UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

Current Report Pursuant

to Section 13 or 15(d) of the

Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 13, 2006

HOLOGIC, INC.

(Exact Name of Registrant as Specified in Its Charter)

DELAWARE

(State or Other Jurisdiction of Incorporation)

0-18281 (Commission File Number) 04-2902449 (I.R.S. Employer Identification No.)

35 Crosby Street, Bedford, MA (Address of Principal Executive Offices)

01730 (Zip Code)

(781) 999-7300

(Registrant s Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 2.01 COMPLETION OF ACQUISITION OR DISPOSITION OF ASSETS

Completion of Acquisition of R2 Technology, Inc.

On July 13, 2006, Hologic, Inc. (<u>Hologic</u>) completed the acquisition of R2 Technology, Inc. (R2) pursuant to an Agreement and Plan of Merger dated as of April 24, 2006, as amended by Amendment No. 1 thereto dated as of June 30, 2006 (as amended, the <u>Merger Agreement</u>). The Merger Agreement provided for a business combination whereby Hydrogen Acquisition, Inc. (<u>Merger Sub</u>), a Delaware corporation and a wholly owned subsidiary of Hologic, merged with and into R2 (the <u>Merger</u>). As a result of the Merger, the separate corporate existence of Merger Sub ceased and R2 became a wholly-owned subsidiary of Hologic.

The aggregate purchase price paid by Hologic to the security holders of R2 pursuant to the Merger Agreement was approximately \$220.0 million which amount was paid by Hologic entirely in shares of Hologic's common stock (other than cash in lieu of fractional shares) valued at \$47.505 per share (the Merger Shares). The value of the Merger Shares was determined based on the average closing price of Hologic's common stock as quoted on the Nasdaq National Market for the ten trading days ending July 11, 2006. The purchase price is payable in approximately 4,630,300 shares of common stock. Additionally, Hologic estimates that it will pay approximately \$12,000 in cash in lieu of issuing fractional shares of its common stock. The actual number of shares of common stock that Hologic will issue in the transaction will be subject to reduction to reflect certain tax withholding obligations. Additionally, approximately 10% of the shares to be issued will be held in escrow and subject to forfeiture to satisfy R2 stockholder indemnification obligations, if any.

On July 13, 2006, Hologic issued a press release announcing the completion of the acquisition of R2. A copy of the press release is attached hereto as Exhibit 99.1.

R2, located in Sunnyvale, California, is a recognized leader in the development and commercialization of computer-aided detection (CAD), an innovative technology that assists radiologists in the early detection of breast cancer. R2 Technology pioneered the use of CAD for mammography in 1998 when the ImageChecker system became the first CAD system approved by the FDA for screening mammography. The ImageChecker CAD system was also the first system approved for use with digital mammography. Prior to the Merger, Hologic was a customer of R2.

The above discussion of the Merger Agreement is qualified in its entirety by reference to the text of the agreement, a copy of which has been previously filed as Exhibit 2.02 to Hologic s Quarterly Report on Form 10-Q for the quarterly period ended March 25, 2006 as filed on May 4, 2006 and is incorporated herein by reference.

ITEM 3.02 UNREGISTERED SALES OF EQUITY SECURITIES

As more fully described above, on July 13, 2006, Hologic issued an aggregate of approximately 4,630,300 shares of common stock to security holders of R2 in order to consummate the Merger. The actual number of shares of common stock that Hologic will issue in the transaction will be subject to reduction to reflect certain tax withholding obligations. The issuance of the Hologic shares of common stock to the R2 security holders in connection with the Merger was exempt from registration under Section 3(a)(10) of the Securities Act of 1933, as amended, pursuant to approval from the Commissioner of the California Department of Corporations of the fairness of the terms and conditions of the Merger and the issuance of the Merger Shares which approval was granted by the Commissioner of the California Department of Corporations on June 20, 2006.

ITEM 9.01 FINANCIAL STATEMENTS AND EXHIBITS.

(a) Financial Statement of Business Acquired

The required Financial Statements have previously been filed by Hologic as Exhibits 99.3 and 99.4 to Hologic s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 30, 2006. Exhibits 99.3 and 99.4 to Hologic s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 30, 2006 are incorporated herein by reference.

(b) Pro Forma Financial Information

The required Pro Forma Financial Statements have previously been filed by Hologic as Exhibit 99.5 to Hologic s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 30, 2006. Exhibit 99.5 to Hologic s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 30, 2006 is incorporated herein by reference.

(d) Exhibits.

The following Exhibits are filed as part of this report:

EXHIBIT NO. DESCRIPTION

99.1 Press Release issued by Hologic on July 13, 2006.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: July 13, 2006 HOLOGIC, INC.

By: /s/ Glenn P. Muir Glenn P. Muir

Chief Financial Officer, Executive Vice President,

Finance and Treasurer

EXHIBIT INDEX

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