FILED BY NATIONAL-OILWELL, INC. PURSUANT TO RULE 425 UNDER THE SECURITIES ACT OF 1933, AS AMENDED AND DEEMED FILED PURSUANT TO RULE 14A-12 UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

SUBJECT COMPANY: VARCO INTERNATIONAL, INC.
COMMISSION FILE NO. 001-08158

This filing relates to the proposed merger of equals transaction (the "Transaction") by between National-Oilwell, Inc. ("National-Oilwell") and Varco International, Inc ("Varco") pursuant to the terms of an Agreement and Plan of Merger, dated as of August 11, 2004 (the "Merger Agreement"), by and between National-Oilwell and Varco. The Merger Agreement is on file with the Securities and Exchange Commission as an exhibit to the Current Report on Form 8-K filed by National-Oilwell on August 12, 2004, and is incorporated by reference into this filing.

ON AUGUST 12, 2004, NATIONAL-OILWELL SENT A MEMORANDUM TO ALL OF ITS EMPLOYEES REGARDING THE TRANSACTION. THE TEXT OF THE MEMORANDUM IS AS FOLLOWS:

[NATIONAL OILWELL LOGO]

NATIONAL OILWELL 10000 Richmond Avenue Houston, TX 77042 P.O. Box 4888 Houston, TX 77210-4888 PHONE 713-346-7559 FAX 713-346-7975 pete.miller@natoil.com

Date: August 12, 2004

From: Pete Miller

Re: Merger Announcement

As announced in the attached press release that was issued this morning, National Oilwell and Varco have entered into a merger agreement. The combined company will be named National Oilwell Varco, Inc. and will bring together some of the most respected product and service lines in the industry.

We are very excited about this combination and the opportunities it presents. National Oilwell Varco will be better positioned to compete effectively in the global marketplace and to respond to our customers' needs with an unparalleled level of quality in capital equipment, expendable products and services. Today, National Oilwell and Varco share the common values of customer service and quality product innovation. Over the next few months, both companies will develop a plan to support these values and maximize the strengths of the combination.

It is the strength, dedication and performance of our employees that make this exciting growth opportunity possible. We anticipate that the merger will occur in four to six months. Until that time, we will continue with business as usual. Thank you for your continued efforts.

FORWARD-LOOKING STATEMENTS

Statements made in this press release that are forward-looking in nature are intended to be "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934 and may involve risks and uncertainties. These statements include, without limitation, statements regarding the consummation of the transaction, its effects on future earnings or other operating results, the expected closing date of the transaction, any other effect or benefit of the transaction, and any other statements that are not historical facts. These risks and uncertainties include the ability of National Oilwell and Varco to achieve their forecasted operating results and the cost savings and operating benefits currently expected from the proposed transaction and the timing and receipt of approvals for the merger. Other risks and uncertainties, which are more fully described in documents filed by National Oilwell and by Varco with the Securities and Exchange Commission, including Annual Reports on Form 10-K, could cause actual results to differ from those contained in the forward-looking statements.

ADDITIONAL INFORMATION

In connection with the proposed merger, National-Oilwell, Inc. and Varco International Inc. will file a joint proxy statement/prospectus with the Securities and Exchange Commission. National-Oilwell, Inc. and Varco International Inc. and their respective directors and officers may be deemed to be participants in the solicitation of proxies from their respective stockholders. Information about these persons can be found in National Oilwell's and Varco's respective Annual Reports on Form 10-K filed with the SEC and additional information about such persons may be obtained from the proxy statement/prospectus when it becomes available. INVESTORS AND SECURITY HOLDERS ARE URGED TO CAREFULLY READ THE JOINT PROXY STATEMENT/PROSPECTUS REGARDING THE PROPOSED TRANSACTION WHEN IT BECOMES AVAILABLE, BECAUSE IT WILL CONTAIN IMPORTANT INFORMATION. Investors and security holders may obtain a free copy of the joint proxy statement/prospectus when it is available and other documents containing information about National-Oilwell, Inc. and Varco International Inc., without charge, at the SEC's web site at WWW.SEC.GOV, National Oilwell's web site at WWW.NATOIL.COM, and Varco's web site at WWW.VARCO.COM. Copies of the joint proxy statement/prospectus and the SEC filings that will be incorporated by reference therein may also be obtained for free by directing a request to either Investor Relations, National-Oilwell, Inc., 713-346-7500 or to Investor Relations, Varco International, Inc., 281-953-2200.

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