

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

June 1, 2011

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3561
Attention: Ms. Sherry Haywood

**Re: Mitcham Industries, Inc. (the “Registrant”)
Request for Acceleration of Effectiveness
Registration Statement on Form S-3 (File No. 333-172935)
(the “Registration Statement”)**

Ladies and Gentlemen:

Pursuant to Rule 461 of the rules and regulations promulgated under the Securities Act of 1933, the Registrant hereby requests that the effectiveness of the above-captioned Registration Statement be accelerated so that the Registration Statement will become effective June 3, 2011, at 3:00 p.m. Eastern time, or as soon thereafter as practicable.

The Registrant hereby acknowledges that the disclosure in the Registration Statement is the responsibility of the Registrant. The Registrant hereby further acknowledges that:

- should the Securities and Exchange Commission (the “**Commission**”) or the staff, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and
- the Registrant 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.

Should the Staff have any questions or comments, please call Gillian A. Hobson of Vinson & Elkins L.L.P., the Registrant’s outside legal counsel, at (713) 758-3747 with any questions regarding this request for acceleration.

Sincerely,

MITCHAM INDUSTRIES, INC.

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

Name: Billy F. Mitcham, Jr.

Title: President and Chief Executive Officer

cc: Gillian A. Hobson, Esq.
Vinson & Elkins L.L.P.