



DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

December 12, 2007

By Facsimile and U.S. Mail

Mr. Douglas J. Rowe  
President and Chief Executive Officer  
Birch Mountain Resources Ltd  
Suite 300, 250 - 6th Avenue S.W.  
Calgary, Alberta, Canada T2P 3H7

**Re: Birch Mountain Resources Ltd  
Form 20-F for the Fiscal Year Ended December 31, 2006  
Filed April 2, 2007  
Form 20-F/A for the Fiscal Year Ended December 31, 2006  
Filed April 4, 2007  
File No. 001-32475**

Dear Mr. Rowe:

We have reviewed your Form 20-F for the fiscal year ended December 31, 2006 and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 20-F/A for the Fiscal Year Ended December 31, 2006

Management's Report on Internal Control Over Financial Reporting

1. Please expand your disclosure to clearly state management's conclusion with respect to the assessment of your internal controls over financial reporting in your report on internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

2. We note that Ernst & Young LLP audited your financial statements as at and for the years ended December 31, 2006 and December 31, 2005. We further note that the financial statements at December 31, 2004 and for the year then ended were audited by another auditor whose audit report is not included in your Form 20-F for the year ended December 31, 2006. Please amend your filing to include such audit report.

Note 15. Convertible Debentures

3. Please tell us whether your conventional convertible notes include beneficial conversion features under US GAAP. In doing so, tell us the market price of your common stock on the dates of issuance of the convertible notes and how you determined the market prices. Refer to EITF 98-5 for US GAAP.

Note 27. Material Differences Between Canadian and United States Generally Accepted Accounting Principles

4. We note your disclosure that stripping costs were capitalized up to May 24, 2006 under US GAAP. Given the absence of proven and probable reserves in accordance with SEC Industry Guide 7 prior to May 24, 2006, please clarify why you believe that these costs represent development costs which have probable future economic benefit under US GAAP. Please revise or advise.

Engineering Comments

General

5. Please insert a small-scale map showing the location and access to each material property, as required by Instruction 1(a) to Item 4.D of Form 20-F. Please note that SEC's EDGAR program now accepts Adobe PDF files and digital maps, so please include these maps in any amendments that are uploaded to EDGAR. It is relatively easy to include automatic links at the appropriate locations within the document to GIF or JPEG files, which will allow figures and diagrams to appear in the right location when the document is viewed on the Internet. For more

information, please consult the EDGAR manual, and if additional assistance is required, please call Filer Support at 202-551-8900. We believe the guidance in Instruction 1(a) to Item 4.D of Form 20-F would generally require maps and drawings to comply with the following features:

- A legend or explanation showing, by means of pattern or symbol, every pattern or symbol used on the map or drawing.
- A graphical bar scale should be included. Additional representations of scale such as "one inch equals one mile" may be utilized provided the original scale of the map has not been altered.
- A north arrow.
- An index map showing where the property is situated in relationship to the state or province, etc., in which it was located.
- A title of the map or drawing, and the date on which it was drawn.
- In the event interpretive data is submitted in conjunction with any map, the identity of the geologist or engineer that prepared such data.

Any drawing should be simple enough or of sufficiently large scale to clearly show all features on the drawing.

6. Supplementally clarify whether the Muskeg Valley Quarry reserves are included in your Hammerstone mineral reserve estimate and if not include in your filing.
7. Please include your annual mine production tonnage and separately your annual sales tonnage within the filing. Supplementally provide your sales unit price by major product.

#### Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under

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the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact John Cannarella at (202) 551-3337 if you have questions regarding comments on the financial statements and related matters. You may contact Ken Schuler, Mining Engineer, at (202) 551-3718 with questions about engineering comments. Please contact me at (202) 551-3683 with any other questions.

Sincerely,

Jill Davis  
Branch Chief