UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 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): April 23, 2003

KLA-Tencor Corporation (Exact name of registrant as specified in its charter)

000-09992 (Commission File Number)

Delaware

(State or other jurisdiction of incorporation)

04-2564110 (I.R.S. Employer Identification No.)

160 Rio Robles San Jose, California 95134 (Address of principal executive offices, with zip code)

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

 $$\rm N/A$$ (Former name or former address, if changed since last report)

Item 7. Financial Statements and Exhibits.

(c) Exhibits.

Exhibit Description

99.1 Press Release issued by KLA-Tencor Corporation dated April 23, 2003.

Item 9. Regulation FD Disclosure

In accordance with Securities and Exchange Commission Release No. 33-8216, the following information, which is intended to be furnished under Item 12, "Results of Operations and Financial Condition," is instead being furnished under Item 9, "Regulation FD Disclosure." This information shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities under that Section. Furthermore, the information in this Current Report on Form 8-K, including the exhibit, shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

On April 23, 2003, KLA-Tencor Corporation, (the Company) issued a press release, the full text of which is furnished as Exhibit 99.1 to this report.

-2-

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.

By: /s/ John H. Kispert John H. Kispert Executive Vice President and Chief Financial Officer

INDEX TO EXHIBITS

Exhibit Description

99.1 Press Release issued by KLA-Tencor Corporation dated April 23, 2003.

KLA-Tencor Posts \$27 Million in Net Income for Third Quarter of Fiscal 2003

SAN JOSE, Calif.--(BUSINESS WIRE)--April 23, 2003--KLA-Tencor Corp. (Nasdaq:KLAC) today announced operating results for its third quarter of fiscal 2003, ended March 31, 2003. For the three-month period, the company posted net income of \$27 million or \$0.14 per share on revenue of \$304 million versus \$34 million or \$0.17 per share on revenues of \$357 million for the same period last year. When compared to the prior quarter, revenue decreased 9% from \$335 million while net income decreased 6% from \$29 million.

For the nine-month period, the company posted net income of \$108 million or \$0.56 per share on revenues of \$1.01 billion compared to earnings of \$170 million or \$0.86 per share and \$1.26 billion in revenue in the first nine months of the previous fiscal year.

According to Chief Executive Officer Ken Schroeder, the value KLA-Tencor brings to its customers and the company's operational excellence are reflected in the quarter's performance. "We're pleased to report that the book to ship ratio exceeded 1:1 for the first time in three quarters. Our net margin of 9% also improved quarter over quarter, despite a very tough environment. In addition, our cost reduction programs from previous periods and completion of some key engineering programs resulted in an 11% reduction in operating expenses quarter over quarter -- saving the company an additional \$15 million."

Schroeder added that KLA-Tencor continues to benefit from the technological leadership of its broad product portfolio, especially as customers become increasingly value oriented in allocating their capital dollars. "We continue to introduce breakthrough solutions -such as our eCD 1 CD SEM and Archer Aim overlay tools introduced this quarter -- which deliver unparalleled capabilities for successful pattern transfer down to the 65 nm node. We believe the accelerated adoption of our new products demonstrates the strong customer confidence in our technology leadership as well the overall strength and reputation of KLA-Tencor."

From a regional perspective, bookings during the quarter showed the largest percentage improvement in Taiwan and China. The U.S. and Japan remained steady with booking levels consistent with the previous quarter while Korea and Europe returned to a more normal percentage of total booking following a strong second quarter. The company ended the quarter with approximately six months of shipment backlog at current shipping levels.

By quarter end, the company had increased total cash, cash equivalents and marketable securities by \$89 million to a total of \$1.4 billion with no long-term debt on the balance sheet. Inventory decreased \$21 million to \$269 million. Accounts receivable decreased by \$26 million on lower shipments while DSO on shipments remained at 68 days. Gross margin of 48.5 percent decreased slightly from 48.9 percent in the previous quarter due primarily to a higher percentage of service revenue.

Forward Looking Statements: Statements in this press release regarding technological leadership, market share and adoption, current order backlog and future cost-saving measures are forward-looking statements, and are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current information and expectations, and involve a number of risks and uncertainties. Actual results may differ materially from those projected in such statements due to various factors, including but not limited to: delays or cancellations of orders by customers; shipments or acceptances; inability by the company to meet its production and/or product development schedules; the demand for semiconductors; and new and enhanced product offerings by competitors. For other factors that may cause actual results to differ from those projected, please refer to the company's Form 10-K, Forms 10-Q and other filings with the Securities and Exchange Commission. Actual results could differ materially from those anticipated in forward-looking statements in this release as a result of certain factors, including those set forth in the risk factors described in the company's SEC filings.

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 National Market under the symbol KLAC. Additional information about the company is available on the Internet at http://www.kla-tencor.com

KLA-Tencor Corporation CONDENSED CONSOLIDATED UNAUDITED BALANCE SHEETS

March 31,	June 30,
2003	2002

(In thousands)

ASSETS

Cash, short-term investments and marketable securities Accounts receivable, net Inventories Land, property and equipment, net Other assets	231,809 268,521 387,249	\$1,333,583 277,006 323,016 300,560 483,553		
Total assets		\$2,717,718		
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities: Accounts payable Deferred system profit Unearned revenue Other current liabilities Total current liabilities	49,728 400,285 	\$ 52,988 193,852 54,886 385,764 687,490		
Stockholders' equity: Common stock and capital in excess of par value Retained earnings Accumulated other comprehensive income	1,367,527	765,946 1,259,695 4,587		
Total stockholders' equity	2,125,056	2,030,228		
Total liabilities and stockholders' equity		\$2,717,718		

KLA-Tencor Corporation CONDENSED CONSOLIDATED UNAUDITED STATEMENTS OF OPERATIONS

	Marc	ch 31,	Nine months ended March 31,				
	2003	2002	2003	2002			
(In thousands, except per share data)							
Revenues: Product Service	\$238,921 65,377		\$ 819,504 195,232				
Total revenues	304,298	1,264,088					
Costs and operating expenses:							
Costs of goods sold							
Research and developmen	t 61,419	71,479	204,207	218,463			
Non-recurring	60,548	66,430	196,078	219,674			
acquisition, restructuring							
and other, net			(9,402)				
Total costs and operating expenses	278,698	320,011	905,096	1,066,418			
Income from operations	25,600	37,097	109,640	197,670			
Interest income and other, net	10,372	9,050	32,244	31,603			
Income before income taxes	35 , 972	46,147	141,884	229,273			
Provision for income taxes	8,633	11,998	34,052	59,611			
Net income	\$ 27,339	\$ 34,149 =======	\$ 107,832	\$ 169,662			

Earnings per basic share:

Net income	\$	0.14	\$	0.18	\$	0.57	\$	0.90
Earnings per diluted share:								
Net income	\$ ===	0.14	\$ ===	0.17	\$ ==	0.56	\$ ==	0.86
Weighted average number of shares:								
Basic	190,064		187,443			189,511	187,557	
Diluted	194,393		197,669		194,121		196,168	
CONTACT: KLA-Tencor	-							

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