



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

DIVISION OF  
CORPORATION FINANCE

December 17, 2015

Mail Stop 4631

Via E-Mail

Robert P. Capps  
Co-Chief Executive Officer and  
Chief Financial Officer  
Mitcham Industries, Inc.  
8141 SH 75 South  
P.O. Box 1175  
Huntsville, TX 77342

**Re: Mitcham Industries, Inc.  
Registration Statement on Form S-1  
Filed November 23, 2015  
File No. 333-208177  
Form 10-K for Fiscal Year Ended January 31, 2015  
File No. 000-25142**

Dear Mr. Capps:

We have reviewed your registration statement 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 this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please revise your prospectus to include the United States Securities and Exchange Commission's position on indemnification for Securities Act liabilities. See Item 12A. of Form S-1 and Item 510 of Regulation S-K.
2. Please tell us how you plan to account for the newly issued Series A Cumulative Redeemable Preferred Stock.

Table of Contents, page i

3. Please remove the disclosure in the paragraph below the table of contents that advises investors that information is accurate only as of the date of the prospectus regardless of the time of any sale of the stock. This statement may suggest to investors that you are not responsible for omissions of material facts necessary to make your statements not misleading at the time of sale or contract of sale.

Prospectus Cover Page

4. Please disclose the number of shares to be offered in your next amendment. Please refer to Securities Act Rules Compliance and Disclosure Interpretations Question 227.02.

Equipment Leasing, page 1

5. Your disclosure indicates that you have a number of pieces of equipment which make up your lease pool; and we further note that on your quarterly conference call held on December 9, 2015 that you idle equipment which is not leased. Please revise your filing to provide the percentage of your equipment which is utilized at the end of the periods presented.

Summary Historical Financial Data, page 10

Selected Historical Financial Data, page 23

6. Please revise your tables to provide updated financial information as of, and for, the interim period ended October 31, 2015.

Underwriting, page 42

7. We note your disclosure that the Co-Chief Executive Officer of Ladenburg Thalmann & Co. Inc. is the Chairman of the Board of Directors of Mitcham Industries, Inc. Please revise your prospectus to include similar disclosure under a heading titled, "Certain Relationships and Related Transactions, and Director Independence". See Item 404 of Regulation S-K.

Lock-up Agreements, page 43

8. We note your disclosure regarding a lock-up agreement. Please file such agreement as an exhibit with your next amendment. See Item 601(b)(10) of Regulation S-K.

Item 17. Undertakings, page II-6

9. We note that your registration statement incorporates by reference your most recent annual report on Form 10-K. Please revise your registration statement to include the undertaking required by Item 512(e) of Regulation S-K.

Form 10-K for the year ended January 31, 2015

Item 1. Business, page 2

Intellectual Property, page 9

10. We note that the products designed, manufactured and sold by your Seemap segment utilize significant intellectual property that you have developed or have licensed from others and that in connection with the acquisition of the Digishot and Sleeve Gun product lines, you acquired certain United States and foreign patents related to energy source controllers and other technology. In future filings, please discuss the importance, duration and effect of all such intellectual property.

Critical Accounting Policies, page 42

Long-Lived Assets, page 43

11. We note your disclosure that due to the recent lower level of oil prices, the general slowdown in seismic exploration projects will continue at least through your fiscal year ending January 31, 2016, and that despite the recent decline in the overall business environment, there was no indication of potential impairment of your long-lived assets. To the extent that any of your long-lived assets or asset groups have estimated fair values that are not substantially in excess of the carrying values and to the extent that the asset amount, in the aggregate or individually, could materially impact your operating results or total shareholders' equity, please provide the following information to us and enhance future periodic disclosures to address these items:
- The percentage by which fair value exceeds the carrying value;
  - A description of the assumptions that drive the estimate fair value;
  - A discussion of the uncertainty associated with the key assumptions. For example, to the extent that you have included assumptions in your discounted cash flow model that materially deviates from your historical results, please include a discussion of these assumptions. If you determined that the estimated fair value substantially exceeds the carrying value for all of your long-lived assets or asset groups, please disclose this determination. Please refer to Item 303 of Regulation S-K and Sections 216 and 501.14 of the SEC's Codification of Financial Reporting Policies for guidance.

Goodwill, page 44

12. Please tell us and revise your future periodic filings to disclose whether the estimated fair values of your reporting units substantially exceed their book values. If they do not, please tell us and revise future filings to disclose the percentage by which estimated fair value exceeds book value for each reporting unit.

Income Taxes, page 44

13. We note that you have recognized deferred tax assets of \$11.2 million related to the United States and that you have not provided a valuation allowance against these deferred tax assets. Please help us understand how you determined that these deferred tax assets are realizable in light of the three years of cumulative domestic losses by providing us with a comprehensive analysis of the specific positive and negative evidence management evaluated in arriving at this conclusion. Your analysis should include the weighting of the evidence that is commensurate with the extent to which it is objectively verified. For any tax-planning strategies that you are relying on in your analysis, please ensure that your discussion provides us with a detailed explanation of the nature of, and any uncertainties, risk and assumptions for those strategies. Please refer to ASC 740-10-30-16 through 740-10-30-25, ASC 740-10-55-39 through 740-10-55-48, and ASC 740-10-55-120 through 740-10-55-123 for guidance.

Consolidated Statement of Operations, page F-5

14. We note from your disclosure on page F-9 that you generate revenues from service agreements. Please tell us what consideration you gave to separately disclosing revenues and costs of revenues for services separately on the face of the income statement. Please refer to Rule 5-03(b)1 of Regulation S-X.

Notes to the Consolidated Financial Statements

1. Organization and Summary of Significant Accounting Policies, page F-9

Seismic Equipment Lease Pool, page F-10

15. Please revise future filings to disclose that you continue to depreciate your rental equipment assets when they are not on lease.

Change in Functional Currency, page F-12

16. Please tell us and revise future filings to provide a more comprehensive discussion regarding the changes in the economic environment for the entities which changed their functional currency to the U.S. Dollar during 2014. Your discussion should include your consideration of each factor outlined in ASC 830-10-55-5 for each entity.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Robert P. Capps  
Mitcham Industries, Inc.  
December 17, 2015  
Page 6

You may contact Melinda Hooker (Staff Accountant) at 202-551-3732 or Dale Welcome (Staff Accountant) at 202-551-3865 if you have questions regarding comments on the financial statements and related matters. Please contact Frank Pigott (Staff Attorney) at 202-551-3570 or me at 202-551-3729 with any other questions.

Sincerely,

/s/ Craig Slivka, for

Pamela Long  
Assistant Director  
Office of Manufacturing and  
Construction

cc: Via E-Mail  
Gillian A. Hobson  
Vinson & Elkins, L.L.P.