



THE EXPLORATION EQUIPMENT SUPPLIER

February 15, 2011

VIA EDGAR AND FACSIMILE

Mr. John Cash
Branch Chief
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, D.C. 20549

**Re: Mitcham Industries, Inc.
Form 10-K for the year ended January 31, 2010 filed April 19, 2010
Form 10-Q for the quarter ended October 31, 2010 filed December 8, 2010
File No. 0-25142**

Dear Mr. Cash:

On February 8, 2011, Mitcham Industries, Inc. (the "Company") received the comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") to the Company's response to the Staff's letter dated January 19, 2011, all related to Form 10-K for the fiscal year ended January 31, 2010 (the "2011 Form 10-K") and Form 10-Q for the quarter ended October 31, 2010 (the "Form 10-Q").

The following responses are for the Staff's review. For your convenience we have repeated each comment of the Staff exactly as given in the Staff's comment letter.

Form 10-K for the year ended January 31, 2010

Critical Accounting Policies

Goodwill and Other Intangible Assets, page 34

- 1. We note your response to comment four of our letter dated January 19, 2011. You indicate that you have identified your Seemap reportable segment as your reporting unit. However, as noted on page one of your Form 10-K, your Seemap reportable segment is**

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comprised of two operating segments, Seamap UK and Seamap Singapore. As such, it is unclear to us how you have appropriately identified your reporting units pursuant to ASC Topic 350-20-35. Refer also to Topic 350-20-35-33 through 35-46. In this regard, we note that a reporting unit is an operating segment or one level below an operating segment (also known as a component). Please reassess the appropriateness of the level at which you assessed goodwill for impairment.

We continue to believe that our Seamap reportable segment is the reporting unit. While the Seamap segment is comprised of two legal entities, it is managed as a single operation and discrete financial information for each of the entities is not regularly reviewed by management of the segment. Discrete financial information for each of the entities is prepared for tax and local statutory reporting purposes. ASC Topics 350-20-35-36 and 350-20-35-37 provide that a reportable segment may be a reporting unit, even if that segment is comprised of multiple components. Furthermore, ASC topic 350-20-35-35 provides that two or more components of an operating segment may be aggregated and deemed a single reporting unit if the components have similar economic characteristics. We believe that the components of Seamap do have similar economic characteristics in light of the guidance provided in ASC Topic 280-10-50-11. In that regard we note the following:

- Each of the components sells the same products.
- The products for each are produced in a common location.
- The nature of the business of each component's customers is identical, other than geographic location in some cases.
- Each component distributes its products through a common direct sales staff.
- Neither component is subject to regulatory requirements, other than local tax, licensing and financial reporting requirements common to all business in those countries.

Notes to the Consolidated Financial Statements

11. Income Taxes, page F -15

- 2. Please revise the disclosures you have proposed in response to prior comment five of our letter dated January 19, 2011 to clarify that you have recorded a deferred tax asset related to the Canadian net operating loss which has been offset [by] your liability related to uncertain tax positions.**

In future filings we will revise the disclosures concerning our Canadian net operating losses as follows:

“...The Company had Canadian net operating loss carryforwards of approximately \$4,909,000 (Canadian \$5,228,000) as of January 31, 2010. The Canadian net operating losses will begin to expire in 2011. The deferred tax asset related to this item has been offset by our tax liability for uncertain tax positions as the deductions giving rise to the net operating loss carryforward are subject to an uncertain tax position.

...The Company's Canadian income tax returns for the years ended January 31, 2004, 2005 and 2006 have been examined by Canadian tax authorities. Assessments for those years and for the effect of certain matters in subsequent years totaling approximately \$7,400,000 have been issued. The issues involved relate primarily to the deductibility of depreciation charges and whether those deductions should be taken in Canada or in the United States. Accordingly, the Company has filed requests for competent

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authority assistance with the Canadian Revenue Agency (“CRA”) and with the IRS seeking to avoid potential double taxation. In addition, the Company has filed a protest with the CRA and the Province of Alberta. In connection with this protest the Company was required to make a prepayment of approximately \$2,600,000 against the assessment. These items are contemplated in the Company’s tax liability for uncertain tax positions.”

Form 10-Q for the quarter ended October 31, 2010

Notes to the Condensed Consolidated Financial Statements

4. Acquisitions, page 4

- 3. Please include the information you have provided to us in response to prior comment seven of our letter dated January 19, 2011 in your future disclosures.**

In future filings we will include the information provided to the Staff in our response to prior comment seven of the letter dated January 19, 2011.

6. Balance Sheet, page 6

- 4. We have read your response to comment eight of our letter dated January 19, 2011. Please specifically tell us whether you performed an impairment test of the assets you were repossessing at October 31, 2010. If not, please tell us why no such test was necessary. Please also tell us whether you have recorded or will need to record any additional impairment upon the repossession of those assets in December 2010. If so, please quantify the impairment charge and address why no such impairment was required as of October 31, 2010. Additionally, please provide to us your proposed disclosures for your Form 10-K for the year ended January 31, 2011.**

An impairment test of the assets themselves was not performed as of October 31, 2010. These assets are essentially identical to other assets in our lease pool. As of October 31, 2011, there had been no events or developments which would indicate an impairment of any of our lease pool assets had occurred. However, we did as of October 31, 2010 assess the carrying value of the defaulted contract receivable versus the fair value of the equipment less the estimated costs to repossess the equipment. It was determined that as of October 31, 2011 no additional provision related to this assessment was necessary. In prior periods we had recorded impairments totaling approximately \$1,487,000 related to this matter. These impairments were recorded as a provision for doubtful accounts.

As stated in our response to you of February 1, 2011, we are in the process of completing the accounting for the repossession. An inventory of the equipment repossessed, which was completed in January, indicates that equipment with a value of approximately \$645,000 was not among the equipment repossessed and is missing. We have filed a claim in the amount of approximately \$1,300,000 with our insurance carrier related to this missing equipment and certain costs that we incurred in repossessing the equipment. The disposition of this claim is still pending. Accordingly, the amount of insurance recovery, if any, is uncertain. Furthermore, we

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now anticipate that there will be a distribution from the bankruptcy estate of the customer who defaulted under the contract. The amount of such distribution is uncertain.

Accordingly, we expect to record an additional provision of up to \$645,000 in the three months ended January 31, 2011. Should the amount of the proceeds from our insurance carrier or the amount of the distribution from the bankruptcy estate be determined prior to the filing of our Form 10-K for the year ended January 31, 2011, the amount of the provision may be reduced by those amounts. This additional provision was not required as of October 31, 2010 because as of that date, and through the date we filed our Form 10-Q for the quarter ended October 31, 2010, it was not known that certain of the equipment was missing.

In our Form 10-K for the year ended January 31, 2011 we will make the following disclosures, subject to modification based upon facts and circumstances that arise prior to the filing of the Form 10-K:

“During the three months ended January 31, 2011, the Company completed the repossession of the equipment that had been pledged as collateral for the defaulted contract obligation and added the equipment to its seismic equipment lease pool. The equipment was added to the seismic equipment lease pool based on its estimated fair value. Upon inventory of the repossessed equipment, it was determined that equipment with an estimated fair value of approximately \$645,000 was missing. Accordingly, the carrying value of the contract obligation exceeded the estimated fair value of the equipment actually repossessed by approximately \$645,000 and the Company has recorded a provision for doubtful accounts of this amount in the three months ended January 31, 2011. The Company has filed a claim in the amount of approximately \$1,300,000 with its insurance carrier related to the missing equipment and certain costs incurred in repossessing the equipment. Additionally, the Company understands that the bankruptcy estate of the defaulting customer anticipates making distributions to creditors of the estate, including the Company. The amounts to be recovered from these claims, if any, are uncertain and therefore have not been taken into consideration in calculating the additional provision for doubtful accounts.”

— or —

“During the three months ended January 31, 2011, the Company completed the repossession of the equipment that had been pledged as collateral for the defaulted contract obligation and added the equipment to its seismic equipment lease pool. The equipment was added to the seismic equipment lease pool based on its estimated fair value. Upon inventory of the repossessed equipment, it was determined that equipment with an estimated fair value of approximately \$645,000 was missing. Accordingly, the carrying value of the contract obligation exceeded the estimated fair value of the equipment actually repossessed by approximately \$645,000. The Company has filed a claim with its insurance carrier related to the missing equipment and certain costs incurred in repossessing the equipment. The insurance company allowed the claim in the amount of \$[], which amount was paid in [March], 2011. [In March 2011, the bankruptcy estate of the defaulting customer made a distribution to the Company in the amount of \$[]]. Accordingly, as of January 31, 2011, the Company has recorded an additional provision for doubtful accounts related to this matter in the amount of \$[].”

Should the Staff have any questions or comments, please contact the undersigned at 281.353.4475.

Very truly yours,

MITCHAM INDUSTRIES, INC.

By:

/s/ Robert P. Capps

Robert P. Capps

Executive Vice President and Chief Financial Officer

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