

HOLOGIC INC
 Form 4
 November 20, 2013

FORM 4

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

OMB APPROVAL

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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 *
ICAHN CARL C

 (Last) (First) (Middle)

**C/O ICAHN ASSOCIATES
 HOLDING LLC, 767 FIFTH AVE.,
 SUITE 4700**

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

3. Date of Earliest Transaction
 (Month/Day/Year)
11/18/2013

5. Relationship of Reporting Person(s) to Issuer

 (Check all applicable)

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

(Street)

NEW YORK, NY 10153

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

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)	Code	V	Amount	(D)	Price

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative	2. Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if	4. Transaction	5. Number of Derivative Securities Acquired (A) or	6. Date Exercisable and Expiration Date	7. Title Underly
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Security (Instr. 3)	or Exercise Price of Derivative Security	any (Month/Day/Year)	Code (Instr. 8)	Disposed of (D)			(Month/Day/Year)		(Instr. 3)
				Code V	(A)	(D)	Date Exercisable	Expiration Date	
Call Option ("right to purchase")	\$ 14.5	11/18/2013	P		715,000		11/18/2013	10/28/2015	pleas see footne (8)
Put Option ("obligation to purchase")	\$ 14.5	11/18/2013	S			715,000	10/28/2015	10/28/2015	pleas see footne (8)
Call Option ("right to purchase")	\$ 14.5	11/19/2013	P		757,500		11/19/2013	10/28/2015	pleas see footne (8)
Put Option ("obligation to purchase")	\$ 14.5	11/19/2013	S			757,500	10/28/2015	10/28/2015	pleas see footne (8)
Call Option ("right to purchase")	\$ 14.5	11/19/2013	P		1,051,342		11/19/2013	10/28/2015	pleas see footne (8)
Put Option ("obligation to purchase")	\$ 14.5	11/19/2013	S			1,051,342	10/28/2015	10/28/2015	pleas see footne (8)
Call Option ("right to purchase")	\$ 14.5	11/20/2013	P		242,500		11/20/2013	10/28/2015	pleas see footne (8)

Put Option ("obligation to purchase")	\$ 14.5	11/20/2013	S	242,500	10/28/2015	10/28/2015
Call Option ("right to purchase")	\$ 14.5	11/20/2013	P	3,357,156	11/20/2013	10/28/2015
Put Option ("obligation to purchase")	\$ 14.5	11/20/2013	S	3,357,156	10/28/2015	10/28/2015

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
ICAHN CARL C C/O ICAHN ASSOCIATES HOLDING LLC 767 FIFTH AVE., SUITE 4700 NEW YORK, NY 10153		X		

Signatures

CARL C.
ICAHN

11/20/2013

**Signature of
Reporting Person

Date

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).

(1) High River Limited Partnership ("High River") directly beneficially owns 705,000 Shares, Icahn Partners LP ("Icahn Partners") directly beneficially owns 1,086,310 Shares, Icahn Partners Master Fund LP ("Icahn Master") directly beneficially owns 1,147,315 Shares, Icahn Partners Master Fund II LP ("Icahn Master II") directly beneficially owns 407,118 Shares, and Icahn Partners Master Fund III LP ("Icahn Master III") directly beneficially owns 179,257 Shares.

(2) Barberry Corp. ("Barberry"), is the sole member of Hopper Investments LLC ("Hopper"), which is the general partner of High River. Beckton Corp. ("Beckton") is the sole stockholder of Icahn Enterprises G.P. Inc. ("Icahn Enterprises GP"), which is the general partner of Icahn Enterprises Holdings L.P. ("Icahn Enterprises Holdings"). Icahn Enterprises Holdings is the sole member of IPH GP LLC ("IPH"), which is the general partner of Icahn Capital LP ("Icahn Capital"). Icahn Capital is the general partner of each of Icahn Onshore LP ("Icahn Onshore") and Icahn Offshore LP ("Icahn Offshore"). Icahn Onshore is the general partner of Icahn Partners. Icahn Offshore is the general partner of each of Icahn Master, Icahn Master II and Icahn Master III.

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- Each of Barberry and Beckton is 100 percent owned by Carl C. Icahn. As such, Mr. Icahn is in a position indirectly to determine the investment and voting decisions made by each of High River, Icahn Partners, Icahn Master, Icahn Master II and Icahn Master III. Each of
- (3) Hopper, Barberry and Mr. Icahn may be deemed to indirectly beneficially own (as that term is defined in Rule 13d-3 under the Act) the Shares which High River owns. Each of Hopper, Barberry and Mr. Icahn disclaims beneficial ownership of such Shares except to the extent of their pecuniary interest therein.
- Each of Icahn Onshore, Icahn Capital, IPH, Icahn Enterprises Holdings, Icahn Enterprises GP, Beckton and Mr. Icahn may be deemed to
- (4) indirectly beneficially own (as that term is defined in Rule 13d-3 under the Act) the Shares which Icahn Partners owns. Each of Icahn Onshore, Icahn Capital, IPH, Icahn Enterprises Holdings, Icahn Enterprises GP, Beckton and Mr. Icahn disclaims beneficial ownership of such Shares except to the extent of their pecuniary interest therein.
- Each of Icahn Offshore, Icahn Capital, IPH, Icahn Enterprises Holdings, Icahn Enterprises GP, Beckton and Mr. Icahn may be deemed to
- (5) indirectly beneficially own (as that term is defined in Rule 13d-3 under the Act) the Shares which each of Icahn Master, Icahn Master II and Icahn Master III owns. Each of Icahn Offshore, Icahn Capital, IPH, Icahn Enterprises Holdings, Icahn Enterprises GP, Beckton and Mr. Icahn disclaims beneficial ownership of such Shares except to the extent of their pecuniary interest therein.
- High River directly beneficially owns 6,125,974 American-style call options (the "Call Options"), Icahn Partners directly beneficially
- (6) owns 9,426,404 Call Options, Icahn Master directly beneficially owns 9,957,502 Call Options, Icahn Master II directly beneficially owns 3,555,213 Call Options, and Icahn Master III directly beneficially owns 1,564,786 Call Options.
- High River directly wrote 6,125,974 European-style put options (the "Put Options"), Icahn Partners directly wrote 9,426,404 Put Options,
- (7) Icahn Master directly wrote 9,957,502 Put Options, Icahn Master II directly wrote 3,555,213 Put Options, and Icahn Master III directly wrote 1,564,786 Put Options. In each case, the exercise, termination or transfer of the Call Options will reduce the number of Put Options on a one-for-one basis.
- The Call Options reference an aggregate of 30,629,879 Shares, have an exercise price of \$14.50, expire on October 28, 2015, and provide
- (8) for physical settlement. The Put Options reference an aggregate of 30,629,879 Shares, have an exercise price of \$14.50, expire on October 28, 2015, and provide that they settle in cash.

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.