Examining the strategic location of south face mine

The strategic location of the South Face Mine, owned by Mountain Mining Canada Ltd (MMCL), catches the attention of Can-Do to make an offer for purchasing the mine. If our company successfully acquires it, the combination of better surface logistics and optimal location of new drift mines could provide an annual cost saving of up to $1. 5 million for 20 years. However, MMCL has closed the mine and currently been spending on closure and reclamation of it; undoubtedly MMCL would like to transfer those costs to us.

The purpose of this memorandum is to determine the walk-away point, which is the highest amount Can-Do would agree to offer in the negotiation with MMCL, with the use of data from the management budget provided by MMCL, the discounted cash flow model and sensitivity tests on various assumptions.

Given the data in the MMCL management budget with removal of costs which are not transferred to Can-Do or can be internalized[1], and assuming a 6% interest rate for discounting, the 15% contingency allowance used in MMCL implies an inflation rate of 2. 55%.

Having studied various assumptions, the sensitivity tests indicate the variance of short-term duration is the most important risk underlying as a 1-year extension of short-term costs reduces the value of acquisition by $6. 6 million from $15. 5 million to $8. 9 million (58% of original value). A 2-year extension further reduces the value by 6. 4 million to $2. 5 million (16% of original value).[2]

The recommended walk-away point would be $14 million, a value lower than the net values of acquisition calculated in most sensitivity tests excluding those with respect to short-term duration and estimated cost saving. It also means that an efficient cost control should be performed to avoid an extension of short-term cost and a failure to realize the estimated cost saving.

It is also worth noting that there are large discrepancies of cost items between the 2006 and 2005 budgets. A detailed review on financial data is suggested so as to find out any hidden problems or risks.

Introduction

The purchase of the South Face Mine, currently owned by Mountain Mining Canada Limited (MMCL), can provide Can-Do a very large reduction in operating cost of North Fork Mine, located adjacent to South Face Mine, by an estimated amount up to $1. 5 million annually for the next 20 years, attributed to the optimal location of new drift mines and the improved logistics.

However, it is expected that MMCL would require us to bear the closure and reclamation costs. Therefore, the net value of the acquisition is the value of cost saving net of the value of those additional costs.

By considering the data provided and computing the net value of acquisition, it comes up with the walk-away point, which is critical and crucial to our negotiation with MMCL. The remaining parts of this memorandum explain the determination of the walk-away point. In particular, the purpose of this study is to:

Review the financial data provided

Do sensitivity tests for assumptions with respect to the closure and reclamation costs

Set a reasonable walk-away point

Identify other possible risks for the determination of the walk-away point

There are different types of costs, including short-term costs which will be incurred within five years and long-term costs which will be incurred during the whole reclamation period. There are also salvage values of equipments remaining on site (i. e. Inventory Disposition), and they will accrue to Can-Do. Moreover, MMCL has included a 15% contingency allowance in its calculation.

From the table above, it is clearly observed that large discrepancies exist for most cost items between 2006 and 2005 budget, and this indicates a deficiency of the contingency allowance in 2005 to cover the adverse development of costs estimated from 2005 to 2006. It concerns us about the accuracy and reliability of the predictions. It is suggested a detailed review of financial data as well as other information related to the situation of the mine be conducted in order to discover any potential problems which may put our company at risk.

Data Adjustment

The data provided is subject to adjustments so as to calculate a more reasonable walk-away point. They include:

Removing costs not to be transferred from MMCL to Can-Do (e. g. severance costs)

Removing costs which could be realized from internalizing them in Can-Do (e. g. inspection costs)

Analysis: Methods & Assumptions

Contingency Allowance & Inflation Rate

MMCL has included a 15% contingency allowance in its budget while has not considered the time value of cost items. Assuming the allowance is totally for the inflation, the implied inflation rate that is equivalent to the 15% contingency allowance is found to be 2. 55% (using the Excel function â€Å“ goal seekâ€), after the data adjustment aforementioned.

Sensitivity Tests, Risks & Walk-away Point

To investigate the risks underlying, sensitivity tests have been performed to examine the uncertainties associated with the assumptions of cash flow projections (all with 0% contingency allowance).

Table 3: Sensitivity Tests

The table consists of the net value of the acquisition under different combinations of short-term duration, long-term duration, inflation rate and discount rate (Scenario Base and #1-10). From the table, it shows that under most scenarios the value of acquisition is around $14-15 million. Therefore, it would be appropriate and conservative to set $14 million as the walk-away point.

In addition, an extra sensitivity test on estimated cost saving are conducted (Scenario #11-12). When compared to Scenario #4, it demonstrates that a 10% decrease in cost saving causes the value of acquisition below $14 million. It implies a strong control is needed to monitor that the realized cost saving is close to the estimated one.

As shown in the tables, the short-term duration should be the key risk factor as an increase in it leads to a tremendous decrease in value (by comparing Scenario Base to Scenario #1-2 or Scenario #4 to Scenario #5-6). Can-Do should therefore pay much attention to the extension of short-term cost projections.

Conclusions and Recommendations

Based upon the modified cost budget and assuming a 6% discount rate, a 15% contingency allowance implies an inflation rate of 2. 55%. Also, after a study of various assumptions by sensitivity tests, a walk-away point of $14 million will be sufficient for the acquisition of South Face Mine. However, a few issues have to be highlighted:

The large variances between the 2006 and 2005 budget raise concerns of the validity and reliability of the estimated values in the budget.

The implied inflation rate of 2. 55% is less than the lower bound of inflation rate projected by our economists.

The net value of acquisition is very responsive to the duration of short-term costs according to the results of sensitivity tests.

The determination of walk-away point is based on the assumption that $1. 5 million can be saved annually over 20 years. A slight decrease in it can be enough to cause an overall loss for the acquisition provided that the final purchase price of South Face Mine is close to the walk-away point.

For some costs including water treatment operation/maintenance costs and salaries of accountant/environmental person, they may be internalized to a certain extent; yet they are not removed for the determination of walk-away point due to their specialty. This also provides a relatively conservative walk-away point implicitly.

It is recommended that a detailed investigation should be carried out to verify the estimated costs in the budget as well as to locate any other problems. It is also proposed that an efficient cost control should be established in order to keep the cost be aligned with the prediction if Can-Do successfully purchases the South Face Mine from MMCL