UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

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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): December 29, 2004

Tegal Corporation (Exact name of Registrant as Specified in its Charter)

Delaware 000-26824 68-0370244 (State or other jurisdiction of incorporation) File Number) Identification No.)

2201 South McDowell Boulevard Petaluma, California 94955 (Address of Principal Executive Offices)

(707) 763-5600 (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 3.02. Sale of Unregistered Securities

On February 11, 2004, Tegal Corporation (the "Company") signed a Common Stock Purchase Agreement with Kingsbridge Capital Limited ("Kingsbridge"), which was subsequently amended and restated on May 19, 2004 (the "Agreement"). The Agreement permits the Company to sell shares of common stock to Kingsbridge at the Company's sole discretion over a 24-month period on a "when and if needed" basis, to a maximum value of \$25 million (the "Structured Secondary"). The price of the common shares issued under the Agreement is based on a discount to the volume-weighted average market price during a specified drawdown period, but in no case may be lower than \$1.00 per share. The Company has no obligation to draw down all or any portion of the commitment. The maximum number of shares that may be issued to Kingsbridge under the Structured Secondary is 8,851,661.

Structured Secondary in which the Company sold 2,409,208 shares of the Company's common stock to Kingsbridge for\$3,561,690, representing an average per-share purchase price of approximately\$1.48. Pursuant to the Agreement, the Company paid broker fees of \$213,701 and issued warrants to purchase 24,092 shares of common stock at an exercise price of \$1.92 to Dahlman Rose Weiss, LLC, in connection with this draw down.

The shares of common stock issued to Kingsbridge under the Agreement are exempt from registration in reliance on Section 4(2) and Regulation D of the United Stated Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. The issuance was made in connection with a private placement under the Agreement and no general solicitation (as that term is used in Rule 502(c) of Regulation D) or general advertising or offering was made. The resale of the shares by Kingsbridge were registered under a registration statement on Form S-3 filed with the SEC on June 30, 2004 and declared effective on July 9, 2004 (SEC File No. 333-116980). Kingsbridge is identified as an underwriter in the registration statement with respect to the shares it receives in connection with the Agreement.

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 hereunto duly authorized.

Date: December 31, 2004 TEGAL CORPORATION

By: /s/ Thomas R. Mika

Name: Thomas R. Mika Title: Chief Financial Officer