



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

Mail Stop 4628

April 26, 2017

Via Email

Mr. Robert J. Saltiel
President and Chief Executive Officer
Atwood Oceanics, Inc.
15011 Katy Freeway, Suite 800
Houston, TX 77094

**Re: Atwood Oceanics, Inc.
Form 10-K for the Fiscal Year ended September 30, 2016
Response Dated March 23, 2017
File No. 001-13167**

Dear Mr. Saltiel:

We have reviewed your March 23, 2017 response to our comment letter and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our March 9, 2017 letter.

Form 10-K for the fiscal year ended September 30, 2016

Financial Statements and Supplementary Data, page 45

Notes to Consolidated Financial Statements, page 52

Note 3 – Property and Equipment, page 57

Impairments

1. The first and second paragraphs on page two of the memorandum provided as part of your response to our comment letter dated March 9, 2017 provide a general description of factors you considered in projecting the timing and award of future contracts and in

developing estimated operating day rates. Explain to us, in detail, how these factors were specifically considered to project the timing and award of future contracts and to develop estimated day rates for each individual rig. That is, for each individual rig, describe for us the specific factors that you considered to project contract timing and award and to develop estimated day rates. Your response should provide sufficient detail to clearly demonstrate how utilization and day rates were determined for each rig.

2. Tell us the day rate specified in the recent contract for the Atwood Orca with Mubadala Petroleum for which operations are expected to commence in May 2017.
3. We note remarks attributed to you from your fourth quarter 2016 earnings call indicating that for you to have meaningful recovery, you need “to see north of \$60 oil”. Please reconcile this statement with the timing of changes in utilization rates and day rates in the cash flow projections for your rigs as compared to the timing of when you expect oil prices to reach the \$60 level, as described in the notes to the cash flow projections.
4. Information in your investor presentation dated March 28, 2017 indicates that you have a “young, high-specification fleet”. Explain to us how the utilization rates and day rates in your cash flow projections reflect the aging of your fleet over time.
5. We note the utilization rates assumed for your rigs for 2021 and later years. Tell us whether these are the utilization rates that you anticipate for all participants in the markets in which you will be participating, or if you believe you will achieve utilization rates that differ from other market participants. In either case, explain, in detail, the basis for your assumptions.
6. Information in your March 28, 2017 investor presentation suggests that, under certain circumstances, 90% floater utilization may be possible by the end of 2018. In view of this, explain to us the basis for the 2019 utilization rate you have assumed in your projections.
7. Tell us whether, and, if so how, you have considered whether there is an estimated range for the amount of possible future cash flows associated with the future operations of your rigs and whether a probability-weighted approach, which considers the likelihood of the various possible outcomes, is appropriate. See FASB ASC 360-10-35-30.
8. Note (e) to one of the cash flow projection for your jackup rigs explains that a periodic reduction in the utilization rate related to contract changes has been assumed for jackup rigs. However, the cash flow projections for other jack up rigs do not appear to reflect this periodic reduction in utilization rate. Please explain the reasons for this apparent inconsistency.
9. Explain to us where the projected utilization rates for your rigs reflect time necessary for any major repairs, maintenance, overhaul, surveys, upgrades or similar activities.

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10. Explain to us in greater detail the basis for your assumed changes over time in annual operating expenses. As part of your response, provide an analysis detailing the individual costs, e.g. wages and other compensation, repairs and maintenance, etc., included in this line item.

You may contact Joseph Klinko at (202) 551-3824 or me at (202) 551-3489 with any questions.

Sincerely,

/s/ Brad Skinner

Brad Skinner
Senior Assistant Chief Accountant
Office of Natural Resources