

Harding David
Form 4
May 11, 2011

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Harding David

2. Issuer Name and Ticker or Trading Symbol
HOLOGIC INC [HOLX]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
35 CROSBY DRIVE

(Street)

3. Date of Earliest Transaction (Month/Day/Year)
05/09/2011

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)

SVP, International

BEDFORD, MA 01730

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | | (A) or (D) | Price | | |
| Common Stock | 05/09/2011 | | M | 93,308 | A \$ 16.41 | 164,589 | D |
| Common Stock ⁽¹⁾ | 05/09/2011 | | S | 93,308 | D \$ 22.41 ⁽¹⁾ | 71,281 | D |
| Common Stock | 05/09/2011 | | M | 50,000 | A \$ 18.465 | 121,281 | D |
| Common Stock ⁽²⁾ | 05/09/2011 | | S | 50,000 | D \$ 22.41 ⁽²⁾ | 71,281 | D |
| Common Stock | 05/09/2011 | | M | 16,000 | A \$ 14.5 | 87,281 | D |

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

The transaction reported herein reflects an aggregate of sales whose prices ranged between \$22.40 and \$22.445. The Reporting Person
(1) further undertakes, to provide upon request by the Commission staff, the issuer, or a security holder of the issuer, full disclosure with respect to the number of shares sold at each separate price.

The transaction reported herein reflects an aggregate of sales whose prices ranged between \$22.40 and \$22.438. The Reporting Person
(2) further undertakes, to provide upon request by the Commission staff, the issuer, or a security holder of the issuer, full disclosure with respect to the number of shares sold at each separate price.

The transaction reported herein reflects an aggregate of sales whose prices ranged between \$22.40 and \$22.415. The Reporting Person
(3) further undertakes, to provide upon request by the Commission staff, the issuer, or a security holder of the issuer, full disclosure with respect to the number of shares sold at each separate price.

(4) This non-qualified stock option was originally issued on November 13, 2008 pursuant to the 2008 Equity Incentive Plan and becomes exercisable in five equal annual installments beginning November 13, 2009.

(5) Price not applicable to this transaction.

(6) This non-qualified stock option was originally issued pursuant to Cytac Corporation's 2004 Omnibus Stock Plan on October 4, 2004 and became fully exercisable on October 22, 2007 in connection with the merger.

(7) This non-qualified stock option was originally issued pursuant to Cytac Corporation's 2004 Omnibus Stock Plan on January 24, 2006 and became fully exercisable on October 22, 2007 in connection with the merger.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.