



May 20, 2016

Pamela Long
Assistant Director
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3561

**Re: Mitcham Industries, Inc.
Amendment No. 4 to Registration Statement on Form S-1
Filed May 18, 2016
File No. 333-208177**

Ladies and Gentlemen:

Set forth below are the responses of Mitcham Industries, Inc. (the “*Company*”, “*we*,” “*us*” or “*our*”), to comments received from the staff of the Division of Corporation Finance (the “*Staff*”) of the Securities and Exchange Commission (the “*Commission*”) by letter dated May 19, 2016, with respect to Amendment No. 4 to Registration Statement on Form S-1, File No. 333-208177, filed with the Commission on May 18, 2016 (the “*Registration Statement*”).

Concurrently with the submission of this letter, we are filing through EDGAR Amendment No. 5 to the Registration Statement (“*Amendment No. 5*”). For your convenience, we have also hand delivered five copies of this letter, as well as five copies of Amendment No. 5 marked to show all changes made since the fourth amendment to the Registration Statement.

For your convenience, each response is prefaced by the exact text of the Staff’s corresponding comment in bold, italicized text. All references to page numbers and captions correspond to the Amendment No. 4 to Registration Statement unless otherwise specified.

Capitalization, page 23

- 1. We note that you have provided “as adjusted” information to reflect the offering and the application of the net proceeds as described in “use of proceeds.” Given that your use of proceeds information is currently blank, please revise your presentation to provide additional footnote disclosure which quantifies the proceeds from this offering that you have estimated in your presentation. Please also clearly indicate in the footnotes to your capitalization table how you computed each “as adjusted” amount.***

RESPONSE: We acknowledge the Staff’s comment and have revised the Registration Statement to provide additional footnote disclosure quantifying the proceeds from this offering estimated in our presentation. Additionally, we have provided footnote disclosure to our capitalization table indicating how we compute each “as adjusted” amount in the table. Please see page 23.

2. ***Additionally, please reconcile your disclosure in footnote (1) which indicates that as of May 12, 2016, borrowings of approximately \$14.1 million were outstanding, with your disclosure on page 22 which states that as of May 12, 2016 you had approximately \$13.1 million drawn under your credit facility, or revise your filing as appropriate.***

RESPONSE: We acknowledge the Staff's comment and have revised page 23 of the Registration Statement to reflect that we had borrowings of approximately \$13.1 million as of May 12, 2016.

Description of the Series A Preferred Stock, page 27

Conversion Rights, page 31

3. ***We note your disclosure on page 32 that the conversion rights would be subject to shareholder approval of an amendment to your articles of incorporation to increase the number of authorized shares of preferred stock. Please explain why the exercise of conversion rights would necessitate an increase in the number of authorized shares of preferred stock. Alternatively, please revise your disclosure to refer, if true, to the need for an increase in the number of authorized shares of common stock. Please add corresponding disclosure to the risk factor on page 17 that deals with the risk associated with a holder of preferred stock not being able to exercise its conversion rights.***

RESPONSE: We acknowledge the Staff's comment and have revised the Registration Statement to reflect that the exercise of conversion rights will necessitate an increase in the number of authorized shares of the Company's common stock. Additionally, we have added corresponding disclosure to the risk factor that deals with the risk associated with a holder of preferred stock not being able to exercise its conversion rights. Please see pages 17 and 32.

* * * * *

Please direct any questions that you have with respect to the foregoing or if any additional supplemental information is required by the Staff, please contact Gillian A. Hobson of Vinson & Elkins L.L.P. at (713) 758-3747.

Very truly yours,

MITCHAM INDUSTRIES, INC.

By: /s/ Robert P. Capps

Name: Robert P. Capps

Title: Co-Chief Executive Officer and Chief Financial
Officer

Enclosures

cc: Frank Pigott (Staff Attorney)
Melinda Hooker (Staff Accountant)
Dale Welcome (Staff Accountant)
Gillian A. Hobson (Vinson & Elkins L.L.P.)