



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3030

May 18, 2009

Glenn Muir  
Chief Financial Officer  
Hologic, Inc.  
35 Crosby Drive  
Bedford, MA 01730

**Re: Hologic, Inc.**  
**Form 10-K for the Fiscal-Year ended September 27, 2008**  
**Filed November 26, 2008**  
**File No. 000-18281**

Dear Mr. Muir:

We have completed our review of your Form 10-K and related filings and do not, at this time, have any further comments.

Sincerely,

Angela Crane  
Branch Chief