



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

January 29, 2010

Mr. Douglas Newby
Chief Financial Officer
PolyMet Mining Corp.
1177 West Hastings Street Suite 1003
Vancouver, B.C. Canada V6E 2K3

Re: PolyMet Mining Corp
Form 20-F for the Fiscal Year Ended January 31, 2009
Filed April 30, 2009
File No. 001-32929

Dear Mr. Newby:

We have reviewed your filing and have the following 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 for the Fiscal Year Ended January 31, 2009

Year Ended January 31, 2009, page 30

1. You indicate in the eighth paragraph that "the negotiation of a convertible debenture for \$50 million in 2008 will be sufficient to meet [your] obligations until [you] are able to raise capital to construct [your] mine." Either here or in some other appropriate location in the filing, describe in reasonable detail those obligations and quantify the amount of capital that you anticipate that you will have to raise to construct the mine.

Trend Information, page 31

2. We note your disclosure under Items 5.C and 5.D, for example, that the information required by Form 20-F is “not applicable”. In future filings, please limit the use of “not applicable” to indicate only Form 20-F item requirements that do not apply to the Company, rather than using “not applicable” to indicate that the Company has no disclosure to report.

Item 6.A Directors and Senior Management, page 34

3. We note the sentence regarding Mr. Forrest’s directorship of AB Airlines that follows the biographical information provided for Mr. Swearingen. In future filings, please ensure that the biographical information provided for each individual is properly located.

Controls and Procedures, page 52

4. We note that you concluded that your disclosure controls and procedures were effective as of January 31, 2009. Considering the material weaknesses identified in Management’s Annual Report on Internal Control over Financial Reporting under this heading, please tell us how you have reached this conclusion. Please include details sufficient to understand how you have determined that these material weaknesses are unrelated to the financial information required to be included in your filings, if that is your view.

Financial Statements, page F-1

Notes to Consolidated Financial Statements, page F-9

Note 4. Mineral Property, Plant and Equipment, page F-16

5. Reconcile for us the change in the net book value of Mineral Property, Plant and Equipment from January 31, 2008 to January 31, 2009 per this footnote to the amount disclosed under the line item “Purchase of mineral property, plant and equipment” in the investing section of your cash flow statement for the year ended January 31, 2009.
6. Provide us a reasonably detailed analysis of the items making up the increase in mineral property, plant and equipment from January 31, 2008 to January 31, 2009.

Note 7. Convertible Debt, page F-19

7. You disclose that you incurred \$636,000 in financing costs related to the issuance of convertible debt and that you have recorded this amount against the debt. Under US GAAP, these costs are capitalized and recorded as a separate asset to be amortized using the effective interest method over the estimated term of the debt. Please tell us why you have not included this as a reconciling item in your disclosures of differences between Canadian and United States generally accepted accounting principles at Note 16 to the financial statements.

Note 8. Share Capital, page F-20

8. We note your disclosure explaining that on October 10, 2008, you agreed to exchange 8,020,000 warrants issued to participants in the April 2007 private placement for two sets of 4,010,000 warrants with modified exercise provisions. We also note that your disclosure indicates that you have calculated the incremental increase in the fair value of the warrants due to the warrant exchange to be \$544,000 and have recorded this amount within equity as a debit to share capital and credit to contributed surplus. As it appears that additional value has been conveyed that was not contemplated in the original April 2007 private placement, please tell us why this event did not trigger expense recognition for purposes of determining your US GAAP results.

Note 14. Contingent Liabilities and Commitments, page F-31

9. We note the disclosure under (a)(iv) indicating that you accrued amounts related to Milestone 4 during the year ended January 31, 2009. However, based on disclosure under (a)(iii), it appears that the triggering event for Milestone has not been reached yet. In view of this, explain your basis for accruing this amount.
10. Explain to us your basis for capitalizing the entire amount of the accrual under Milestone 4 to mineral property, plant and equipment. As part of your response, identify, and describe the role of, each party receiving bonus shares under Milestone 4.

Engineering Comments

Mineral Resources and Reserves, page 20

11. We note you disclose an increase in proven and probable reserves. Please forward to our engineer as supplemental information your May 2008 DFS Update that establishes the legal, technical, and economic feasibility of your materials designated as reserves, as required by Section C of Industry Guide 7 or a 33 act

filing pursuant to Rule 418(a) and (b) of Regulation C *or for a 34 Act filing*, Rule 12b-4 of the Exchange Act. The information requested includes, but is not limited to:

- Property and geologic maps
- Description of your sampling and assaying procedures
- Drill-hole maps showing drill intercepts
- Representative geologic cross-sections and drill logs
- Description and examples of your cut-off calculation procedures
- Cutoff grades used for each category of your reserves and resources
- Justifications for the drill hole spacing used to classify and segregate proven and probable reserves
- A detailed description of your procedures for estimating reserves
- Copies of any pertinent engineering or geological reports, and executive summaries of feasibility studies or mine plans which including the cash flow analyses
- A detailed permitting and government approval schedule for the project, particularly identifying the primary environmental or construction approval(s) and your current location on that schedule.

To minimize the transfer of paper, please provide the requested information on a CD, formatted as Adobe PDF files and provide the name and phone number for a technical person our engineer may call, if he has technical questions about your reserves.

In the event your company desires the return of this supplemental material, please make a written request with the letter of transmittal. Please note that you may request the return of this information pursuant to the provisions of Rule 418(b).

If there are any questions concerning the above request, please phone Mr. John E. Coleman, Mining Engineer at (202) 551-3610.

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 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.

Mr. Douglas Newby
PolyMet Mining Corp.
January 29, 2010
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You may contact Craig Arakawa at (202) 551-3650, or Brad Skinner, Senior Assistant Chief Accountant, at (202) 551-3489 if you have questions regarding comments on the financial statements and related matters. You may contact John Coleman, Mining Engineer, at (202) 551-3610 with questions about engineering comments. Please contact Tracey McNeil at (202) 551-3392 or me at (202) 551-3745 with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director