

CERTIFICATIONS

In connection with the annual report of Northern Orion Resources Inc. (the "Company") on Form 40-F for the year ended December 31, 2006, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David W. Cohen, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ David W. Cohen

Name: David W. Cohen

Title: Chief Executive Officer
(principal executive officer)

DATE: March 30, 2007
