UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

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

DATE OF EARLIEST EVENT REPORTED: MAY 6, 2009

ATWOOD OCEANICS, INC. (Exact name of registrant as specified in its charter)

COMMISSION FILE NUMBER 1-13167

TEXAS

(State or other jurisdiction of incorporation or organization)

Internal Revenue Service – Employer Identification No. 74-1611874

15835 Park Ten Place Drive, Houston, Texas, 77084 (281) 749-7800

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

[] Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

[] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

[] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 2.02 RESULTS OF OPERATIONS AND FINANCIAL CONDITION

On May 6, 2009, the Company announced its earnings for the Fiscal Year 2009 Second Quarter ended March 31, 2009. A copy of the press release summarizing these earnings is filed with this Form 8-K as Exhibit 99.1 and is incorporated herein by reference.

Additional information with respect to the Company's consolidated statements of operations for the three months and six months ended March 31, 2009 and 2008, an analysis of revenues and contract drilling costs for the three months and six months ended March 31, 2009 and 2008 and condensed consolidated balance sheets at March 31, 2009 and September 30, 2008 are attached hereto as Exhibits 99.2, 99.3, and 99.4 respectively, which are being furnished; however, should not be deemed to be filed under Section 18 of the Exchange Act.

ITEM 7.01 REGULATION FD DISCLOSURE

Additional information with respect to the Company's Fleet Status Report at May 6, 2009 is attached hereto as Exhibit 99.5. Such information is being furnished under Regulation FD and should not be deemed to be filed under Section 18 of the Exchange Act. The Fleet Status Report has also been posted on the Company's website at www.atwd.com.

Statements contained in this report with respect to the future are forward-looking statements. These statements reflect management's reasonable judgment with respect to future events. Forward-looking statements involve risks and uncertainties. Actual results could differ materially from those anticipated as a result of various factors including; the Company's dependence on the oil and gas industry; the risks involved in the construction of a rig and commencement of operations of the rig following delivery; competition; operating risks; risks involved in foreign operations; risks associated with possible disruption in operations due to terrorism, acts of piracy, embargoes, war or other military operations; and governmental regulations and environmental matters. A list of additional risk factors can be found in the Company's annual report on Form 10-K for the year ended September 30, 2008, filed with the Securities and Exchange Commission.

ITEM 9.01 EXHIBITS

EXHIBIT 99.1 PRESS RELEASE DATED MAY 6, 2009

EXHIBIT 99.2 CONSOLIDATED STATEMENTS OF OPERATIONS FOR THE THREE AND SIX MONTHS ENDED MARCH 31, 2009 AND 2008

EXHIBIT 99.3 ANALYSIS OF REVENUES AND CONTRACT DRILLING COSTS FOR THE THREE MONTHS AND SIX MONTHS ENDED MARCH 31, 2009

EXHIBIT 99.4 CONDENSED CONSOLIDATED BALANCE SHEETS AT MARCH 31, 2009 AND SEPTEMBER 30, 2008

EXHIBIT 99.5 FLEET STATUS REPORT AT MAY 6, 2009

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ATWOOD OCEANICS, INC. (Registrant)

/s/ James M. Holland James M. Holland Senior Vice President

DATE: May 6, 2009

EXHIBIT INDEX

EXHIBIT NO. DESCRIPTION

99.1 Press Release dated May 6, 2009

- 99.2 Consolidated Statements of Operations for the Three Months and Six Months ended March 31, 2009 and 2008
- 99.3 Analysis of Revenues and Drilling Costs for the Three Months and Six Months ended March 31, 2009
- 99.4 Condensed Consolidated Balance Sheets at March 31, 2009 and September 30, 2008
- 99.5 Fleet Status Report at May 6, 2009