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ROBERT SIMONS
ANTHONY DAVILA

Chemalite, Inc. (B)

Cash Flow Analysis

Bennett Alexander, a chemical engineer, founded Chemalite, Inc. in late 2002. The company was set up to manufacture and sell his latest patented invention, the Chemalite. The first year of operations was successful, allowing Chemalite's directors to declare a $10,000 dividend at the end of 2004. **Exhibit 1** presents the income statement and balance sheet for the year ended December 31, 2004.

During the meeting with the company shareholders, held in January 2005, Alexander was congratulated for the company's performance during its first year of operations. After much discussion, the shareholders approved moving the production facilities to a larger location to support expanding sales. They hoped that Chemalite could build market share before any competing product reached the market. They also approved expanding the product line to include new colors.

The shareholder meeting ended with a decision to meet during late March to review the performance of the company and study the projected financial statements for 2005.

To prepare for the March meeting, Alexander asked his accountant to provide him with the expected financial statements for the year ending December 31, 2005. Exhibit 1 reproduces the report that he received from the accountant. In addition to this report, the accountant provided the following notes:

1. According to our marketing people, sales during the year are expected to increase 150% as we continue to build market share. Half of this growth is expected to come from new wholesalers. Our limited experience with this channel indicates that even if they are supposed to pay in 30 days, the average is 40 days.

2. We will need to maintain a stock of finished goods to give the required service to wholesalers.

3. The average stock of raw materials is assumed to be $75,450.

4. The land and building for the new production facility will cost $850,000, of which $250,000 corresponds to the land. The facility will be operating at the beginning of July, its expected life is 10 years, and it will be depreciated using the straight-line method for accounting purposes and an accelerated method for tax purposes.

5. The seller of the facility will pass title on June 30 and receive half of the purchase price in cash and the other half in three equal annual installments beginning June 30, 2007.

Doctoral Candidate Anthony Davila prepared this case under the supervision of Professor Robert Simons as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

6. As agreed by the board, we will also need to purchase new, higher capacity machines. My understanding is that we will replace the machines that we purchased in June last year (our vendor claims their resale value is now very high). The selling price of the old machines is estimated to be $215,500. The new machines will cost $520,000. These cash transactions will take place in late June and the expected life of the new machines is 10 years.

7. Starting in July we will also buy insurance for the building, inventories, and business disruption. The cost of the insurance is $97,500 cash and it will be in force from July 2005 to December 2006.

8. In January 2005 we paid the 2004 cash dividend of $0.02 per share.

9. According to January's shareholders' meeting, 10% of 2005 net income will be distributed as dividends to existing shareholders.

10. As you told me, one of our shareholders needs to sell his shares due to personal problems. I have assumed that the company will repurchase his 20,000 shares at $1.30 per share.

11. Finally, I have assumed that the rest of our financing needs will be covered by long-term and short-term debt. We are now negotiating with the bank for a long-term, secured loan of $510,000 effective June 30 at 10% paid annually.

Alexander looked at the report from the accountant and the related assumptions. The net income was very attractive—increasing by over 400%. Undoubtedly the new production facility and the bigger machines were a good investment. But the amount of short term debt that he saw in the balance sheet was a matter of concern. He wondered whether this amount of financing was really needed. He knew that the shareholders would also have questions.

The first step was to understand where the cash was going and where it was coming from. The second step was to understand why such a good earnings forecast required so much debt.

Required

1. Prepare a proforma statement of cash flows for 2005 using the indirect method.
2. Prepare a proforma statement of cash flows for 2005 using the direct method.
3. What are the main sources and uses of cash revealed by your analysis?
4. What would you recommend to Bennett Alexander?

Exhibit 1 2005 Pro-forma Financial Statements

Balance Sheet as at December 31, 2004 and 2005

	December 31, 2004 (Actual)	December 31, 2005 (Pro-forma)
Assets		
Cash	$113,000	$ 9,490
Accounts receivable	69,500	139,530
Inventories-raw materials	55,000	75,450
Inventories-finished goods	— —	104,680[a]
Prepaid insurance	— —	65,000
Property, plant and equipment	212,500	1,120,000
Accumulated depreciation	(10,625)	(56,000)
Land	— —	250,000
Patent	100,000	75,000
Total assets	$539,375	$1,783,150
Liabilities and Owners' Equity		
Taxes payable	10,900	9,950
Short term debt	— —	200,000
Deferred income taxes	— —	26,730
Notes payable (10%)	— —	425,000
Long-term debt (10%)	— —	510,000
Dividends payable	10,000	12,000
Common stock	500,000	500,000
Retained earnings	18,475	125,470
Treasury stock	— —	(26,000)
Total liabilities and owners' equity	$539,375	$1,783,150

Income Statement for the years ended Dec. 31, 2004 and 2005

	December 31, 2004 (Actual)	December 31, 2005 (Pro-forma)
Sales	$754,500	$1,886,250
Material	(195,000)	(452,700)
Labor	(275,000)	(660,000)
Rent	(50,000)	(25,000)
Utilities	(30,000)	(82,000)
Depreciation	(10,625)	(61,625)
Gross margin	193,875	604,925
Advertising	(22,500)	(70,000)
Research and development	— —	(63,250)
Insurance	— —	(32,500)
Amortization of patent	(25,000)	(25,000)
Selling and administration expenses	(75,000)	(195,750)
Gain on sale of equipment	— —	24,250
Interest expense	(750)	(58,750)
Prototypes	(23,750)	---
Legal fees	(7,500)	— —
Income before taxes	39,375	183,925
Income taxes	(10,900)	(64,930)
Net income	$ 28,475	$118,995

[a] Finished goods inventory includes $5,000 of depreciation.