



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

October 26, 2009

Via Facsimile and U.S. Mail

Kevin M. King
Director, President and Chief Executive Officer
Affymetrix, Inc.
3420 Central Expressway
Santa Clara, California 95051

Re: Affymetrix, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed March 2, 2009
Form 10-K/A for the Fiscal Year Ended December 31, 2008
Filed April 30, 2009
File No. 000-28218

Dear Mr. King:

We have completed our review of your Form 10-K for the fiscal year ended December 31, 2008 and related filings and do not, at this time, have any further comments.

Please contact Joe McCann at (202) 551-6262 or me at (202) 551-3625 with any questions.

Sincerely,

Mary Beth Breslin
Senior Attorney