File pursuant to Rule 433 Registration Statement No. 333-172935 June 17, 2011

## Mitcham Industries, Inc.

## Pricing Term Sheet — June 17, 2011

## 2,000,000 Shares of Common Stock

This free writing prospectus relates only to the securities described below and should be read together with the preliminary prospectus supplement dated June 16, 2011 and the prospectus dated June 3, 2011 relating to these securities.

**Offering price:** \$14.50 per share of common stock

**Option to purchase additional shares:** 300,000 additional shares of common stock (30 days)

**Proceeds, net of underwriting discounts and expenses:** \$27,170,000 (excluding option to purchase additional shares of common stock) or

\$31,283,000 (including exercise of option to purchase additional shares of common

stock)

Trade Date: June 17, 2011

Settlement Date: June 22, 2011

Issuer Symbol: MIND

Exchange: Nasdaq Global Market

**CUSIP:** 606501104

Underwriters: Global Hunter Securities, LLC

Ladenburg Thalmann & Co. Inc.

Certain of the underwriters and their affiliates may from time to time in the future provide to us and our affiliates certain commercial banking, financial advisory, investment banking and other services in the ordinary course of their business, for which they would receive customary fees and commissions. In addition, Peter H. Blum, who serves as the Non-Executive Chairman of our Board of Directors, is also Vice Chairman and Head of Capital Markets of Ladenburg Thalmann. From time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Mitcham Industries, Inc. has filed a registration statement (including a prospectus) on Form S-3 with the Securities and Exchange Commission (SEC) for the offering to which this communication relates. Before you invest, you should read the prospectus supplement to the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about Mitcham Industries, Inc. and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, the issuer, the underwriters or any dealer participating in the offering will arrange to send you the prospectus and the related prospectus supplement if you request them by calling Global Hunter Securities at (646) 264-5600 or by calling Ladenburg Thalmann at (212) 409-2000.