %	72%-74 %
Risk-free interest rates	1.73%-1.83 %	1.87%-2.23 %
Expected lives (in years)	10.00	10.00
Weighted-average grant date fair value	\$1.50	\$1.71

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity (cont'd)

The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the options.

The expected life represents the weighted average period of time that options granted are expected to be outstanding. The expected life of the options granted to employees and directors is calculated based on the Simplified Method as allowed under Staff Accounting Bulletin No. 110 ("SAB 110"), giving consideration to the contractual term of the options and their vesting schedules, as the Company does not have sufficient historical exercise data at this time. The expected life of the option granted to non-employees equals their contractual term. In the case of an extension of the option life, the calculation was made on the basis of the extended life.

F. Compensation Cost for Warrant and Option Issuances

The following table sets forth information about the compensation cost of warrant and option issuances recognized for employees and directors:

For the year ended	
December 31,	
2016	2015
US\$	US\$
2,726,000	1,528,000

The following table sets forth information about the compensation cost of warrant and option issuances recognized for non-employees:

For the year ended
December 31,
2016 2015
US\$ US\$
360,000 265,000

The following table sets forth information about the compensation cost of option issuances recognized for employees and capitalized to Unproved Oil & Gas properties:

For the year ended
December 31,
2016 2015
US\$ US\$
213,000 94,000

G. Dividend Reinvestment and Stock Purchase Plan (“DSPP”)

On March 27, 2014, the Company launched its Dividend Reinvestment and Stock Purchase Plan (the “DSPP”) pursuant to which stockholders and interested investors can purchase shares of the Company’s Common Stock as well as units of the Company’s securities. The terms of the DSPP are described in the Prospectus Supplement originally filed on March 31, 2014 (the “Original Prospectus Supplement”) with the Securities and Exchange Commission (“SEC”) under the Company’s effective registration Statement on Form S-3, as thereafter amended. On January 13, 2015, the Company amended the Original Prospectus Supplement (“Amendment No. 3”) to provide for a unit option (the “Unit Option”) under the DSPP comprised of one share of Common Stock and three Common Stock purchase warrants with each unit priced at \$4.00. Each warrant afforded the investor or stockholder the opportunity to purchase the Company’s Common Stock at a warrant exercise price of \$1.00. Each of the three warrants series have different expiration dates that have been extended.

On December 28, 2015, Amendment No. 6 to the Original Prospectus Supplement was filed extending the scheduled termination date of the Unit Option to March 31, 2016. On March 31, 2016, the Unit Option terminated. The number of warrants are not of a sufficient quantity to justify OTC (over the counter) trading.

The warrants became first exercisable on May 2, 2016 and continue to be exercisable through May 2, 2017 for ZNWAB (1 year), May 2, 2018 for ZNWAC (2 years) and May 2, 2019 for ZNWAD (3 years), respectively, at a per share exercise price of \$1.00. Warrants for approximately 286,000 shares of Common Stock were issued during the year ended December 31, 2016 (approximately 95,000 each of ZNWAB, ZNWAC, and ZNWAD). As of December 31, 2016, the number of outstanding warrants for each warrant issue is as approximately: 314,000 of ZNWAB, 345,000 of ZNWAC, and 348,000 of ZNWAD. The Company issued approximately 132,000 shares of its Common Stock as of December, 31 2016, resulting in cash proceeds of approximately \$132,000.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity (cont'd)

On November 1, 2016, the Company launched a unit offering (the "Unit Program") under the Company's DSPP pursuant to which stockholders and interested investors can purchase units comprised of seven (7) shares of Common Stock and seven (7) Common Stock purchase warrants, at a per unit purchase price of \$10. The warrant shall have the symbol "ZNWAE," but no assurance can be provided that the warrant will be approved for listing on the NASDAQ Global Market. The Company's new Unit Program is scheduled to terminate on March 31, 2017. Approximately 803,000 shares of stock, and a corresponding number of warrants, were issued during the year ended December 31, 2016.

An Amendment No. 8 to the Prospectus Supplement was filed on January 30, 2017. This Amendment No. 8 to Prospectus Supplement amends the Prospectus Supplement as previously supplemented on July 31, 2014 ("Amendment No. 2 to Prospectus Supplement"). This Amendment No. 8 to Prospectus Supplement should be read in conjunction with the Original Prospectus Supplement and the base Prospectus effective March 27, 2014 and Amendment No. 2. This Amendment No. 8 is incorporated by reference into the Original Prospectus Supplement. This Amendment No. 8 is not complete without, and may not be delivered or utilized except in connection with the Original Prospectus Supplement, including any amendments or supplements thereto.

On January 30, 2017, under the Unit Program of our DSPP, the Company extended the current Unit Option program that was filed under Amendment No. 7, dated November 1, 2016. The Unit Program will continue as under Amendment No. 7, but with a revised time period. Otherwise, the same Unit Program features, conditions and terms in the Prospectus Supplement and Amendment No. 2 apply. The Company's Unit Option Program began on November 1, 2016 and was to terminate January 31, 2017, but was extended until March 31, 2017.

The Unit Option Program enables participants to purchase Units of our securities where each Unit (priced at \$10.00) is comprised of seven (7) shares of Common Stock and seven (7) Common Stock purchase warrants. Each warrant affords the investor or stockholder the opportunity to purchase one share of the Company's Common Stock at a warrant exercise price of \$1.00.

The warrant shall have the symbol “ZNWAE,” but no assurance can be provided that the warrant will be approved for listing on the NASDAQ Global Market.

All warrants will first become exercisable on May 1, 2017, which is the 31st day following the Unit Option Termination Date (i.e., on March 31, 2017) and continue to be exercisable through May 1, 2020 (3 years) at a per share exercise price of \$1.00. If the Common Stock of the Company trades above \$5.00 per share as the closing price for 15 consecutive trading days at any time prior to the expiration date of the warrant, the Company has the sole discretion to provide a Notice to warrant holders of an early termination of the warrant within 60 days of the Notice. The Unit is priced at \$10.00 per Unit and no change will be made to the warrant exercise price of \$1.00 per share.

Accordingly, all references in the Original Prospectus Supplement and Amendment No. 2, concerning the Unit Option continue, except for the substitution of the new Unit Option terms above. All other Plan features, conditions and terms remain unchanged.

For the year ended December 31, 2016, approximately \$4,338,000 was raised under the DSPP program. As a result, the Company issued approximately 2,796,000 shares of its Common Stock during the same period.

The total amount of funds received from the DSPP, including the exercise of warrants, from the inception date through December 31, 2016 is approximately \$13,025,000.

H. Rights Offering (July-September 2015)

On July 6, 2015, the Company filed with the SEC the Prospectus Supplement (dated July 6, 2015) relating to the Company’s rights offering of non-transferable subscription rights to the holders of the Company’s Common Stock as of record date of June 19, 2015 to purchase up to approximately 7,280,000 of subscription rights described below of the Company’s securities.

Under the rights offering, the Company distributed, at no cost to stockholders, non-transferable subscription rights (each “Right” and collectively the “Rights”) to purchase its Common Stock to persons who owned shares of its Common Stock on June 19, 2015 (the “record date”), with each Right consisting of four (4) shares of Common Stock.

Each shareholder that participated received 0.20 of a subscription right for each share of Common Stock owned as of close of business on the record date (i.e., ONE subscription right for each FIVE shares).

Each whole subscription right represented the right to purchase four (4) shares of the Company's Common Stock at a per Right price of \$7.00, or an average purchase price of \$1.75 per share. The rights offering also included an over-subscription privilege.

On September 30, 2015, the rights offering terminated as scheduled. The gross proceeds from the rights offering of approximately \$966,000, less fees and expenses incurred in connection with the rights offering, will be used by the Company to further its drilling efforts and as otherwise provided in the prospectus. As a result of the rights offering, the Company issued approximately 553,000 shares of Common Stock.

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 6 - Stockholders' Equity (cont'd)

I. Rights Offering Senior Convertible Bonds Rights Offering (October 21, 2015 – March 31, 2016)

On October 21, 2015, the Company filed with the SEC a prospectus supplement for a rights offering. Under the rights offering, the Company distributed at no cost, 360,000 non-transferable subscription rights to subscribe for, on a per right basis, two 10% Convertible Senior Bonds par \$100 due May 2, 2021 (the "Notes due May 2021"), to persons who owned shares of the Company's Common Stock on October 15, 2015, the record date for the offering. Each whole subscription right entitled the participant to purchase two convertible bonds at a purchase price of \$100 per bond. Effective October 21, 2015, the Company executed a Supplemental Indenture, as issuer, with the American Stock Transfer & Trust Company, LLC, a New York limited liability trust company ("AST"), as trustee for the Notes (the "Indenture").

The offering was scheduled to terminate on January 15, 2016 but was extended to March 31, 2016. On March 31, 2016, the rights offering terminated.

On May 2, 2016, the Company issued approximately \$3,470,000 aggregate principal amount of Notes due May 2021 in connection with the rights offering. The Company received net proceeds of approximately \$3,334,000, from the sale of the Notes, after deducting fees and expenses of \$136,000 incurred in connection with the rights offering. These costs have been discounted as deferred offering costs (see also Note 7).

J. 12% Convertible Bonds Public Offering (May 31, 2016 – October 31, 2016)

On May 31, 2016, the Company filed with the SEC a Prospectus Supplement, as subsequently amended on June 22, 2016 and August 30, 2016, for an offering of the Company's 12% Convertible Senior Bonds due 2028 (the "Bonds;" each, a "Bond") in a minimum aggregate amount of \$2,500,000, on a "best efforts minimum/maximum offering," up to a maximum amount of \$12,000,000 (the "Follow On Public Offering"). The Follow On Public Offering was made

available through Network 1 Financial Securities, Inc. (“Network 1”) and other licensed broker/dealers. The “best efforts” public offering period was scheduled to continue through September 1, 2016. This conditional closing was subject to extension by the Company, in its sole discretion, for an additional 60-day period to which the Company elected, thereby extending the closing to November 1, 2016. All offering proceeds were deposited into an escrow account at Ocean First Bank, which acted as the escrow agent for the “best efforts” offering.

On November 1, 2016, the Company closed its public bond offering. The minimum aggregate amount of \$2,500,000 was not reached as of the November 1, 2016 closing date. Ocean First Bank was duly authorized and effectively completed the prompt return of invested funds, without deduction, to the rightful owners.

In connection with the “best efforts” offering, the Company incurred and expensed to date approximately \$83,000 of deferred issuance costs, which primarily consisted of underwriter fees, legal and other professional service fees.

K. Warrant Descriptions

The price and the expiration dates for the series of warrants to investors are as follows:

	Period of Grant	US\$	Expiration Date
ZNWAA Warrants	March 2013 – December 2014	2.00	January 31, 2020
ZNWAB Warrants	January 2015 – March 2016	1.00	May 02, 2017
ZNWAC Warrants	January 2015 – March 2016	1.00	May 02, 2018
ZNWAD Warrants	January 2015 – March 2016	1.00	May 02, 2019
ZNWAE Warrants	November 2016 – March 2017	1.00	May 01, 2020

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 7 - Senior Convertible Bonds

Rights Offering -10% Senior Convertible Notes due May 2, 2021

On October 21, 2015, the Company filed with the SEC a prospectus supplement for a rights offering. Under the rights offering, the Company distributed at no cost, 360,000 non-transferable subscription rights to subscribe for, on a per right basis, two 10% Convertible Senior Bonds par \$100 due May 2, 2021 (the “Notes”), to persons who owned shares of the Company’s Common Stock on October 15, 2015, the record date for the offering. Each whole subscription right entitled the participant to purchase two convertible bonds at a purchase price of \$100 per bond. Effective October 21, 2015, the Company executed a Supplemental Indenture, as issuer, with the American Stock Transfer & Trust Company, LLC, a New York limited liability trust company (“AST”), as trustee for the Notes (the “Indenture”).

The offering was scheduled to terminate on January 15, 2016 but was extended to March 31, 2016. On March 31, 2016, the rights offering terminated.

On May 2, 2016, the Company issued approximately \$3,470,000 aggregate principal amount of Notes in connection with the rights offering. The Company received net proceeds of approximately \$3,334,000, from the sale of the Notes, after deducting fees and expenses of \$136,000 incurred in connection with the offering. These costs have been discounted as deferred offering costs.

The Notes contain a convertible option that gives rise to a derivative liability, which is accounted for separately from the Notes (see below and Note 8). Accordingly, the Notes were initially recognized at fair value of approximately \$1,844,000, which represents the principal amount of \$3,470,000 from which a debt discount of approximately \$1,626,000 (which is equal to the fair value of the convertible option) was deducted.

During the year ended December 31, 2016, the Company recorded approximately \$18,000 in amortization expense related to the deferred financing costs, and approximately \$113,000 in debt discount amortization, net. The Notes are

governed by the terms of the Indenture. The Notes are senior unsecured obligations of the Company and bear interest at a rate of 10% per year, payable annually in arrears on May 2 of each year, commencing May 2, 2017. The Notes will mature on May 2, 2021, unless earlier redeemed by the Company or converted by the holder.

Interest and principal may be paid, at the Company's option, in cash or in shares of the Company's Common Stock. The number of shares for the payment of interest in shares of Common Stock, in lieu of the cash amount, will be based on the average of the closing prices of the Company's Common Stock as reported by Bloomberg L.P. for the 30 trading days preceding the record date for the payment of interest; such record date has been designated and will always be the 10th business day prior to the interest payment date on May 2 of each year. The number of shares for the payment of principal, in lieu of the cash amount, shall be based upon the average of the closing price of the Company's Common Stock as reported by Bloomberg L.P. for the 30 trading days preceding the principal repayment date; such record date has been designated as the trading day immediately prior to the 30-day period preceding the maturity date of May 2, 2021. Fractional shares will not be issued and the final number of shares will be rounded up to the next whole share.

At any time prior to the close of business on the business day immediately preceding April 2, 2021, holders may convert their notes into Common Stock at the conversion rate of 44 shares per \$100 bond (which is equivalent to a conversion rate of approximately \$2.27 per share). The conversion rate is subject to adjustment from time to time upon the occurrence of certain events, including, but not limited to, the issuance of stock dividends and payment of cash dividends.

Beginning May 3, 2018, the Company is entitled to redeem for cash the outstanding Notes at an amount equal to the principal and accrued and unpaid interest, plus a 10% premium. No "sinking fund" is provided for the Notes due May 2021, which means that the Company is not required to periodically redeem or retire the Notes due May 2021.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 7 - Senior Convertible Bonds (cont'd)

Through the year ended December 31, 2016, approximately 129 convertible bonds of \$100 each have been converted under this offering at a conversion rate of approximately \$2.27 per share. As a result, the Company issued approximately 5,700 shares of its Common Stock during the same period.

	December 31, 2016 US\$	December 31, 2015 US\$
10% Senior Convertible Bonds, net of debt discount on derivative liability of \$1,626,000 on the day of issuance	\$ 1,844,000	-
Debt discount amortization, net	\$ 113,000	-
Bonds converted to shares	\$ (13,000)	-
Offering cost, net	\$ (118,000)	-
10% senior Convertible bonds – Long Term Liability	\$ 1,826,000	-

For the year ended December 31, 2016, the Company recognized interest expense of approximately \$231,000 related to the Notes, payable for the first time and in arrears on May 2, 2017.

Note 8 - Derivative Liability

The Notes issued by the Company and discussed in Note 7 contain a convertible option that gives rise to a derivative liability.

The debt instrument the Company issued includes a make-whole provision, which provides that in the event of conversion by the investor under certain circumstances, the issuer is required to deliver to the holder additional

consideration beyond the settlement of the conversion obligation.

Because time value make-whole provisions are not clearly and closely related to the debt host and would meet the definition of a derivative if considered freestanding, they should be evaluated under the indexation guidance to determine whether they would be afforded the scope exception pursuant to ASC 815-10-15-74(a). This evaluation is generally performed in conjunction with the analysis of the embedded conversion feature.

The Company has measured its derivative liability at fair value and recognized the derivative value as a current liability and recorded the derivative value on its balance sheet. The fair value of the shares to be issued upon conversion of the Notes was recorded as a derivative liability, with the change in the fair value recorded as a gain or loss in the accompanying statement of operations.

The valuation of the Notes was done by using the Binomial Model, a well-accepted option-pricing model, and based on the Notes' terms and other parameters the Company identified as relevant for the valuation of the Notes' Fair Value.

The Binomial Model used the forecast of the Company share price during the Note's contractual term.

Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 8 - Derivative Liability** (cont'd)

As of December 31, 2016, the Company's liabilities that are measured at fair value are as follows:

	December 31, 2016		December 31, 2015	
	Level 3	Total	Level 3	Total
	US\$		US\$	
Fair value of derivative liability at December 31, 2016	\$895,000	\$895,000	-	-

Change in value of derivative liability during 2016 are as follows:

	US\$ thousands
Derivative liability fair value at May 2, 2016	1,626
Gain on derivative liability	(731)
Derivative liability fair value at December 31, 2016	895

The following table presents the assumptions that were used for the model as of December 31, 2016:

	December 31, 2016		May 2, 2016	
Convertible Option Fair Value of approximately	\$ 895,000		\$1,626,000	
Annual Risk-free Rate	1.86	%	1.41	%
Volatility	57.56	%	63.15	%
Expected Term (years)	4.34		5.00	
Convertible Notes Face Value	\$ 3,457,100		\$3,470,000	
Expected annual yield on Regular Notes	28.77	%	28.77	%

Price of the Underlying Stock	\$ 1.37	\$1.74
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During the year ended December 31, 2016, the Company recorded unrealized gains of approximately \$731,000 (net) within the Statements of Operations line item, gain on derivative liability. A slight change in an unobservable input like volatility could have a significant impact on the fair value measurement of the derivative liability.

Note 9 - Income Taxes

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2016 and 2015 are presented below:

	December 31, 2016 US\$ thousands	December 31, 2015 US\$ thousands
Deferred tax assets:		
Net operating loss carry forwards	49,151	46,216
Other	2,891	2,221
Total gross deferred tax assets	52,042	48,437
Less – valuation allowance	(49,630)	(46,740)
Net deferred tax assets	2,412	1,697
Deferred tax liabilities:		
Property and equipment	11	10
Other	(248)	-
Unproved oil and gas properties	(2,175)	(1,707)
Total gross deferred tax liabilities	(2,412)	(1,697)
Net deferred tax asset	—	—

In assessing the likelihood of the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets, including net operating losses, is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible and tax carry forwards are utilizable.

Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 9 – Income Taxes (cont'd)**

Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. In order to fully realize the deferred tax asset, the Company will need to generate future taxable income of approximately \$144,563,000 prior to the expiration of some of the net operating loss carry forwards between 2022 and 2037. Based upon the level of historical taxable losses since the Company's inception, management believes that the Company will not likely realize the benefits of these deductible differences and tax carry forwards and thus, full valuation allowances have been recorded at December 31, 2016 and 2015.

At December 31, 2016, the Company has available federal net operating loss carry forwards of approximately \$144,563,000 to reduce future U.S. taxable income. These amounts expire from 2022 to 2037.

Income earned from activities in Israel is subject to regular Israeli tax rates. For Israeli tax purposes, exploration costs on unproved properties are expensed. Tax losses can be carried forward indefinitely. At December 31, 2016, the Company has available net operating loss carry forwards of approximately \$97,670,000 to reduce future Israeli taxable income.

Reconciliation between the theoretical tax benefit on pre-tax reported (loss) and the actual income tax expense:

	Year ended		Year ended	
	December 31,		December 31,	
	2016		2015	
	US\$		US\$	
	thousands		thousands	
Pre-tax loss as reported	(8,515)	(7,306)
U.S. statutory tax rate	34	%	34	%
Theoretical tax expense	(2,895)	(2,484)

Increase in income tax expense resulting from:

Permanent differences	5	3
Other differences	—	—
Change in valuation allowance	2,890	2,481
Income tax expense	—	—

The Company has no material unrecognized tax benefit which would favorably affect the effective income tax rate in future periods and does not believe there will be any significant increases or decreases within the next twelve months. No interest or penalties have been accrued.

The Company has not received final tax assessments since incorporation. In accordance with the US tax regulations, the U.S. federal income tax returns remain subject to examination for the years beginning in 2013.

The Israeli branch has not received final tax assessments since incorporation. In accordance with the Israeli tax regulations, tax returns submitted up to and including the 2012 tax year can be regarded as final.

Note 10 - Commitments and Contingencies

A. Litigation

From time to time, the Company may be subject to routine litigation, claims, or disputes in the ordinary course of business. The Company defends itself vigorously in all such matters. In the opinion of management, no pending or known threatened claims, actions or proceedings against the Company are expected to have a material adverse effect on its financial position, results of operations or cash flows. However, the Company cannot predict with certainty the outcome or effect of any such litigation or investigatory matters or any other pending litigation or claims. There can be no assurance as to the ultimate outcome of any such lawsuits and investigations.

Zion Oil & Gas, Inc.**Notes to Financial Statements****Note 10 - Commitments and Contingencies (cont'd)****B. Asset Retirement**

The Company currently estimates that the costs of plugging and decommissioning of the exploratory wells drilled to date in the Company former Asher-Menashe and Joseph License areas to be approximately \$200,000 based on current cost rather than Net Present Value. The Company expects to incur such costs in 2017. Liabilities for expenditures are recorded when environmental assessment and/or remediation is probable and the timing and costs can be reasonably estimated.

Changes in Asset Retirement Obligations were as follows:

	December 31, 2016 US\$ thousands	December 31, 2015 US\$ thousands
Asset Retirement Obligations, Beginning Balance	204	163
Liabilities Settled	(4)	(249)
Revision of Estimate	—	290
Retirement Obligations, Ending Balance	200	204

Liabilities of approximately \$4,000 and \$249,000 were settled for the year ended December 31, 2016 and 2015, respectively; those liabilities were related to the Asher-Menashe and Joseph License areas.

C. Environmental and Onshore Licensing Regulatory Matters

The Company is engaged in oil and gas exploration and production and may become subject to certain liabilities as they relate to environmental cleanup of well sites or other environmental restoration procedures and other obligations as they relate to the drilling of oil and gas wells or the operation thereof. Various guidelines have been published in Israel by the State of Israel's Petroleum Commissioner and Energy and Environmental Ministries since 2012 as it pertains to oil and gas activities. Mention of these guidelines were included in previous Zion Oil & Gas filings.

On January 11, 2015, the Energy Ministry issued revised guidelines (initially issued in February 2012) for onshore wellbore abandonment that are based on US regulations on well abandonment found in 43 CFR, Section 3162.3-4; applicable Texas Railroad Commission guidelines; and Well Abandonment and Inactive Well Practices for U.S. Exploration and Production Operations found in API Bulletin E3. This guideline is effective April 1, 2015.

On February 12, 2015, the Energy Ministry issued guidance for preparation and submission of the drilling program (first presented on April 29, 2014), describing types of and purposes of production tests depending on the stage of development of a reservoir. This guideline is effective April 1, 2015.

On April 27, 2015, the Energy Ministry issued guidelines for well testing, establishing procedures and minimum requirements for pressure testing, production flow testing, fluid analyses testing, etc.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 10 - Commitments and Contingencies (cont'd)

On August 13, 2015, the Energy Ministry issued a new guideline for hydraulic fracturing design and operations that are based on Canadian regulations per Directive 083. This guideline is effective November 21, 2015. The procedures seek to prevent impacts on water wells, non-saline aquifers and prevent surface impacts.

On September 9, 2015, the Energy Ministry issued information relating to application forms for exploration drilling, detailing certain operator requirements prior to drilling, including required submission of an Application for Permit to Drill (APD) and Supplemental APD Information Sheet - Casing Design, both due 30 days prior to commencement of work. In addition, an Application for Permit to Modify (APM) form is provided relating to changes to and modifications of already-approved drilling programs and other actions that were omitted from the original application such as production testing, abandonment, etc. Also, an End of Operation Report (EOR) form is provided to report the end of drilling or a temporary or a final end of operations.

On May 16, 2016, the Energy Ministry issued new guidelines for the preparation and submission of a drilling program in accordance with industry best practices or "Good Oilfield Practice."

On May 17, 2016, the Energy Ministry issued new guidelines for production testing in accordance with "Good Industry Practice" detailing the applicable measures and reporting requirements.

On June 28, 2016, the Energy Ministry issued new guidelines for occupational health and safety practices regarding oil and gas drilling and production activities per international norms, coupled with Israeli legal safety guidelines. These regulations focus on industry best practices in the area of health, safety, and environmental (HS&E) factors as well as risk management. In addition, there is a new requirement to have the Petroleum Commissioner's approval over the safety standards which the operator seeks to apply.

The Company believes that these new regulations are likely increase the expenditures associated with obtaining new exploration rights and drilling new wells. The company expects that additional financial burden could occur as a result of requiring cash reserves that could otherwise be used for operational purposes. These new regulations are likely to increase the time needed to obtain all of the necessary authorizations and approvals prior to drilling.

D. Charitable Foundations

Two charitable foundations were established, one in Israel and one in Switzerland, for the purpose of supporting charitable projects and other charities in Israel, the United States and internationally. A 3% royalty or equivalent interest in any Israeli oil and gas interests as may now be held or, in the future be acquired, by the Company shall be assigned to each charitable organization (6% interest in the aggregate). At December 31, 2016, the Company did not have any outstanding obligation in respect of the charitable foundations, since to this date, no proved reserves have been found.

E. Office and Vehicle Leases

On September 10, 2015, the Company signed a new lease agreement with Hartman Income REIT Property Holdings, LLC (“Hartman”) for new premises containing 7,276 square feet. The lease term is for 65 months (about 5.5 years) from December 1, 2015 to April 30, 2021. Rent is abated for the first five (5) month which is December 2015 through April 2016. Beginning in May 2016 and extending through April 2017, rent is to be paid on a monthly basis in the base amount of \$7,882 per month. Beginning in May 2017 and extending through April 2018, (i) rent is to be paid on a monthly basis in the base amount of \$8,186 per month. Beginning in May 2018 and extending through April 2019, rent is to be paid on a monthly basis in the base amount of \$8,489 per month. Beginning in May 2019 and extending through April 2020, rent is to be paid on a monthly basis in the base amount of \$8,792 per month. Beginning in May 2020 and extending through April 2021, rent is to be paid on a monthly basis in the base amount of \$9,095 per month. The Company is also obligated to pay its pro-rated portion of all taxes, utilities, and insurance during the lease term.

On June 14, 2016, the Company and Hartman signed a First Amendment to Lease Agreement whereby the premises were expanded to include approximately 1,498 square feet, for a new total of approximately 8,774 square feet. The first amendment commencement date was July 1, 2016 and the payment of monthly rent was revised. Beginning in July 2016 and extending through November 2016, rent is to be paid on a monthly basis in the base amount of \$7,882 per month. Beginning in December 2016 and extending through May 2017, rent is to be paid monthly in the base amount of \$9,505.17 per month. Beginning in June 2017 and extending through May 2018, rent is to be paid monthly in the base amount of \$9,870.75 per month. Beginning in June 2018 and extending through May 2019, rent is to be paid monthly in the base amount of \$10,236.33 per month. Beginning in June 2019 and extending through May 2020, rent is to be paid monthly in the base amount of \$10,601.92 per month. Beginning in June 2020 and extending through May 2021, rent is to be paid monthly in the base amount of \$10,967.50 per month.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 10 - Commitments and Contingencies (cont'd)

The Company's field office in Caesarea Israel consisted of 6,566 square feet. The lease term is five years from February 1, 2014 to January 31, 2019. Rent is to be paid on a monthly basis in the base amount of approximately NIS 37,800 per month (approximately \$9,800) per month at the exchange rate in effect on the date of this report (ii) and is linked to an increase (but not a decrease) in the CPI. The Company is also obligated to pay all related taxes, utilities, insurance and maintenance payments during the lease term. Pursuant to the lease, two years from the commencement of the lease term, the Company may terminate the agreement upon three months' notice provided the Company secures a replacement lessee approved by the lessor at its discretion.

The Company has an option to renew the lease for another five years, provided it is not in breach of the agreement, where it is required as well to furnish a notice of intent to exercise the option six months prior to termination of lease and furnishes a bank guarantee and insurance confirmation prior to commencement of option period. Under the lease agreement, the Company is authorized to further sublease part of the leased premises to a third party that is pre-approved by the sub-lessor. Rent and its related taxes, utilities, insurance and maintenance expenses for 2016 and 2015 were \$285,000 and \$282,000, respectively.

The future minimum lease payments as of December 31, 2016, are as follows:

	US\$ thousands
2017	290
2018	291
2019	139
2020	130
2021 and thereafter	55
	905

F. Former Drilling Contract with AME/GYP

On September 12, 2008, the Company entered into a drilling contract with Aladdin Middle East Ltd. (“AME”) pursuant to which AME shipped into Israel its 2,000 horsepower rig for use in the drilling contemplated by the Company’s business plan. The rig was used to drill the Ma’anit-Rehoboth #2 well, the Elijah #3 and the Ma’anit-Joseph #3 well. Drilling operations on the Ma’anit-Joseph #3 well were concluded in July 2011, whereupon the Company released the rig.

In May, 2012, the Company and GuyneyYildizi Petrol UretimSondajMut, ve Tic A.S. (“GYP”), as successor in interest to AME, agreed that the Company would pay GYP \$627,000 in full and final settlement of past bills, and such amount was paid on May 15, 2012. However, the matter related to GYP’s demand for \$550,000 for rig demobilization was excluded from the settlement. The drilling contract between the Company and AME provides that all disputes are to be settled by arbitration in London, United Kingdom.

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 10 - Commitments and Contingencies (cont'd)

On December 22, 2015, Zion and GYP entered into a Settlement Agreement and Mutual Release resolving the arbitration by which Zion is required to pay the sum of \$550,000 to and/or for the benefit of GYP plus required value added tax ("VAT") and income tax withholding under Israeli tax law.

On April 25, 2016, a Final Award by Consent was signed by the arbitrator incorporating the terms of the settlement.

G. Bank Guarantees

As of December 31, 2016, the Company provided bank guarantees to various governmental bodies (approximately \$1,139,000) and others (approximately \$66,000) in respect of its drilling operation in an aggregate amount of approximately \$1,205,000. The funds backing these guarantees and additional amounts added to support currency fluctuations as required by the bank are held in interest-bearing accounts and are reported on the Company's balance sheets as "restricted cash."

Note 11 - Risks and Uncertainties

We are directly influenced by the political, economic and military conditions affecting Israel.

We cannot predict the effect, if any, on our business of renewed hostilities between Israel and its neighbors or any other changes in the political climate in the area. Deterioration of political, economic and security conditions in Israel may adversely affect our operations.

We are subject to increasing Israeli governmental regulations and environmental requirements that may cause us to incur substantial incremental costs and/or delays in our drilling program.

Newly enacted onshore licensing and environmental and safety related regulations promulgated by the various energy related ministries in Israel during 2015-2016 have rendered obtaining new exploration licenses more time-consuming and expensive.

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Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 11 – Risks and Uncertainties (cont'd)

The Company believes that these new and/or revised regulations will also significantly increase the time, effort, and expenditures associated with obtaining all of the necessary authorizations and approvals prior to drilling any subsequent well.

Economic risks may adversely affect our operations and/or inhibit our ability to raise additional capital.

Economically, our operations in Israel may be subject to:

exchange rate fluctuations between the Israeli shekel versus the US Dollar;

the extreme latest change in the oil and gas commodities price and hence the cost of oilfield services and drilling equipment;

royalty and tax increases and other risks arising out of Israeli State sovereignty over the mineral rights in Israel and its taxing authority; and

changes in Israel's economy that could lead to legislation establishing oil and gas price controls.

Consequently, our operations may be substantially affected by local economic factors beyond our control, any of which could negatively affect our financial performance and prospects.

Legal risks could negatively affect our market value.

Legally, our operations in Israel may be subject to:

changes in the Petroleum Law resulting in modification of license and permit rights;

adoption of new legislation relating to the terms and conditions pursuant to which operations in the energy sector may be conducted;

changes in laws and policies affecting operations of foreign-based companies in Israel; and

changes in governmental energy and environmental policies or the personnel administering them.

Our dependence on the limited contractors, equipment and professional services available in Israel may result in increased costs and possibly material delays in our work schedule.

The unavailability or high cost of drilling rigs, equipment, supplies, other oil field services and personnel could adversely affect our ability to execute our exploration and development plans on a timely basis and within our budget.

Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those indicated.

Zion Oil & Gas, Inc.

Notes to Financial Statements

Note 12 - Subsequent Events

(i) On January 1, 2017, the Company granted options from the 2011 Equity Incentive Plan for employees and consultants, to purchase 25,000 shares of Common Stock to a senior officer at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through December 31, 2026. The fair value of the options at the date of grant amounted to approximately \$34,000.

(ii) On January 2, 2017, the Company granted options from the 2011 Equity Incentive Plan for employees and consultants, to purchase 1,555,000 shares of Common Stock to senior officers, staff members and consultants at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through January 1, 2027. The fair value of the options at the date of grant amounted to approximately \$2,115,000.

(iii) On January 5, 2017, the Company granted options from the 2011 Equity Incentive Plan for employees and consultants, to purchase 35,000 shares of Common Stock to senior officers at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through January 4, 2027. The fair value of the options at the date of grant amounted to approximately \$48,000.

(iv) On January 12, 2017, the Company granted options from the 2011 Non-Employee Directors Stock Option Plan, to purchase 20,000 shares of Common Stock to a consultant at an exercise price of \$0.01 per share. The options vested upon grant and are exercisable through January 11, 2027. The fair value of the options at the date of grant amounted to approximately \$27,000.

(v) Approximately \$2,300,000 was collected through the Company's DSPP program during the period January 1, 2017 through February 28, 2017.

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