ZION OIL & GAS INC Form FWP May 22, 2009

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Inside the 'Baker Hughes INTEQ' cabin at Zion's Drill Site

Dear Shareholder and/or Friend of Zion...

Drilling Operations on the Ma'anit-Rehoboth #2 Well

In previous updates, I have mentioned the Drilling Rig and Rig Crews (from Aladdin Middle East Ltd in Turkey) that we brought to Israel, in order to drill our well. In this update, I would like to focus on the Baker Hughes INTEQ 5-person team that we have brought into Israel, from Italy.

Baker Hughes INTEQ is among the world's leading oilfield drilling and evaluation service companies. The INTEQ part of their name came from combining 'INTEgrated Technology' with 'Quality' and their technology is just what Zion needed for the Ma'anit-Rehoboth #2 well.

In order to drill our well 'directionally', we decided to use Baker Hughes INTEQ's AutoTrak rotary steerable drilling system. This system allows for 'pushing and pointing' the drilling bit, rather than only either 'pushing' or 'pointing' the drilling bit.

The Baker Hughes INTEQ team has a dedicated cabin at the drill site and the photograph above shows Paola, the night time MWD (measurements-while-drilling) technician, beside one of the five computers in the cabin.

Some members of the team are always on the drill floor of the drilling rig, while the technician constantly monitors the signals and measurements being relayed from the drill bit. The technology allows us to know the real-time status of the drilling, including the exact position of the drill bit and gives us the ability to steer it, as required.

We really are using 'cutting edge' technology...

Drilling Progress Report

Here is (weekly) Progress Report #2, for the week ended Friday, May 22, 2009. The Report is from Zion's President and Chief Operating Officer, Glen Perry.

"The remaining drilling operations on the Ma'anit-Rehoboth #2 well can be divided into five steps:

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- (1) Drilling directionally into the Triassic formation, a depth of approximately 15,400 feet (4,750 meters).
- (2) Appraisal and evaluation of the Triassic formation using electrical wireline well logs.
- (3) Setting and cementing casing at that depth.
- (4) Drilling deeper to the Permian formation, a depth of approximately 18,000 feet (5,500 meters).
- (5) Appraisal and evaluation of the Permian formation using electrical wireline well logs.

This past week we have been drilling 'directionally' towards the Triassic formation targets and have reached a depth of 10,006 feet (3,050 meters).

The drilling is going according to plan. I am happy to say that there is not much 'news' to report - it's just 'drilling as usual'."

Rights Offering

Our ability to reach the deep Permian formation is dependent on us raising further funds, so we are holding a Rights Offering. Anyone who was a stockholder on the record date of May 4, 2009, has the right to purchase some more Zion stock at \$5.00 per share of stock.

If you are a stockholder, I hope you will exercise your rights to purchase Zion stock at \$5.00 and even consider an over-subscription.

Please be aware that the rights offering is set to expire on June 10, 2009. Although we may, at our discretion, extend that expiration date, if you do want to exercise your rights before they expire, don't wait until it is too late.

Psalm 51:18 - In your good pleasure, make Zion prosper...

Thank you for your continued support of Zion, and

Shalom from Israel

Richard Rinberg

CEO of Zion Oil & Gas, Inc.

www.zionoil.com

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FORWARD LOOKING STATEMENTS: Statements in this communication that are not historical fact, including statements regarding Zion's planned operations, drilling efforts and potential results thereof and plans contingent thereon, are forward-looking statements as defined in the "Safe Harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward looking statements are based on assumptions that are subject to significant known and unknown risks, uncertainties and other unpredictable factors, many of which are described in Zion's periodic reports filed with the SEC and are beyond Zion's control. These risks could cause Zion's actual performance to differ materially from the results predicted by these forward-looking statements. Zion can give no assurance that the expectations reflected in these statements will prove to be correct and assumes no responsibility to update these statements.

Zion Oil & Gas, Inc. has filed a registration statement (including a prospectus) with the SEC for the rights offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about Zion Oil & Gas and its offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, Zion Oil & Gas will send you the prospectus if you request it by calling toll free 1-888-TX1-ZION (1-888-891-9466).

The securities are offered by prospectus only, and only within those States and other jurisdictions in which the securities may be sold, and this announcement is neither an offer to sell nor a solicitation of any offer to buy in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities of any such state or jurisdiction.

More information about the offering is available at www.zionoil.com. A copy of the prospectus can be obtained on request, by calling toll free 1-888-TX1-ZION (1-888-891-9466) or by contacting Kim Kaylor at Zion Oil & Gas, Inc., 6510 Abrams Rd., Suite 300, Dallas, TX 75231; telephone 1-214-221-4610; email: dallas@zionoil.com