



DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
100 F STREET, N.E.  
WASHINGTON, D.C. 20549-7010

January 29, 2008

Mr. Jason S. Weber  
President and Chief Executive Officer  
Rimfire Minerals Corporation  
700-700 West Pender Street  
Vancouver, BC V6C 1G8, Canada

**Re: Rimfire Minerals Corporation**  
**Form 20-F for Fiscal Year Ended January 31, 2007**  
**Filed May 11, 2007**  
**File No. 000-31100**

Dear Mr. Weber:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. 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 Filed May 11, 2007

General

1. We note that your EDGAR filing does not include page numbers. Please ensure that you paginate future filings.

Item 4: Information on the Corporation – Property, Plants and Equipment

2. 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.

Item 7: Major Shareholders

3. Please revise your table of major shareholders to either include footnote "[4]" which was referenced for 95,000 options held by Mr. Awmack. Alternatively, if the footnote reference was erroneously included, please remove the reference. Also, please consider revising the title to the first column of the table to remove reference to "Position with Corporation" as this table should contain beneficial owners regardless of their affiliation or position with the company. However, if one of the shareholders listed in the table is affiliated with the company, disclosure of the affiliation should be made. Refer to Item 7(A) of Form 20-F.

Item 11: Quantitative And Qualitative Disclosure About Market Risk

4. Please expand your disclosure to identify and categorize your market risk sensitive instruments as those held for trading purposes or other than trading purposes. Additionally, please conform your quantitative disclosures to one of the three alternative formats: tabular format, sensitivity analysis, or value at risk. Disclosures should include material limitations that cause the information not to fully reflect the market risk exposures as well as summarized market risk information for the preceding year. Refer to Items 11(a)(1), 11(a)(2) and 11(a)(3) of Form 20-F.

Item 15 Controls and Procedures

5. You disclose that your “officers have concluded that, as of such date, the Corporation’s disclosure controls and procedures were effective to ensure that that material information relating to the Corporation was made known to them by others in the Corporation during the period in which the Form 20-F was being prepared.” Item 15 of Form 20-F requires you to disclose your officers’ conclusions regarding the effectiveness of your disclosure controls and procedures as that term is defined in Rule 13a-15(e) of the Exchange Act. The definition in Rule 13a-15(e) is more comprehensive than that included in your disclosure. Specifically, the term disclosure controls and procedures also includes controls that are “...designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms.” Your officers’ conclusions do not state whether your disclosure controls and procedures are effective at accomplishing these items. Please revise your officers’ conclusions to state whether your disclosure controls and procedures are effective at accomplishing all of the items included within the definition of disclosure controls and procedures as defined in Rule 13a-15(e) of the Exchange Act.
6. We also note that your officers’ conclusions refer to the period in which the Form 20-F was being prepared. Please disclose the conclusions of your principal executive and principal financial officers regarding the effectiveness of your disclosure controls and procedures as of the end of the period covered by the report. Refer to Item 15(a) of Form 20-F.
7. You state that there were no “significant changes” in your internal control over financial reporting. Please note that Item 15(d) requires that you disclose any change in your internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during the fourth fiscal quarter that has “materially affected,

or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting." See also paragraph 4(d) of Exhibit 12 of Form 20-F. Please review your disclosure and revise as appropriate.

Item 17: Financial Statements

Consolidated Statements of Operations

8. Please consider revising your presentation of losses in your statement of operations to format losses as either negative or bracketed "( )" so as to clarify their loss position. Items to consider for a change in format include operating and non-operating losses, losses before income tax, net losses and losses per share. Similar format changes should be considered for other financial statements, footnotes, schedules and summary financial data that refer to those losses.

Note 1: Significant Accounting Policies – Flow-Through Shares

9. We note your recognition of the future income tax liabilities related to your issuance of flow-through shares as a share issue cost under Canadian GAAP. Please explain why the denounced tax benefits were not reflected as a component of net income in your statement of operations. Refer to issue number two of CICA Emerging Issues Committee Abstract No. 146, "Flow-Through Shares."

Note 12 – Differences between Generally Accepted Accounting Principles in Canada and the United States

10. Please expand your disclosure of differences between US and Canadian GAAP to include the requirements of Item 17 of Form 20F, including the following:
  - a discussion of material variations in accounting principles, practices and methods used in preparing the financial statements between Canadian and U.S. GAAP;
  - a quantified description of balance sheet differences under Canadian GAAP in comparison to U.S. GAAP;
  - a reconciliation of net income from Canadian to U.S. GAAP that quantifies and describes each significant difference, and;
  - disclosure of basic and diluted EPS calculated in accordance with U.S. GAAP, if materially different from Canadian GAAP.

Additionally, if there are any differences between Canadian GAAP and U.S. GAAP amounts that affect the Selected Financial Data, please disclose these

differences as required by paragraph 2 of the Instructions to Item 3.A of Form 20-F.

#### Statement of Cash Flows

11. Please clarify whether your captions for mineral property operation items represent gross cash receipts and gross cash payments as referenced within the context of reporting cash flows under the direct method of Section 1540.21 of the CICA Accounting Handbook. If so, please revise your captions to clarify that these line items represent gross cash receipts or payments. If the captions and items do not reflect gross cash flows under the direct method, please present your statement of cash flows using either the direct or indirect method. Refer to Section 1540.20 of the CICA Accounting Handbook.
12. Please expand your US GAAP reconciliation disclosure to include a quantified description of the material differences between your statement of cash flows and one prepared in accordance with U.S. GAAP, or revise your statement of cash flows to conform to SFAS 95. Refer to Item 17(a)(2)(iii) of Form 20-F.

#### Mineral Property Interests

13. We note that your Canadian GAAP accounting policy for mineral property interests indicates that you expense the costs associated with acquiring mineral property interests. Please compare your Canadian GAAP accounting policy with paragraph 9 of EITF 04-2 for US GAAP. If you determine that acquisition costs should have been capitalized under US GAAP, expand your disclosure to identify this as a difference between Canadian and US GAAP.

#### Foreign Currency Translation

14. If after considering the prior comment you determine that acquisition costs should be capitalized under Canadian GAAP and/or U.S. GAAP, please account for and disclose the affect of foreign currency translation adjustments and your cumulative translation adjustment for foreign currency denominated assets in subsidiaries where the functional currency is not the Canadian Dollar. Refer to paragraphs 12 thru 14 and 30 thru 32 of SFAS 52.

#### Available-for-Sale Marketable Securities

15. We note your adoption of fair market valuation for available-for-sale marketable securities pursuant to the accounting recommendation of the CICA. Pursuant to paragraph 12 of SFAS 115, available-for-sale investments should be measured at fair value in the statement of financial position with unrealized gains/losses

reported in other comprehensive income until realized. SFAS 115 was effective for fiscal years beginning after December 15, 1993. Please explain why you have not reported this as a reconciling difference between Canadian and US GAAP for all periods prior to your adoption of the CICA accounting recommendation. Refer to Items 17(c)(2)(i), 17(c)(2)(ii) and 17(c)(2)(iii) of Form 20-F.

#### Financial Statement Schedules

16. Please include financial statement Schedule II: Valuation and Qualifying Accounts in your filing to the extent it is applicable to your income tax asset valuation allowance, and any other material valuation and qualifying accounts. The schedules shall be examined by the independent accountant if the related financial statements are so examined. Refer to Item 17(a) of Form 20-F and Rules 5-04 and 12-09 of Regulation S-X.

#### Item 19 Exhibits - Computation of Earnings Per Share

17. Please include, as an exhibit, the computation of your earnings per share amounts in reasonable detail, including adjustments made to earnings and/or basic and diluted shares outstanding within the computation. Refer to Item 19 and Instructions as to Exhibits (6) of Form 20-F.

#### Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and 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 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:

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- 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 James Giugliano at (202) 551-3319 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3683 with any other questions.

Sincerely,

Jill Davis  
Branch Chief