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): January 29, 2009

KLA-TENCOR CORPORATION

(Exact name of registrant specified in its charter)

Delaware (State or other jurisdiction of incorporation)

000-09992 (Commission File Number) 04-2564110 (I.R.S. Employer Identification No.)

One Technology Drive, Milpitas, California (Address of principal executive offices)

95035 (Zip Code)

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

(Former name and former address, if changed since last report)

ral 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 2.02 Results of Operations and Financial Condition.

On January 29, 2009, KLA-Tencor Corporation issued a press release announcing selected operating results for its second quarter of fiscal year 2009, which ended on December 31, 2008. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in Item 2.02 of this Current Report on Form 8-K and the exhibit attached hereto 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, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibit is furnished herewith:

Exhibit

Number Description

99.1 Text of press release issued by KLA-Tencor Corporation dated January 29, 2009

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.

Date: January 29, 2009

KLA-TENCOR CORPORATION

By: /s/ Brian M. Martin

Name: Brian M. Martin

Title: Senior Vice President and General Counsel

EXHIBIT INDEX

Exhibit No. Description

99.1 Text of press release issued by KLA-Tencor Corporation dated January 29, 2009

FOR IMMEDIATE RELEASE

Investor Relations: Ed Lockwood Sr. Director, Investor Relations (408) 875-9529 ed.lockwood@kla-tencor.com

(Loss) Earnings per Share

Media Relations:

(0.12)

\$

Meggan Powers Sr. Director, Corporate Communications (408) 875-8733 meggan.powers@kla-tencor.com

0.32

KLA-TENCOR REPORTS FISCAL 2009 SECOND QUARTER RESULTS

MILPITAS, Calif. (Jan. 29, 2009)—KLA-Tencor Corporation (NASDAQ: KLAC) today announced operating results for its second quarter of fiscal 2009, which ended on December 31, 2008. KLA-Tencor reported a GAAP net loss of \$434 million and a GAAP loss per share of \$2.57 on revenues of \$397 million for the second quarter of fiscal 2009. The results for the second quarter of fiscal 2009 include the pre-tax impact of a \$435 million charge related to the aggregate impairment of goodwill and purchased intangible assets. KLA-Tencor reported a non-GAAP net loss of \$20 million and a non-GAAP loss per share of \$0.12 for the second quarter of fiscal 2009.

"The continuing worldwide economic slowdown drove sharp reductions in our customers' capital budgets, and KLA-Tencor experienced a greater-than-expected decline in orders and revenue at the end of the December quarter, including service revenue," said Rick Wallace, president and chief executive officer of KLA-Tencor. "In light of the current economic environment and our limited visibility regarding future market conditions, KLA-Tencor has been taking aggressive steps to reduce operating expenses and drive structural efficiencies across our organization, while maintaining a high level of investment in research and development, as well as our focus on customer service. We are confident these actions will allow us to sustain our technological and market leadership during this severe downturn and position us well when industry conditions improve, while protecting our balance sheet."

	GAAP Results			
		Q2 FY 2009	Q1 FY 2009	Q2 FY 2008
Revenues		\$ 397 million	\$ 533 million	\$ 636 million
Net (Loss) Income		\$ (434) million	\$ 19 million	\$ 84 million
(Loss) Earnings per Share		\$ (2.57)	\$ 0.11	\$ 0.45
	Non-GAAP Results			
		Q2 FY 2009	Q1 FY 2009	Q2 FY 2008
Net (Loss) Income		\$ (20) million	\$ 55 million	\$ 138 million

A reconciliation between GAAP operating results and non-GAAP operating results is provided following the financial statements that are part of this release. Non-GAAP results include the impact of stock-based compensation, but exclude the impact of acquisition, goodwill and intangible asset impairment, restatement, and restructuring related items.

KLA-Tencor will discuss its fiscal 2009 second quarter results, along with its outlook, on a conference call today beginning at 2:00 p.m. Pacific Standard Time. A webcast of the call will be available at: www.kla-tencor.com

Forward-Looking Statements:

Statements in this press release other than historical facts, such as statements regarding the benefit to customers of KLA-Tencor's products, anticipated performance of the company's products, anticipated market conditions, potential market opportunities for KLA-Tencor, anticipated steps designed to reduce KLA-Tencor's costs and the success of such efforts, KLA-Tencor's ability to sustain its current technological and market position in the future, and demand for KLA-Tencor's products, 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: the demand for semiconductors; the financial condition of the global capital markets and the general macroeconomic environment; new and enhanced product offerings by competitors; cancellation of orders by customers; KLA-Tencor's inability to successfully integrate and manage businesses that it acquires; and changing customer demands. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this release, please refer to KLA-Tencor's Annual Report on Form 10-K for the year ended June 30, 2008, subsequently filed Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein). KLA-Tencor assumes no obligation to, and does not currently intend to, update these forward-looking statements.

About KLA-Tencor:

KLA-Tencor Corporation is the world's leading supplier of process control and yield management solutions for the semiconductor and related nanoelectronics industries. Headquartered in Milpitas, California, 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 at http://www.kla-tencor.com. (KLAC-F)

Use of Non-GAAP Financial Information:

The non-GAAP and supplemental information provided in this press release is a supplement to, and not a substitute for, our financial results presented in accordance with United States GAAP.

To supplement our condensed consolidated financial statements presented in accordance with GAAP, we provide certain non-GAAP financial information, which is adjusted from results based on GAAP to exclude certain costs and expenses, as well as other supplemental information. The non-GAAP and supplemental information is provided to enhance the user's overall understanding of our operating performance and our prospects in the future. Specifically, we believe the non-GAAP information provides useful measures to both management and investors regarding financial and business trends relating to our financial performance by excluding certain costs and expenses that we believe are not indicative of our core operating results. The non-GAAP information is among the budgeting and planning tools that management uses for future forecasting. The presentation of non-GAAP and supplemental information is not meant to be considered in isolation or as a substitute for results prepared and presented in accordance with United States GAAP.

KLA-Tencor Corporation Condensed Consolidated Unaudited Balance Sheets

(In thousands)	Dec. 31, 2008	June 30, 2008
ASSETS		,
Cash and short- and long-term investments	\$ 1,222,400	\$ 1,579,383
Accounts receivable, net	332,353	492,488
Inventories, net	472,585	459,449
Other current assets	523,775	546,591
Land, property and equipment, net	323,020	355,474
Goodwill	337,572	601,882
Purchased intangibles, net	162,075	297,778
Other non-current assets	482,313	515,345
Total assets	\$ 3,856,093	\$ 4,848,390
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 103,817	\$ 104,315
Deferred system profit	83,433	150,797
Unearned revenue	70,949	56,692
Other current liabilities	421,433	638,528
Total current liabilities	679,632	950,332
Non-current liabilities:		
Income tax payable	55,934	63,634
Unearned revenue	9,225	31,745
Other non-current liabilities	79,239	76,288
Long-term debt	744,932	744,661
Total liabilities	1,568,962	1,866,660
Stockholders' equity:		
Common stock and capital in excess of par value	786,464	729,629
Retained earnings	1,532,417	2,204,417
Accumulated other comprehensive income (loss)	(31,750)	47,684
Total stockholders' equity	2,287,131	2,981,730
Total liabilities and stockholders' equity	\$ 3,856,093	\$ 4,848,390

KLA-Tencor Corporation Condensed Consolidated Unaudited Statements of Operations

	Three mon	ths ended	Six months ended		
(In thousands except per share data)	Dec. 31, 2008	Dec. 31, 2007	Dec. 31, 2008	Dec. 31, 2007	
Revenues:	2008		2008	2007	
Product	\$ 273,072	\$513,449	\$ 678,568	\$ 1,091,881	
Service	123,517	122,334	250,534	236,922	
Total revenues	396,589	635,783	929,102	1,328,803	
Costs and operating expenses:					
Costs of revenues	238,167	279,167	490,980	585,060	
Engineering, research and development	95,266	97,513	209,627	196,857	
Selling, general and administrative	133,954	159,453	252,444	269,958	
Goodwill and intangible asset impairment	434,833	6,163	446,744	6,163	
Total costs and operating expenses	902,220	542,296	1,399,795	1,058,038	
Income (loss) from operations	(505,631)	93,487	(470,693)	270,765	
Interest income (expense) and other, net	(12,472)	13,269	(8,295)	30,743	
Income (loss) before income taxes	(518,103)	106,756	(478,988)	301,508	
Provision for (benefit from) income taxes	(83,849)	22,821	(64,023)	129,415	
Net income (loss)	\$(434,254)	\$ 83,935	\$ (414,965)	\$ 172,093	
Net income (loss) per share:			<u> </u>		
Basic	\$ (2.57)	\$ 0.46	\$ (2.43)	\$ 0.93	
Diluted	\$ (2.57)	\$ 0.45	\$ (2.43)	\$ 0.91	
Cash dividend paid per share	\$ 0.15	\$ 0.15	\$ 0.30	\$ 0.30	
Weighted average number of shares:					
Basic	169,022	181,241	170,552	184,516	
Diluted	169,022	185,199	170,552	189,122	

KLA-Tencor Corporation Condensed Consolidated Unaudited Statements of Cash Flows

	Three mon Decemi	
(In thousands)	2008	2007
Cash flows from operating activities:		
Net income (loss)	\$(434,254)	\$ 83,935
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	35,646	28,345
Goodwill, purchased intangible assets and long-lived asset impairment	436,833	6,163
Provision for doubtful accounts	23,887	_
Non-cash, stock-based compensation	22,303	23,252
Tax charge from stock-based compensation	(3,294)	(340)
Excess tax benefit from stock-based compensation	(2)	(284)
Net loss (gain) on sale of marketable securities and other investments	641	(409)
Gain on sale of real estate assets	(1,997)	(9,042)
Changes in assets and liabilities, net of assets acquired and liabilities assumed in business combinations:		
Decrease in accounts receivable, net	31,119	48,905
Decrease in inventories	30,322	17,782
Increase in other assets	(16,314)	(31,646)
Increase (decrease) in accounts payable	736	(4,543)
Increase (decrease) in deferred system profit	1,302	(13,366)
Decrease in other liabilities	(162,528)	(23,544)
Net cash provided by (used in) operating activities	(35,600)	125,208
Cash flows from investing activities:		ĺ
Acquisition of businesses, net of cash received	(13,952)	(3,966)
Capital expenditures, net	(6,967)	(22,609)
Proceeds from sale of real estate assets	19,348	34,622
Purchase of available-for-sale securities	(124,775)	(247,426)
Proceeds from sale and maturity of available-for-sale securities	129,770	268,691
Purchase of trading securities	(19,206)	(14,017)
Proceeds from sale of trading securities	18,707	15,236
Net cash provided by investing activities	2,925	30,531
Cash flows from financing activities:		
Issuance of common stock	21,118	31,764
Common stock repurchases	(49,046)	(126,237)
Payment of dividends to stockholders	(25,335)	(27,151)
Excess tax benefit from stock-based compensation	2	284
Net cash used in financing activities	(53,261)	(121,340)
Effect of exchange rate changes on cash and cash equivalents	8,807	(807)
Net increase (decrease) in cash and cash equivalents	(77,129)	33,592
Cash and cash equivalents at beginning of period	733,459	514,051
1 6 6 1		
Cash and cash equivalents at end of period	<u>\$ 656,330</u>	\$ 547,643

KLA-Tencor Corporation

Condensed Consolidated Unaudited Supplemental Information (In thousands except per share data)

Reconciliation of GAAP Net Income (Loss) to Non-GAAP Net Income (Loss)

		Th	ree months ende	Six months ended		
		Dec. 31, 2008	Sept. 30, 2008	Dec. 31, 2007	Dec. 31, 2008	Dec. 31, 2007
GAAP net income (loss)		\$(434,254)	\$ 19,289	\$ 83,935	\$(414,965)	\$172,093
Adjustments to reconcile GAAP net income (loss) to non-GAAP net income (loss)						
Acquisition related charges	a	22,590	28,418	15,741	51,008	28,107
Restructuring, severance and other	b	23,621	4,161	(5,986)	27,782	(3,707)
Restatement related charges	c	9,190	3,784	67,000	12,974	69,111
Goodwill and intangible asset impairment	d	434,833	11,911	6,163	446,744	6,163
Income tax effect of non-GAAP adjustments	e	(75,882)	(12,214)	(28,747)	(88,096)	(35,067)
Non recurring tax item	f					46,613
Non-GAAP net income (loss)		\$ (19,902)	\$ 55,349	\$138,106	\$ 35,447	\$283,313
GAAP net income (loss) per diluted share		\$ (2.57)	\$ 0.11	\$ 0.45	\$ (2.43)	\$ 0.91
Non-GAAP net income (loss) per diluted share		\$ (0.12)	\$ 0.32	\$ 0.75	\$ 0.21	\$ 1.50
Shares used in diluted shares calculation		169,022	174,386	185,199	170,552	189,122

<u>Impact of items included in Condensed Consolidated Unaudited Statements of Operations:</u>

	Goodwill and intangible asset impairment	Acquisition related charges	Restructuring, severance and other		ed severance		severance		severance related		Total pre-tax GAAP to non-GAAP adjustment
Costs of revenues	\$ —	\$ 15,354	\$	9,759	\$		\$ 25,113				
Engineering, research and development	_	1,606		4,484		_	6,090				
Sales, general and administrative	_	5,630		9,378		9,190	24,198				
Goodwill and intangible asset impairment	434,833						434,833				
Total in three months ended Dec. 31, 2008	\$434,833	\$ 22,590	\$	23,621	\$	9,190	\$490,234				
Total in three months ended Sept. 30, 2008	\$ 11,911	\$ 28,418	\$	4,161	\$	3,784	\$ 48,274				
Total in three months ended Dec. 31, 2007	\$ 6,163	\$ 15,741	\$	(5,986)	\$	67,000	\$ 82,918				

	11	nded	
	Dec. 31,	Sept. 30,	Dec. 31,
	2008	2008	2007
Stock-based compensation			
Costs of revenues	\$ 4,679	\$ 5,456	\$ 4,700
Engineering, research and development	6,981	9,971	7,109
Sales, general and administrative	10,643	18,955	11,443
Total	\$ 22,303	\$ 34,382	\$ 23,252

To supplement our condensed consolidated financial statements presented in accordance with GAAP, we provide certain non-GAAP financial information, which is adjusted from results based on GAAP to exclude certain costs and expenses, as well as other supplemental information. The non-GAAP and supplemental information is provided to enhance the user's overall understanding of our operating performance and our prospects in the future. Specifically, we believe the non-GAAP information provides useful measures to both management and investors regarding financial and business trends relating to our financial performance by excluding certain costs and expenses that we believe are not indicative of our core operating results. The non-GAAP information is among the budgeting and planning tools that management uses for future forecasting. The presentation of non-GAAP and supplemental information is not meant to be considered in isolation or as a substitute for results prepared and presented in accordance with United States GAAP.

- Acquisition related charges include amortization of intangible assets, inventory fair value adjustments, and in-process research and development associated with acquisitions. Management believes that the expense associated with the amortization of acquisition related intangible assets is appropriate to be excluded because a significant portion of the purchase price for acquisitions may be allocated to intangible assets that have short lives, and exclusion of the amortization expense allows comparisons of operating results that are consistent over time for both KLA-Tencor's newly acquired and long-held businesses. Management believes that it is appropriate to exclude inventory fair value adjustments, in-process research and development and gains and losses on foreign exchange contracts associated with business acquisitions as they are not indicative of ongoing operating results and therefore limit comparability. Management believes excluding these items helps investors compare our operating performance with our results in prior periods as well as with the performance of other companies.
- b Restructuring, severance and other includes gains and costs associated with the company's facilities divestment program, reductions in force, entry into a severance and consulting agreement during the quarter ended September 30, 2008 with its former president/chief operating officer, and gains from sale of facilities. Management believes that it is appropriate to exclude those items as they are not indicative of ongoing operating results and therefore limit comparability. Management believes excluding these items helps investors compare our operating performance with our results in prior periods as well as with the performance of other companies.
- c Restatement related charges include compensation related to reimbursement payments by KLA-Tencor to non-executive employees for penalty taxes under section 409A of the Internal Revenue Code, as well as legal and other expenses related to the stock option investigation, shareholder litigation and related matters. Management believes that it is appropriate to exclude those items as they are not indicative of ongoing operating results and therefore limit comparability. Management believes excluding these items helps investors compare our operating performance with our results in prior periods as well as with the performance of other companies.
- d Goodwill and intangible asset impairment includes non-cash expense recognized as a result of the company's annual testing for goodwill impairment performed in the second quarter of every fiscal year and testing for intangible asset impairment driven by certain macroeconomic and company-specific triggering events, as well as the impairment of goodwill and intangible assets as a result of discontinuing acquired products and making acquired products available for sale. Management believes that it is appropriate to exclude those items as they are not indicative of ongoing operating results and therefore limit comparability. Management believes excluding these items helps investors compare our operating performance with our results in prior periods as well as with the performance of other companies.
- e Income tax effect of non-GAAP adjustments includes the income tax effects of the excluded items noted above. Management believes that it is appropriate to exclude the tax effects of the items noted above in order to present a more meaningful measure of non-GAAP net income.
- f Non recurring tax item includes the U.S. tax impact associated with the implementation of our global manufacturing strategy and a benefit from revision of the amount of undistributed earnings of foreign subsidiaries considered to be permanently reinvested outside the United States. Management believes that it is appropriate to exclude these items as they are not indicative of ongoing operating results and therefore limit comparability. Management believes excluding these items helps investors compare our operating performance with our results in prior periods as well as with the performance of other companies.