# 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): October 11, 2006

# **KLA-TENCOR CORPORATION**

(Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction of Incorporation)

000-09992 (Commission File Number) 04-2564110 (IRS Employer Identification No.)

160 Rio Robles San Jose, California 95134 (Address of Principal Executive Offices)

Registrant's telephone number, including area code: (408) 875-3000

(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))

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### Item 2.01. Completion of Acquisition or Disposition of Assets.

On October 11, 2006, KLA-Tencor Corporation completed the acquisition of ADE Corporation ("ADE") pursuant to an Amended and Restated Agreement and Plan of Merger (the "Amended Merger Agreement") with ADE Corporation and South Acquisition Corporation, a wholly-owned subsidiary of KLA-Tencor ("Merger Sub"). As provided in the Amended Merger Agreement, at the closing of the transaction Merger Sub was merged with and into ADE, and each outstanding share of ADE common stock was converted into the right to received \$32.50 per share in cash, without interest. The acquisition was approved by ADE's stockholders on July 13, 2005.

A copy of the press release announcing the closing of the transaction is attached as Exhibit 99.1 and is incorporated in this report by reference.

Item 9.01	Financial Statements and Exhibits.
(d) Exhibit	s ·
The follow	ing exhibits are filed herewith:
Exhibit	
Number	Description
99.1	Text of press release issued by KLA-Tencor Corporation dated October 12, 2006.

# SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

## KLA-TENCOR CORPORATION

Date: October 12, 2006

By: /s/ Jeff Hall
Name: Jeff Hall
Title: Chief Financial Officer

# **Exhibit Index**

Exhibit Number	Description
99.1	Text of press release issued by KLA-Tencor Corporation dated October 12, 2006.

#### NEWS RELEASE

KLA-Tencor Contacts: Jeff Hall

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#### FOR IMMEDIATE RELEASE

October 12, 2006

#### KLA-TENCOR COMPLETES ACQUISITION OF ADE

SAN JOSE, CA – KLA-Tencor Corporation (NasdaqGS: KLAC) today announced it has completed its acquisition of ADE Corporation (NasdaqGM: ADEX). Former ADE stockholders will receive \$32.50 per share in cash. The transaction is valued at approximately \$474 million.

"We are pleased to welcome ADE as part of KLA-Tencor," stated Rick Wallace, CEO. "The addition of ADE further strengthens our leading inspection and metrology product portfolio and will deliver even more value to our customers."

#### About KLA-Tencor:

KLA-Tencor is the world leader in yield management and process control solutions for semiconductor manufacturing and related industries. Headquartered in San Jose, Calif., the company has sales and service offices around the world. An S&P 500 company, KLA-Tencor is traded on the NASDAQ Global Select Market under the symbol KLAC. Additional information about the company is available on the Internet at <a href="http://www.kla-tencor.com">http://www.kla-tencor.com</a>, which website is not part of this press release.

#### **Cautionary Statement Regarding Forward-Looking Statements**

This news release contains certain forward-looking statements within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995 and federal securities law. Such forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Those statements that make reference to expectations, predictions, beliefs, and assumptions should be considered forward-looking statements. These statements include, but are not limited to, those associated with the strengthening of KLA-Tencor's product portfolio and the delivery of value to KLA-Tencor's customers. These statements involve risks and uncertainties including those associated with the integration of ADE, changes in laws or regulations and other similar factors. Further information on potential factors that could affect KLA-Tencor's business is contained in its reports on file with the Securities and Exchange Commission, including its Form 10-K for the fiscal year ended June 30, 2005 and its Form 10-Q for the quarter ended March 31, 2006. KLA-Tencor is under no obligation to (and expressly disclaim any such obligation to) update or alter its forward-looking statements whether as a result of new information, future events or otherwise