



(2003)

**Group Project Report
04/08/2003**

**ACC 712 - Financial Statement Analysis - Section 001
Professor Russell Lundholm
University of Michigan Business School**



**Group Members:
Serguei Kojoukhov
Benjamin Meeker
Nickolay Vasilyev**

I. EXECUTIVE SUMMARY

Our fundamental recommendation for Lone Star Technologies (LSS) is to sell or short the stock. We firmly believe that the stock is currently over-valued at a recent market price of \$21.50/share. Current market expectations for the OCTG industry seem not to be reflective of our best estimates of performance for the foreseeable future, particularly as related to LSS.

II. STRATEGIC ANALYSIS

Industry Analysis (Porter's 5 Forces)

Industry Rivalry (Oligopoly):

- Cyclical & low market growth, 3 primary OCTG domestic producers (LSS, MVK, NSS)

Buyer Power (High):

- Fortune 500 companies (BP, ExxonMobil, DaimlerChrysler, Ford, etc.)

Supplier Power (High):

- Consolidated steel producers (presumably US Steel, Bethlehem, Nucor, etc.)

Barriers to Entry/Exit (Neutral):

- Governmental tariffs
- No restrictions on market exit

Substitutes (Low):

- No credible similarly performing products

Complements (High):

- Inter-compatibility with other rig/drilling equipment & service products

Generally speaking, the Oil Country Tubular Goods (OCTG) industry produces low margins and is subject to many external risk factors. One significant impact on the cost structure of this industry is the existence of tariffs. On the one hand, tariffs inhibit the importation of foreign finished goods into the US market and hence limit competition. On the other hand, however, tariffs protect domestically produced steel, which effectively increases the price of the primary OCTG raw material input, constituting approximately 55% of finished product cost. By contrast, OCTG products represent a miniscule amount of costs for oil extractors/producers, which makes it fairly price inelastic.

Firm Strategy Analysis

LSS' product offerings include the following sub-segments: (1) Oilfield, (2) Specialty Tubing, and (3) Flat Rolled and Other Tubular Goods. On the basis of domestic OCTG consumption, the top three producers in 2002 held 61.24% of total market share (21.06%, 25.30%, and 14.88% for LSS, MVK, and NSS, respectively). While it seems that the major sub-segment is comprised largely of standardized and commoditized products, there has been a move to differentiate other sub-segments on the basis of quality (i.e., increased tolerances & higher grade specifications). Nevertheless, there is strong indication of tacit collusion among the leading OCTG producers with MVK as a possible price leader. Although this inference is purely speculative, LSS may enjoy certain sway with Bush administration policies as a result of its joint venture with Halliburton (Dick Cheney as CEO) in 1999.

III. ACCOUNTING ANALYSIS

In our opinion, LSS largely adheres to GAAP without the appearance of overly aggressive accounting or substantial earnings management abuses. Nevertheless, we feel compelled to make certain adjustments to the company's as-reported financial statements, which were restated in order to provide a more accurate representation of the firm's underlying business. The following represent the major areas of concern:

- Litigation Reserve: A judgment of \$32 million (currently under appeal) was levied against LSS in connection to an aborted acquisition of North Star Steel from Cargill. In a clear attempt to take a "big-bath" in an already bad earnings year, LSS recorded a reserve in other non-current liabilities and a litigation expense embedded in SG&A, which can serve as a possible earnings management tool in the future. We restated the impact of litigation to appear as a non-recurring expense in other income (loss).
- Net Operating Loss Carry-forwards: The estimated value of LSS' NOLs stands at \$275 million. LSS management has taken the conservative approach of recording a valuation allowance equal to the net deferred tax asset amount, which could serve as a reserve to increase earnings in the future. Consequently, our estimate of ETR is based on LSS' ability to realize NOLs in the future.
- Revenue Recognition: LSS includes freight as a component of both net sales and COGS, which we believe to be passed along to customers at cost. On a superficial level, this increases revenue but negatively impacts profitability ratios. Because we believe this to be a standard industry practice and due to insufficient information, we did not adjust LSS' income statement to correct for this effect.
- Goodwill: Due to acquisitions, LSS carries \$50.1 million of goodwill on its balance sheet, which has not been impaired since the adoption of SFAS 142. Continued strategic acquisitions will likely increase goodwill, which LSS may or may not write-off due to impairment in future periods. Accordingly, we made no adjustment on the income statement.
- Pension Plan, etc.: Among other factors affecting the future LSS' financial statements, we noted the under-funded employee pension plans resulting in increase of minimum pension liability by \$14.9 million, environmental liability reserve of \$8.9 million, required yearly environmental expenditures of \$1-\$2 million, warranties reserve of \$2.1 and warranties payments of \$3.7 in 2002.

IV. FINANCIAL ANALYSIS

Dupont Analysis

After restating LSS' financial statements, we conducted both a basic and advanced Dupont analysis of the firm's current and past performance. Using the most basic approach, we noted what appears to be a substantial amount of cyclicity in profit margin and asset turnover ratios, as well as an increasing reliance on leverage, between the years of 1999-2002. For FYE2002, ROE of -0.220 decomposed into the following ratios: (1) profit margin @ -0.132, (2) asset turnover @ 0.877, and (3) leverage @ 1.901. Nevertheless, more advanced Dupont analysis provided greater clarity as to the specific reasons behind the firm's decline in performance. Most importantly, the spread on borrowing is negative, contributing substantially to deterioration in ROE. Essentially, the return generated from net operating assets is insufficient to cover the cost of borrowing, which is the case in all previous years. For FYE2002, ROE of -0.220 is

represented by the following: $-0.122 + 0.478 * (-0.205) \Rightarrow \text{RNOA} + \text{LEV} * \text{Spread}$. Even by comparison to LSS' best performance cyclically (FYE 2000 ROE @ 0.171), RNOA was still insufficient to cover NBC, resulting in a negative spread. What has compounded this problem for LSS is its increasing reliance on growth through acquisitions, which it has financed largely with long-term debt.

Cash Flow Analysis

Negative cash from operations seems to be a persistent problem for LSS, recording a positive value in only one of the past four fiscal years. As far as cash from investing activities is concerned, LSS is in a highly capital intensive industry, requiring significant expenditures to remain competitive. Nevertheless, substantial increases in intangibles (i.e., related to goodwill) represent investment through LSS' aggressive acquisition strategy. Through an analysis of cash provided from financing, LSS has continued to issue common stock in addition to significant amounts of debt, which have amounted cumulatively over the past four years to 143,200 and 150,000, respectively. With an increasing reliance on debt and equity financing, LSS has been able to support, largely negative on balance, flows from both operations and investing.

Peer Comparison

As a necessary predicate to understanding LSS' performance, we undertook an analysis of its financial performance relative to comparable companies. Referencing several online databases and analysts' reports, we determined that in conjunction with LSS the following companies accurately represented industry performance: (1) NS Group, Inc. [NSS], (2) Maverick Tube Corp. [MVK], (3) Hydril Co. [HYDL], and (4) Grant Prideco, Inc. [GRP]. Using measures as calculated by Worldscope [Thompson Analytics], LSS failed to exceed comparables' averages and was notably outperformed by MVK, its closest direct competitor, on virtually every dimension over past and current years. Not surprisingly, narrowing focus to FYE2002 yields a gloomy analysis on the following measures: (1) *ROE*; LSS=-21.95%, AVG=-2.71%, (2) *Asset Turnover*; LSS=0.85, AVG=1.02, (3) *LTD/CE*; LSS=47.98, AVG=24.47. While ROE and Asset Turnover are self-explanatory, see above for a discussion of the negative impact of increased debt for LSS.

V. FORECASTING ASSUMPTIONS

On the basis of LSS' 10-K filing and various industry reports, we decided to approach forecasting using a holistic approach. Initially, we had contemplated disaggregating sales into the three major revenue streams and attempt to make projections accordingly; however, it made logical and pragmatic sense to examine revenue projections as a whole. Accordingly, we decided to focus on predictions for growth trends in the OCTG segment, which represented a clear majority of LSS' revenues. By looking at the OCTG segment, we believe that our forecasts will more accurately capture the substantial fluctuations and attendant cyclicality experienced by players in this industry, whereas the other segments remain will likely remain relatively constant in terms of revenue growth and product mix. In addition to conducting multiple regression analyses on industry and economic data, we compared our forecasting assumptions to analysts' estimates for LSS' future. The following represents an explanation and justification for the key assumptions for use in our valuation analysis:

- Sales Growth: Initially, our regression analysis included numerous variables, including oil, gas and steel prices, as well as various drilling industry parameters and macroeconomic factors. Ultimately, the statistically significant variables turned out to be Number of Rigs (we used total active rigs in US, Canada and Gulf of Mexico), which is 'natural' revenue driver for the OCTG division, and Oil & Gas prices. Gas prices were included because of low P-value in resulting regression, even though it was highly correlated (0.76) with oil price. The resulting R^2 is 94.32%, which we consider strongly significant, with a standard deviation of ~\$39M. Sources we used for our projections included company and independent sources (Energy Information Agency for oil & gas prices, Baker Hughes and PetroStrategies for Rig Count).
- COGS/Sales: Using guidance from a recent LSS conference call and predictions on steel prices (55% of COGS) from manufacturing.net, we predicted some improvement by the end of the forecast horizon due to lessening trade restrictions on steel imports.
- SG&A/Sales: Moderate improvement.
- ETR: 0% because of huge existing NOLs and modest EBT projections.
- Other Liabilities/Sales & Cash/Sales: reduced to reflect settlement of litigation over failed acquisition.
- Working Capital Ratios: we foresee a modest reduction in intangibles to sales level over forecasting period as well as some other minor improvements.

VI. VALUATION ANALYSIS

Using eVal2, we conducted a valuation analysis based on the Discounted Cash Flow method to calculate the equity value of LSS. To arrive at an appropriate cost of equity, we employed two methods, the CAPM and Size model. We assumed a 4% risk-free rate based on the 10-year US T-bill rate and 6.7% market risk premium from Bloomberg. The result of our forecasting and analysis yielded an equity value of \$10.15/share using our most optimistic, albeit conservative, assumptions. Next, for the sake of comparison, we attempted to faithfully input assumptions into a clean eVal worksheet based on predictions presented by the sell side analysts. None of the model outputs came close to the current target for LSS stock price at \$30/share reported by sell-side analysts (Exhibit 4). In any case, sell side analysts arrived at a higher valuation than we could justify (valuations available from both RBC Capital Markets and Bear Stearns are based on P/E multiples). Contrary to sell side analysts' expectations, we believe that the recent market price for LSS @ \$21.50 is overvalued due to overly optimistic revenue projections, likely based on recent changes in rig count in North America and exuberant expectations on increasing natural gas prices, as well as expected reductions in tariffs on steel imports.

VII. CONCLUSION

The OCTG industry is a very highly cyclical business, which will lead to certain amounts of volatility in price movements of LSS stock. Nevertheless, recent macroeconomic events have made this particular industry segment seem more attractive than normal. Amongst its peers, LSS has proved itself to be a consistent poor performer, especially relative to its closest competitor Maverick. Based on sound financial analysis and valuation techniques, our analysis yields a view of the marketplace that is less attractive than current market expectations. It is our strong opinion that LSS should be sold, if currently held, or shorted, if a position in it is to be taken.

Exhibit 1

Ratio Analysis

	12/31/1998	12/31/1999	12/31/2000	12/31/2001	12/31/2002	12/31/2003	12/31/2004	12/31/2005	12/31/2006	12/31/2007	12/31/2008
Profitability											
Return on Equity		-0.0286	0.1709	0.0574	-0.2204	0.0198	0.0380	0.0167	0.0329	0.0419	0.1448
Return on Equity (b4 non-recurring)		-0.0379	0.1599	0.0682	-0.1329	0.0198	0.0380	0.0167	0.0329	0.0419	0.1448
Return on Net Operating Assets		-0.0047	0.1877	0.0694	-0.1223	0.0400	0.0522	0.0380	0.0498	0.0563	0.1235
Basic Dupont Model											
Net Profit Margin	-0.0563	-0.0152	0.0598	0.0252	-0.1321	0.0103	0.0217	0.0085	0.0146	0.0170	0.0498
x Total Asset Turnover		1.0540	1.4896	1.1864	0.8774	1.0426	0.9766	1.0482	1.1483	1.1827	1.3025
x Total Leverage		1.7842	1.9181	1.9193	1.9011	1.8516	1.7936	1.8722	1.9697	2.0854	2.2330
= Return on Equity		-0.0286	0.1709	0.0574	-0.2204	0.0198	0.0380	0.0167	0.0329	0.0419	0.1448
Advanced Dupont Model											
Net Operating Margin	-0.0472	-0.0025	0.0811	0.0440	-0.1083	0.0301	0.0429	0.0283	0.0326	0.0345	0.0657
x Net Operating Asset Turnover		1.8708	2.3133	1.5757	1.1288	1.3285	1.2173	1.3458	1.5261	1.6329	1.8807
= Return on Net Operating Assets		-0.0047	0.1877	0.0694	-0.1223	0.0400	0.0522	0.0380	0.0498	0.0563	0.1235
Net Borrowing Cost (NBC)		4.6000	0.2591	0.0962	0.0831	0.0847	0.0847	0.0847	0.0847	0.0847	0.0847
Spread (RNOA - NBC)		-4.6047	-0.0714	-0.0268	-0.2054	-0.0446	-0.0325	-0.0466	-0.0349	-0.0283	0.0389
Financial Leverage (LEV)		0.0052	0.2351	0.4451	0.4778	0.4532	0.4390	0.4582	0.4821	0.5104	0.5465
ROE = RNOA + LEV*Spread		-0.0286	0.1709	0.0574	-0.2204	0.0198	0.0380	0.0167	0.0329	0.0419	0.1448

Earnings Quality Analysis

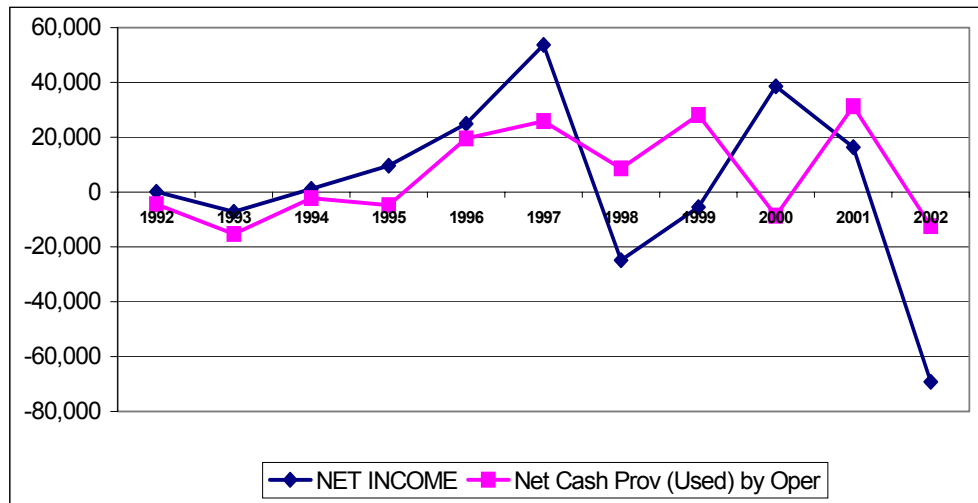


Exhibit 2

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.971165114
R Square	0.943161678
Adjusted R Square	0.918802398
Standard Error	39188.94712
Observations	11

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.7839E+11	59463282261	38.71878196	9.96419E-05
Residual	7	10750415037	1535773577		
Total	10	1.8914E+11			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-494848.6921	111725.6158	-4.429142668	0.003047405	-759037.6037	-230659.7804	-759037.6037	-230659.7804
Total Rigs NA	709.0265216	102.4857573	6.918293235	0.000227561	466.6863877	951.3666554	466.6863877	951.3666554
Oil Prices								
\$	21055.14005	5603.248263	3.757666815	0.007096527	7805.5728	34304.7073	7805.5728	34304.7073
Natural Gas								
(Price)	-132657.9805	44562.75196	-2.976880347	0.020605761	-238032.0691	-27283.89189	-238032.0691	-27283.89189

RESIDUAL OUTPUT

<i>Observation</i>	<i>Predicted NET SALES</i>	<i>Residuals</i>	<i>Standard Residuals</i>
1	510477.1529	13222.84708	0.40328527
2	673220.8793	-23020.8793	-0.702116683
3	647837.6318	-2537.631828	-0.077395551
4	314390.8753	47609.12466	1.452036659
5	417581.783	24818.21701	0.756933911
6	649458.1621	4841.837915	0.147671821
7	502151.8408	46848.15917	1.428827877
8	431922.7378	-6122.73777	-0.186738147
9	411178.2867	-54178.28674	-1.652390357
10	340344.7741	-7844.774088	-0.239258748
11	321235.8761	-43635.87609	-1.330856053

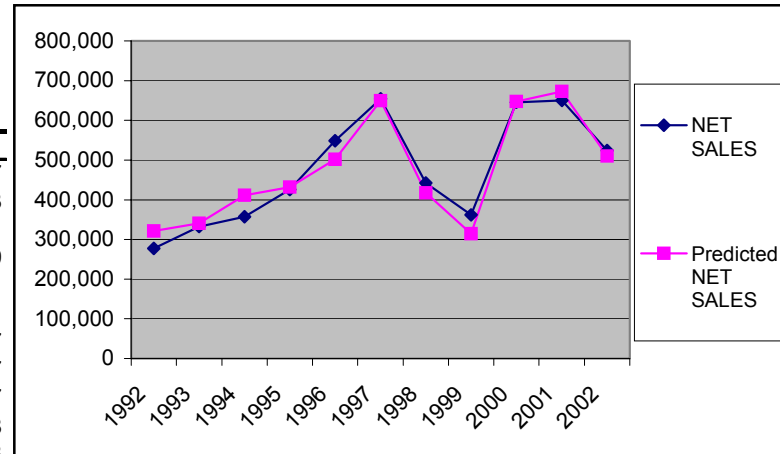


Exhibit 3: eVal2 Forecasting Assumptions

Company Name	LONE STAR TECHNOLOGIES INC										
Forecast Horizon	5 Years										TERMINAL
Estimated Price/Share=\$10.15											YEAR
	Actual	Actual	Actual	Actual	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Fiscal Year End Date	12/31/1998	12/31/1999	12/31/2000	12/31/2001	12/31/2002	12/31/2003	12/31/2004	12/31/2005	12/31/2006	12/31/2007	12/31/2008
Implied Return on Equity		(0.029)	0.171	0.057	(0.220)	0.020	0.038	0.017	0.033	0.042	0.145
Income Statement Assumptions											
Sales Growth		-18.2%	78.3%	0.8%	-19.5%	27.7%	-8.7%	-5.0%	3.1%	-1.9%	5.0%
Cost of Goods Sold/Sales	95.4%	91.9%	83.4%	85.8%	94.4%	87.4%	85.9%	87.7%	87.7%	87.7%	85.0%
R&D/Sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SG&A/Sales	4.5%	4.3%	5.2%	5.6%	7.1%	6.0%	5.8%	5.6%	5.4%	5.2%	5.0%
Dep&Amort/Avg PP&E and Intang.		10.9%	11.1%	9.6%	8.7%	8.7%	8.7%	8.7%	8.7%	8.7%	8.7%
Interest Expense/Avg Debt		460.0%	27.1%	10.1%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Non-Operating Income/Sales	-2.9%	0.5%	0.4%	-0.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Effective Tax Rate	0.0%	0.0%	4.5%	4.5%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Minority Interest/After Tax Income	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Income/Sales	0.0%	0.0%	0.0%	0.0%	-6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ext. Items & Disc. Ops./Sales	1.7%	0.0%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pref. Dividends/Avg Pref. Stock		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Balance Sheet Assumptions:											
Working Capital Assumptions											
Ending Operating Cash/Sales	5.4%	10.7%	4.2%	16.4%	23.0%	15.0%	13.0%	11.0%	9.0%	7.0%	5.0%
Ending Receivables/Sales	8.2%	15.5%	14.7%	10.8%	11.5%	11.2%	11.0%	10.7%	10.5%	10.2%	10.0%
Ending Inventories/COGS	21.1%	26.7%	24.1%	25.0%	30.0%	28.5%	27.0%	25.5%	24.0%	22.5%	21.0%
Ending Other Current Assets/Sales	0.8%	1.0%	0.9%	1.4%	2.4%	2.2%	1.9%	1.7%	1.5%	1.2%	1.0%
Ending Accounts Payable/COGS	3.7%	17.1%	10.2%	7.6%	7.6%	8.2%	8.7%	9.3%	9.9%	10.4%	11.0%
Ending Taxes Payable/Sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ending Other Current Liabs/Sales	5.8%	15.0%	4.4%	3.6%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%
Other Operating Asset Assumptions											
Ending Net PP&E/Sales	35.7%	41.3%	28.0%	28.8%	39.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Ending Investments/Sales	2.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ending Intangibles/Sales	0.0%	0.0%	8.9%	8.5%	10.5%	9.6%	8.7%	7.8%	6.8%	5.9%	5.0%
Ending Other Assets/Sales	3.6%	3.9%	1.5%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Other Operating Liability Assumptions											
Other Liabilities/Sales	23.8%	11.6%	11.1%	7.6%	17.3%	7.4%	8.1%	8.8%	9.6%	10.3%	11.0%
Deferred Taxes/Sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Financing Assumptions											
Current Debt/Total Assets	0.0%	0.6%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Long-Term Debt/Total Assets	0.0%	0.0%	18.7%	25.8%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%	24.5%
Minority Interest/Total Assets	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Preferred Stock/Total Assets	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dividend Payout Ratio	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Exhibit 4**Revenue Drivers Projections**

Year	Rigs estimates		Oil Price		Gas Price	
	#	% change	\$/bbl	% change	\$/mbt	% change
2002	830		26.18		3.017	
2003	1037	24.93%	25.85	-1.28%	3.13	3.75%
2004	986	-4.92%	24.14	-6.62%	2.92	-6.71%
2005	965	-2.13%	23.42	-2.98%	2.88	-1.37%
2006	971	0.62%	23.64	0.94%	2.82	-2.08%
2007	977	0.62%	23.85	0.89%	2.91	3.19%

Revenue and Cost Projections

	2002	2003	2004	2005	2006	2007
Scenario 1 - High Oil Price						
REVENUE, \$ 000	523,700	668,538	610,062	579,819	597,742	586,389
% change		27.66%	-8.75%	-4.96%	3.09%	-1.90%
COGS	% of Sales	87.36%	85.89%	87.72%	87.72%	87.72%
Scenario 2 - Sell-side Analysts						
REVENUE, \$ 000	523,700	670,200	789,000	880,900	951,372	998,941
% change		27.97%	17.73%	11.65%	8.00%	5.00%
COGS	% of Sales	87.99%	83.99%	81.75%	81.75%	81.75%

Sensitivity Analysis

		Cost of equity	
		12.54%	14.26%
Scenario	High	\$10.15	\$8.44
	Analysts	\$15.79	\$12.89