

MITCHAM INDUSTRIES, INC.  
P.O. Box 1175  
HUNTSVILLE, TEXAS 77342-1175

June 1, 2011

Jay Ingram  
Legal Branch Chief  
Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, NE  
Washington, D.C. 20549-7010  
Attention: Sherry Haywood

**Re: Mitcham Industries, Inc.  
Amendment No. 1 to Registration Statement on Form S-3  
Filed April 25, 2011  
File No. 333-172935**

Dear Mr. Ingram:

Set forth below are the Company's responses to the comments contained in the letter from the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") dated May 6, 2011.

For your convenience, the exact text of the comments provided by the Staff has been included in bold face type preceding each response in the order presented in the comment letter.

**General**

**1. Please be advised that you must either file your definitive proxy statement or amend your Form 10-K for the fiscal year ended January 31, 2011 to include Part III information and clear any outstanding Staff comments on your Form 10-K and proxy statement before you may request to accelerate the effectiveness of your registration statement. See Question 123.01 of the Securities Act Forms Compliance and Disclosure Interpretations which is available on our website and may be found at <http://www.sec.gov/divisions/corpfin/guidance/safinterp.htm>.**

**Response:** The Company respectfully acknowledges the Staff's comment and confirms that it filed its definitive proxy statement on May 31, 2011.

Should the Staff have any questions or comments, please contact the undersigned at (936) 291-2277 or Gillian Hobson of Vinson & Elkins at 713-758-3747.

Very truly yours,

MITCHAM INDUSTRIES, INC.

By: /s/ Billy F. Mitcham, Jr.

Billy F. Mitcham, Jr.  
President and Chief Executive Officer

cc: Gillian A. Hobson (Via facsimile 713.615.5794)  
Vinson & Elkins L.L.P.