



Minxcon
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KIBO MINING
PLC

Minxcon Projects (Pty) Limited

Rukwa Coal to Power Project
Definitive Mining Feasibility Study
Stage 1, Phase 1: Concept Study

QUALIFIED PERSON DECLARATION

I, Daan van Heerden, in the capacity of Qualified Person do hereby certify that:-

1. To the best of my knowledge, information and belief, the Report contains all scientific and technical information required to be disclosed to make the Report not misleading.
2. The facts presented in the Report are correct to the best of my knowledge.
3. The analyses and conclusions are limited only by the reported forecasts and conditions.
4. I have no present or prospective interest in the subject property or asset.
5. My compensation, employment or contractual relationship with the Commissioning Entity is not contingent on any aspect of the Report.
6. I have no bias with respect to the assets that are the subject of the Report, or to the parties involved with the assignment.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'D van Heerden', with a large circular flourish at the start and a horizontal line extending to the right.

D v HEERDEN
B.Eng (Mining), M.Comm. (Bus. Admin.)
Pr. Eng., FSAIMM, AMMSA
DIRECTOR

Qualified Person

D van Heerden (Director, Minxcon):
B.Eng. (Min. Eng.), M.Comm. (Bus. Admin.),
ECSA, FSAIMM, AMMSA

Authors

FJJ Fourie (B.Eng Mining); SAIMM

Jaco Burger (Mining Engineer)
Pr.Eng. Mining, Fin. Management, MMC, MSAIMM, ECSA

De Wet Dreyer (Mechanical Engineer)
B. Eng. Mechanical

NJ Odendaal (Director, Minxcon):
BSc (Geol.), BSc (Min. Econ.), MSc. (Min. Eng.),
Pr. Sci. Nat., FSAIMM, MGSSA, MAusIMM

Reviewed by Director

D van Heerden (Director, Minxcon):
B.Eng. (Min. Eng.), M.Comm. (Bus. Admin.),
ECSA, FSAIMM, AMMSA

DISCLAIMER AND RISKS

This Report was prepared by Minxcon (Pty) Ltd (“Minxcon”). In the preparation of the Report, Minxcon utilised information relating to operational methods and expectations provided to them by various sources. Where possible, Minxcon has verified this information from independent sources after making due enquiry of all material issues that are required in order to comply with the requirements of the SAMREC Code. Minxcon and its directors accept no liability for any losses arising from reliance upon the information presented in this Report.

OPERATIONAL RISKS

The business of mining and mineral exploration, development and production by their nature contain significant operational risks. The business depends upon, amongst other things, successful prospecting programmes and competent management. Profitability and asset values can be affected by unforeseen changes in operating circumstances and technical issues.

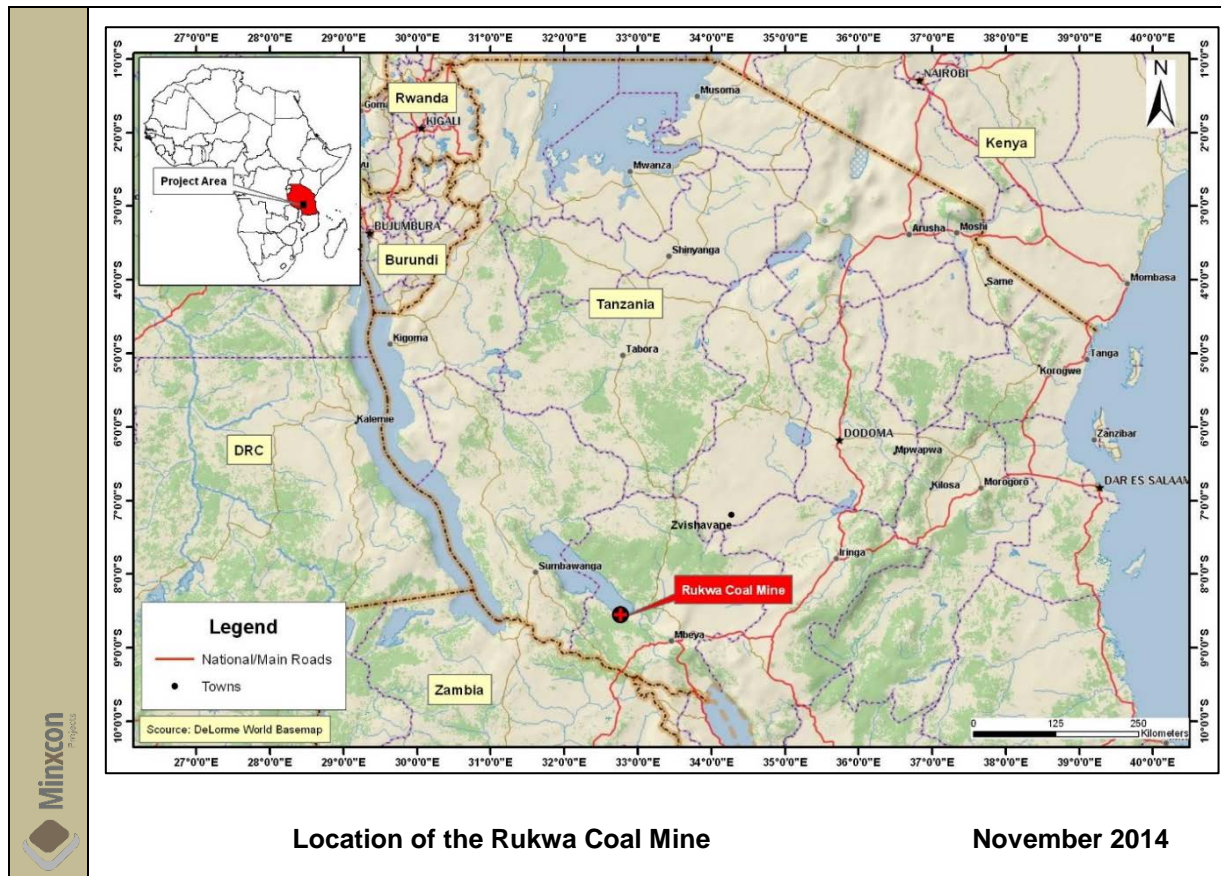
POLITICAL AND ECONOMIC RISK

Factors such as political and industrial disruption, currency fluctuation and interest rates could have an impact on future operations, and potential revenue streams can also be affected by these factors. The majority of these factors are, and will be, beyond the control of any operating entity.

1 EXECUTIVE SUMMARY

Minxcon (Pty) Ltd (“Minxcon”) was commissioned by Kibo Mining Plc (“Kibo” or the “Client”) to compile a Definitive Mining Feasibility Study (“DMFS”) on the Rukwa Coal to Power Project (“RCPP” or “Project”). The intended Rukwa Coal Mine is located in south-western Tanzania, approximately 70 km northwest of the regional capital of Mbeya. This Report forms part of the total DMFS which aims to design and plan the establishment and construction of the Rukwa Coal Mine.

Location of the Rukwa Coal Mine



Purpose:

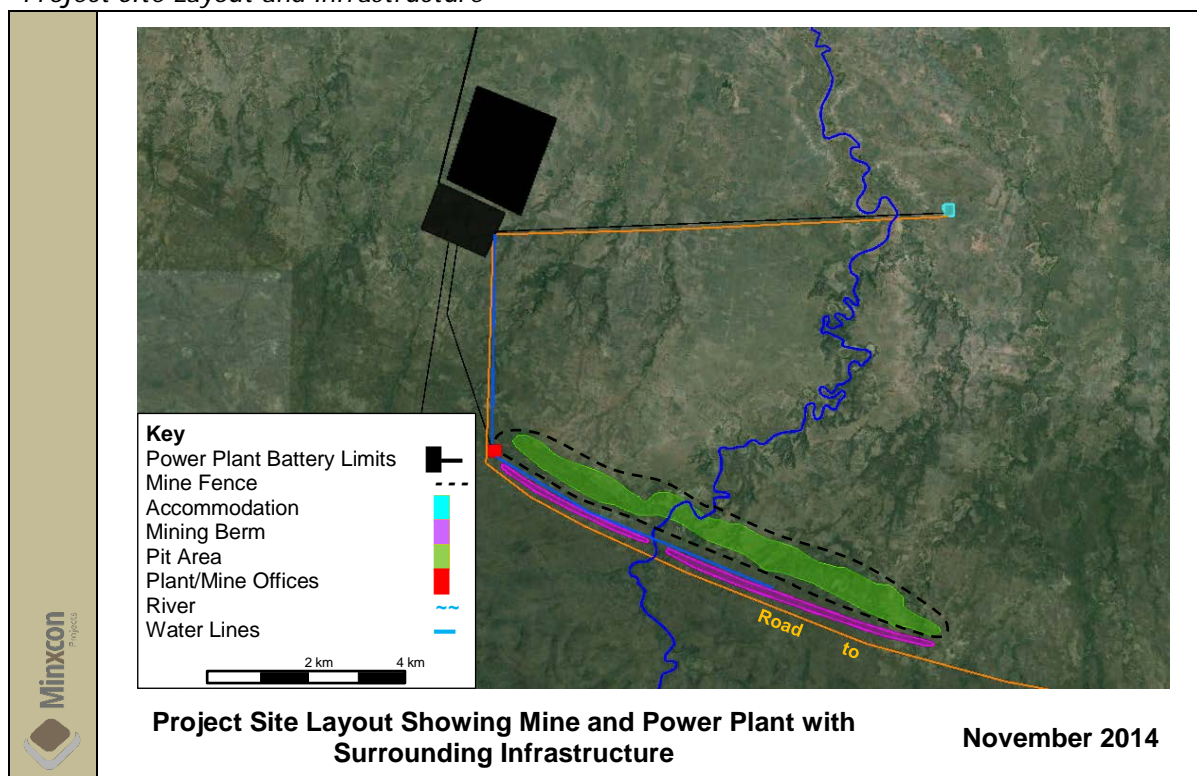
The main deliverable of Phase 1, Stage 1 of the DMFS, the “Concept Study Report” is a report, providing an independent assessment on an order of magnitude level of detail. The execution of a Mining Scoping Study, as part of an integrated project development process for the RCPP, informed by the independent technical report on the Rukwa Coal Resource, as well as the information contained in the RCPP Information Memorandum (“Summary of Investment Opportunity”). Minxcon made recommendations to assist Kibo to complete the Definitive Feasibility Study (“DFS”) to an appropriate level of detail.

Battery Limits:

Referring to the figure below, the capital footprint and Battery Limits for the mine and plant includes the opencast pit, mining and processing equipment, mining and plant buildings, all mining stockpiles, coal product conveyor to power plant, electrical supply to and reticulation within the mine and plant area, excess water pipeline to power plant, staff accommodation and communication systems to and reticulation within the mine and plant area.

The power plants Battery Limits (excluded from Minxcon's Battery Limits) include everything inside their security fence or boundary, electrical power lines, ash storage dams as well as a water line from Lake Rukwa.

Project Site Layout and Infrastructure



The mine will be responsible for the construction of all items that fall within its capital footprint as well as various infrastructure leading up to the new envisioned power plant.

Resources:

Resource classification and reporting has been conducted in accordance with the requirements of NI 43-101 by Geological Exploration Mining Evaluation Consulting Services (Pty) Limited ("GEMECS") who has reviewed the coal properties in accordance to the terms, definitions and guidelines provided in "A Standardized Coal Resource/Reserve Reporting System for Canada". The estimated Coal Inferred and Indicated Resources are shown in the following table.

Indicated and Inferred Resources and Raw Air-Dried Qualities (as Estimated on 19 April 2012)

| Resource Category | Seam | Tonnes Mt | Seam Thickness m | RD kg/m ³ | ASH % | IM % | VM % | CV MJ/kg | TS % |
|-------------------|------|--------------|---------------------|-------------------------|--------------|-------------|--------------|--------------|-------------|
| Indicated | S4 | 2.17 | 1.14 | 1.62 | 40.60 | 5.60 | 24.40 | 15.50 | 1.80 |
| Indicated | S3U | 6.92 | 2.04 | 1.61 | 41.90 | 5.60 | 23.60 | 15.00 | 1.21 |
| Indicated | S3L | 12.63 | 2.3 | 1.63 | 39.50 | 6.10 | 24.20 | 15.60 | 1.29 |
| Indicated | S2 | 23.43 | 3.45 | 1.58 | 35.30 | 6.90 | 24.40 | 16.70 | 1.29 |
| Indicated | S1U | 7.34 | 2.48 | 1.63 | 37.20 | 6.10 | 23.20 | 16.40 | 0.74 |
| Indicated | S1L | 17.4 | 2.92 | 1.62 | 36.40 | 6.30 | 23.20 | 16.50 | 0.87 |
| Indicated | S0 | 1.44 | 1.08 | 1.68 | 36.70 | 6.20 | 23.30 | 16.40 | 1.09 |
| Indicated | | 71.33 | 2.76 | 1.61 | 37.34 | 6.35 | 23.85 | 16.22 | 1.13 |
| Inferred | S4 | 1.38 | 1.31 | 1.58 | 41.00 | 6.10 | 24.20 | 15.10 | 1.74 |
| Inferred | S3U | 2.94 | 2.24 | 1.66 | 43.20 | 5.20 | 23.20 | 14.70 | 1.10 |
| Inferred | S3L | 3.86 | 2.27 | 1.67 | 41.40 | 5.70 | 23.40 | 15.00 | 1.18 |
| Inferred | S2 | 7.94 | 3.42 | 1.59 | 35.10 | 6.70 | 23.80 | 16.90 | 1.21 |
| Inferred | S1U | 6.5 | 2.05 | 1.66 | 38.60 | 5.70 | 23.20 | 16.00 | 0.81 |
| Inferred | S1L | 12.83 | 3.15 | 1.61 | 35.70 | 6.00 | 23.50 | 17.00 | 0.98 |
| Inferred | S0 | 2.6 | 1.06 | 1.59 | 34.60 | 7.10 | 25.50 | 16.90 | 1.45 |
| Inferred | | 38.05 | 2.65 | 1.62 | 37.34 | 6.08 | 23.64 | 16.35 | 1.09 |

| Resource Category | Seam | Tonnes Mt | Seam Thickness m | RD kg/m ³ | ASH % | IM % | VM % | CV MJ/kg | TS % |
|-------------------|------|---------------|---------------------|-------------------------|--------------|-------------|--------------|--------------|-------------|
| Total | S4 | 3.55 | 1.21 | 1.60 | 40.76 | 5.79 | 24.32 | 15.34 | 1.78 |
| Total | S3U | 9.86 | 2.10 | 1.62 | 42.29 | 5.48 | 23.48 | 14.91 | 1.18 |
| Total | S3L | 16.49 | 2.29 | 1.64 | 39.94 | 6.01 | 24.01 | 15.46 | 1.26 |
| Total | S2 | 31.37 | 3.44 | 1.58 | 35.25 | 6.85 | 24.25 | 16.75 | 1.27 |
| Total | S1U | 13.84 | 2.28 | 1.64 | 37.86 | 5.91 | 23.20 | 16.21 | 0.77 |
| Total | S1L | 30.23 | 3.02 | 1.62 | 36.10 | 6.17 | 23.33 | 16.71 | 0.92 |
| Total | S0 | 4.04 | 1.07 | 1.62 | 35.35 | 6.78 | 24.72 | 16.72 | 1.32 |
| Total | | 109.38 | 2.72 | 1.61 | 37.34 | 6.26 | 23.78 | 16.26 | 1.12 |

Note:

1. Resources were estimated by GEMECS (Pty) Ltd.
2. RD: relative density.
3. ASH: ash.
4. IM: inherent moisture.
5. VM: volatile matter.
6. CV: calorific value.
7. TS: total sulphur.

Option Selection:

Four different options were investigated during the mining concept study which will be further analysed in Phase 2 of Stage 1 of the DMFS. The differences in the 4 options are mainly applicable to alteration in mining operating cost and mining capital costs, as well as 2 different plant options. The difference in the 4 options is detailed in section 7 of the report.

- Option 1 (Contractor Mining, Crusher-Only);
- Option 2 (Contractor Mining, De-stoning Plant);
- Option 3 (Owner Operated Mining, De-stoning Plant); and
- Option 4 (Surface Miner, De-stoning Plant excl Crusher).

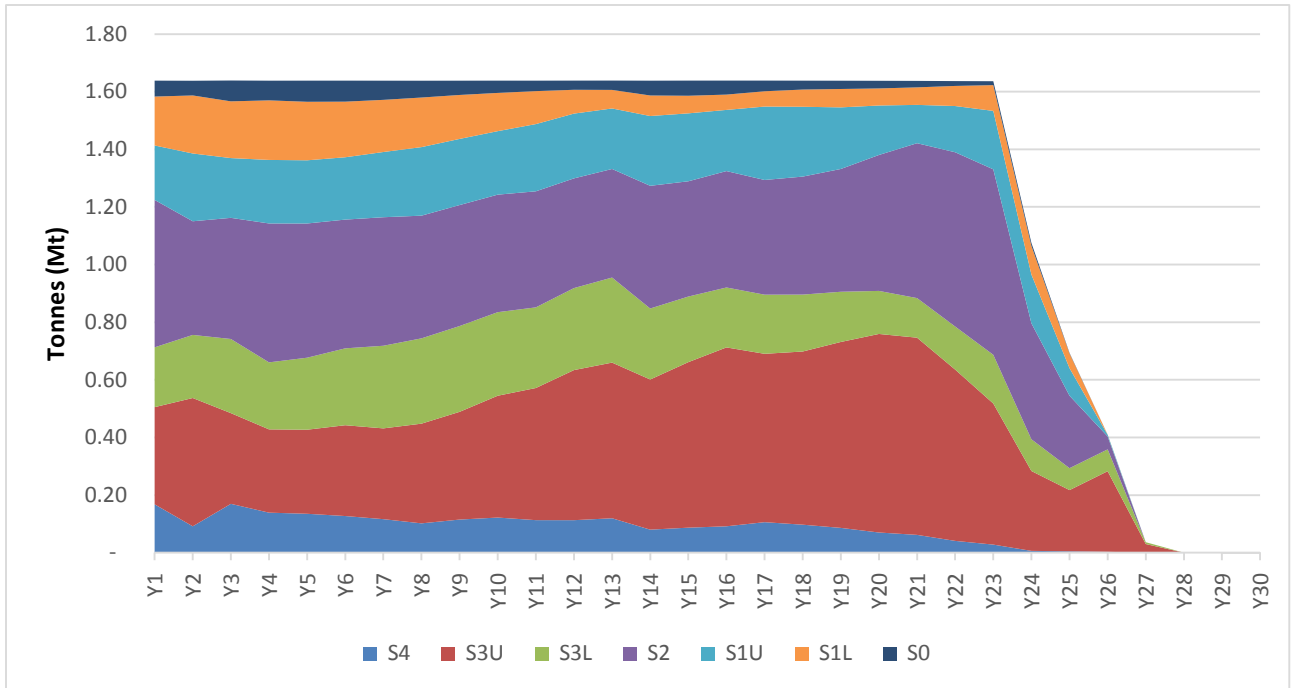
All these options described above were valued through Minxcon's discounted cash flow ("DCF") model to demonstrate the viability and justifiability of extraction of coal under a defined set of realistically-assumed modifying factors.

Mining:

The mining production strategy and target was focused on the anticipated coal power plant requirements. Two options were investigated, a conventional truck and shovel open cast strip mining operation and a second option utilising surface miners whereby coal is cut from the footwall similar to the way coal is cut by a continuous miner in underground coal mining operations. Contractor and owner operated options were also investigated. All options were modelled using the same production profile but different costs were applied during financial valuation.

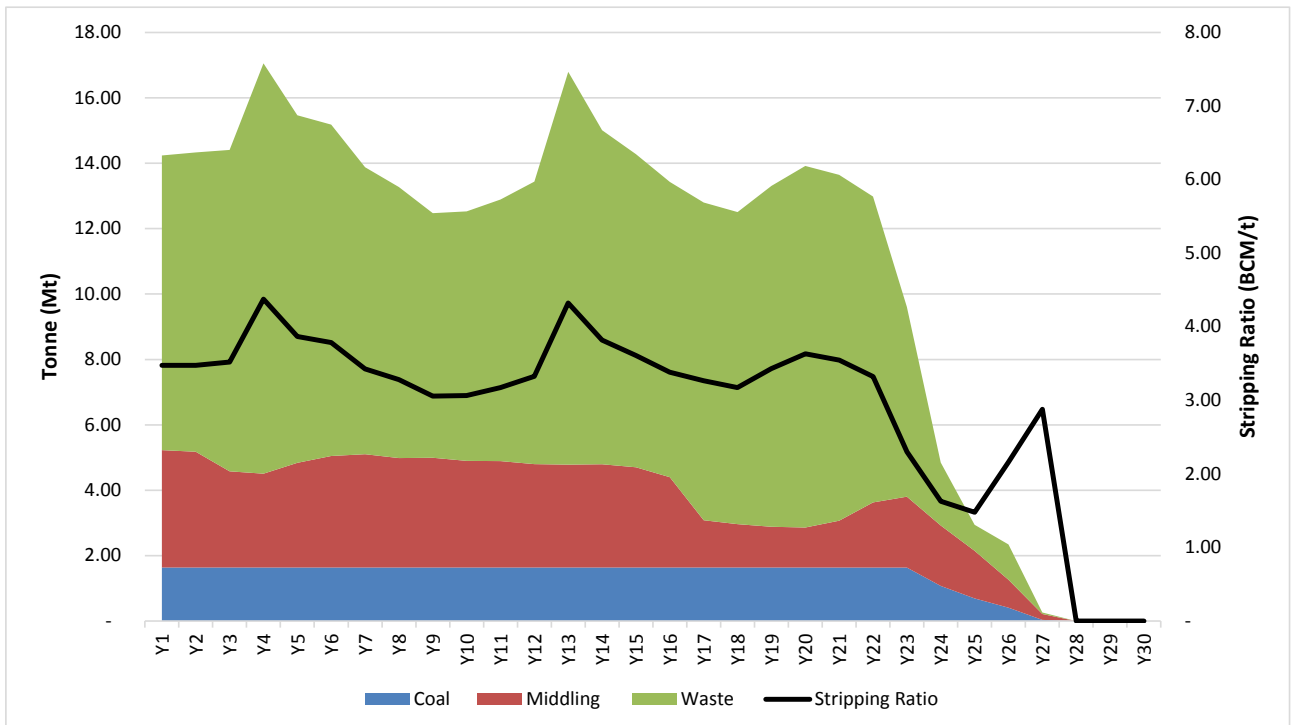
There exist 7 different coal seams for the Rukwa Coal Mine and illustrated in the figure below is the different production profiles for each coal seam delivered to the coal plant. It is clear from the figure that a constant coal production over the total Life of Mine ("LoM") can be achieved.

Rukwa Coal Mine Coal Production Delivered to the Plant



The Total diluted production profile for the operation is illustrated below. This profile was achieved after applying the scheduling strategy and the modifying factors in Gemcom Mineshed™.

Rukwa Coal Mine Production Profile - Diluted



A summary of the total production for the Rukwa Coal Mine is detailed in the table below.

Rukwa Coal Mine Production Summary

| Description | Units | Value |
|-----------------|-------------|--------|
| Total Coal | Mt | 39.89 |
| Average ASH | % | 37.18 |
| Average CV | % | 15.08 |
| Average IM | % | 6.05 |
| Average TS | % | 1.03 |
| Average VM | % | 22.63 |
| Total Waste | Mt | 287.91 |
| LoM | Years | 27 |
| Stripping Ratio | bcm/coal | 3.33 |
| Stripping Ratio | twaste/coal | 7.22 |

Processing:

In order to produce coal which is acceptable for a power plant, two processing scenarios were developed:-

- **De-Stoning Scenario:** wash coal through jigs to produce a 16 MJ/kg CV coal product that can be fed into a low quality coal power station. An estimated overall coal yield of 88.7% was estimated based on washability data.
- **Crushing-Only:** For this scenario, no de-stoning or washing plant will be required. The power plant will be fed coal with an average CV of 15 MJ/kg.

For both processing options, it was calculated that approximately 136 ktpm of RoM must be mined to produce sufficient coal to feed the power plant to produce an output of 300 MW.

CAPEX Summary:

All costs were sourced from actual quotations as provided by the Original Equipment Manufacturers ("OEMs") and/or from retail companies. Where quotations could not be sourced, historical costs and quotations were escalated to align with the current financial year and market inflation figures. Detail about the capital is described in the relevant mining and plant reports.

Initial Capital Cost Summary

| Initial Capital Expenditure | Year 0 | Option 1 | Option 2 | Option 3 | Option 4 |
|-------------------------------------|-------------|----------------------|-------------------------|--------------------|----------------------------|
| | | Contractor & Crusher | Contractor & De-Stoning | Owner & De-Stoning | Surface Miner & De-Stoning |
| Infrastructure Capital | Unit | | | | |
| Office area | USDm | 2.7 | 2.7 | 2.7 | 2.7 |
| Housing | USDm | 1.7 | 1.7 | 1.7 | 1.7 |
| Plant | USDm | 0.2 | 0.2 | 0.2 | 0.2 |
| Fleet | USDm | 1.2 | 1.2 | 21.7 | 26.0 |
| Equipment | USDm | 19.3 | 19.3 | 19.5 | 19.5 |
| Civil | USDm | 9.6 | 9.6 | 9.6 | 9.6 |
| De-watering | USDm | 0.4 | 0.4 | 0.4 | 0.4 |
| Electrical | USDm | 0.1 | 0.1 | 0.1 | 0.1 |
| Contingency (20%) | USDm | 7.0 | 7.0 | 11.2 | 12.0 |
| Total Infrastructure Capital | USDm | 42.0 | 42.0 | 67.0 | 72.1 |
| Plant Capital | | | | | |
| Plant Capital | USDm | 3.2 | 16.7 | 16.7 | 14.3 |
| Contingency (20%) | USDm | 0.6 | 3.3 | 3.3 | 2.9 |
| Total Plant Capital | USDm | 3.8 | 20.0 | 20.0 | 17.1 |
| Total Initial Capital | USDm | 45.8 | 62.0 | 87.0 | 89.1 |

It was assumed that the fleet would be replaced every five years at 70% of original fleet cost in the capital schedule for Option 3 and Option 4.

Operating Cost ("OPEX") Summary:

Mining Opex:

The Minxcon activity-based operating cost model was used to calculate first-principle operating cost for the study. The operating cost estimation determined the unit cost rates based on the cost drivers from the operating cost model and include provisions for repair and replacements.

Mining Cost Inputs

| Variable Cost | | Option 1 + Option 2 | Option 3 | Option 4 |
|------------------------|-----------|---------------------|----------|----------|
| Waste Tonnes | USD/t | 1.23 | 1.10 | 1.10 |
| Middling Tonnes | USD/t | 1.69 | 1.58 | 1.00 |
| Coal Tonnes | USD/t | 1.69 | 1.58 | 1.00 |
| Fixed Cost | | | | |
| Fixed P&G Monthly Cost | USD/month | 151,098 | 148,125 | 148,125 |

Plant OPEX:

The de-stoning plant OPEX summary is shown in the following table. The following cost assumptions apply:-

- Power costs are estimated based on a power consumption of 364 mWh with an installed power of about 960 kW.
- yearly maintenance and stores costs are estimated as about 6% of the total plant capital;
- flocculant consumption of 0.05 kg/t; and
- other costs are made up of laboratory charges, safety, training and office.

Destoning Plant Processing OPEX Summary at 136 ktpm

| Fixed/Variable | Item | USD'000/month | USD/t |
|----------------|------------------------------|---------------|-------------|
| Fixed | Labour | 84.00 | 0.62 |
| | Power Fixed | 1.09 | 0.01 |
| | Other | 12.48 | 0.09 |
| | Sub Total | 97.57 | 0.72 |
| Variable | Power Variable | 33.49 | 0.25 |
| | Flocculant | 2.40 | 0.02 |
| | Plant Maintenance and Stores | 91.37 | 0.67 |
| | Sub Total | 127.26 | 0.94 |
| Total | | 224.83 | 1.65 |

The crushing-only scenario labour requirements and OPEX summary are shown in the following table. The following cost assumptions apply:-

- Power costs are estimated based on a power consumption of 99 mWh with an installed power of about 290 kW.
- Yearly maintenance and stores costs are estimated as about 6% of the total plant capital.
- Other costs are made up of laboratory charges, safety, training and office.

Crushing Only Processing OPEX Summary at 136 ktpm

| Fixed/Variable | Item | USD'000/month | USD/t |
|----------------|------------------------------|---------------|-------------|
| Fixed | Labour | 40.07 | 0.29 |
| | Power Fixed | 0.79 | 0.01 |
| | Other | 6.16 | 0.05 |
| | Sub Total | 47.02 | 0.35 |
| Variable | Power Variable | 8.63 | 0.06 |
| | Plant Maintenance and Stores | 38.08 | 0.28 |
| | Sub Total | 46.71 | 0.34 |
| Total | | 93.73 | 0.69 |

A summary of the OPEX over the LoM reported for the Rukwa coal operations, which consists of plant and mining operating costs are displayed in the following table. The costs are displayed per total tonne as well as per recovered coal product tonne. Rukwa has a fully-allocated cost of between USD15.3/recovered tonne to USD18.5/recovered tonne subject to the option investigated.

OPEX Summary over LoM

| Item | Unit | Option 1 | Option 2 | Option 3 | Option 4 |
|-----------------------------------|----------------------------|----------------------|-------------------------|--------------------|----------------------------|
| | | Contractor & Crusher | Contractor & De-stoning | Owner & De-stoning | Surface Miner & De-stoning |
| Net Turnover | USD/Total tonne | 2.9 | 3.2 | 3.2 | 3.2 |
| Mine Cost | USD/Total tonne | 1.53 | 1.53 | 1.09 | 1.03 |
| Plant Costs | USD/Total tonne | 0.09 | 0.24 | 0.24 | 0.19 |
| Direct Cash Costs (C1) | USD/Total tonne | 1.6 | 1.8 | 1.3 | 1.2 |
| CAPEX* | USD/Total tonne | 0.1 | 0.2 | 0.5 | 0.6 |
| Production Costs (C2) | USD/Total tonne | 1.8 | 2.0 | 1.8 | 1.8 |
| Royalties | USD/Total tonne | - | - | - | - |
| Fully Allocated Costs (C3) | USD/Total tonne | 1.8 | 2.0 | 1.8 | 1.8 |
| All-in Cost Margin | % | 39% | 38% | 43% | 45% |
| EBITDA** | USD/Total tonne | 1.3 | 1.4 | 1.9 | 2.0 |
| EBITDA Margin | % | 44% | 45% | 59% | 62% |
| Coal Recovered | t | 37,897,531 | 35,025,297 | 35,025,297 | 35,025,297 |
| Net Turnover | USD/Recovered tonne | 25.0 | 30.0 | 30.0 | 30.0 |
| Mine Cost | USD/Recovered tonne | 13.2 | 14.3 | 10.2 | 9.6 |
| Plant Costs | USD/Recovered tonne | 0.8 | 2.3 | 2.3 | 1.8 |
| Direct Cash Costs (C1) | USD/Recovered tonne | 14.0 | 16.6 | 12.4 | 11.4 |
| CAPEX | USD/Recovered tonne | 1.3 | 1.9 | 4.7 | 5.2 |
| Production Costs (C2) | USD/Recovered tonne | 15.3 | 18.5 | 17.2 | 16.5 |
| Royalties | USD/Recovered tonne | - | - | - | - |
| Fully Allocated Costs (C3) | USD/Recovered tonne | 15.3 | 18.5 | 17.2 | 16.5 |
| EBITDA* | USD/Recovered tonne | 11.0 | 13.4 | 17.6 | 18.6 |

Notes:

- *CAPEX: Capital Costs.
- ** EBITDA excludes capital expenditure.
- Numbers may not add up due to rounding.
- All-in Cost Margin = (Net Turnover - Fully Allocated Cost)/Net Turnover.
- Total tonne - Includes Run of Mine ("RoM") and Waste tonnes.
- Recovered tonnes - Final product post plant.

Valuation:

Valuation Summary

| Item | Unit | Option 1 | Option 2 | Option 3 | Option 4 |
|------------------------------------|--------------------|----------------------|-------------------------|--------------------|----------------------------|
| | | Contractor & Crusher | Contractor & De-stoning | Owner & De-stoning | Surface Miner & De-stoning |
| NPV* @ 0% | USD million | 257 | 282 | 314 | 330 |
| NPV @ 5% | USD million | 127 | 136 | 148 | 157 |
| NPV @ 5.7% | USD million | 116 | 123 | 133 | 141 |
| NPV @ 10% | USD million | 68 | 68 | 71 | 76 |
| NPV @ 15% | USD million | 37 | 33 | 30 | 34 |
| NPV @ 20% | USD million | 18 | 12 | 6 | 9 |
| IRR | % | 30% | 25% | 22% | 22% |
| All-in Cost Margin | % | 39% | 38% | 43% | 45% |
| Peak Funding Requirement | USD million | 46 | 62 | 87 | 89 |
| Payback | Years | 3.9 | 4.6 | 4.7 | 4.5 |
| Incentive Coal Price to Break Even | USD/tonne | 15 | 18 | 17 | 17 |

Notes:

- *NPV: nett present value.

In generating the financial model and deriving the valuations, the Free Cash Flow to Company - DCF valuation was set up in calendar years ending December. A discount rate of 5.73% (in real terms) was calculated for the discount factor, but the NPV was also shown for a range of discount rates. The full intrinsic value of the operation was reported - no attributable value was calculated. The coal prices were sourced from the client and are based on the expected price Rukwa will receive from the power plant that would start operations in parallel with the mine. For the purpose of the financial model the coal prices were constant throughout the LoM.

Coal Consensus Forecast

| Commodity | Unit | Options | LoM |
|----------------------|-------|------------|-----|
| Coal (CV = 15 MJ/kg) | USD/t | 1 | 25 |
| Coal (CV = 16 MJ/kg) | USD/t | 2, 3 and 4 | 30 |

Source: Kibo (Oct 2014)

The following conclusions were reached regarding the Rukwa Mine Concept Study:-

- The Project investigated is financially feasible for all the options investigated.
- At a 5.7% real discount rate the best-estimated NPV ranges from USD116 million to USD141 million.
- The incentive breakeven coal price ranges between USD15 and USD18 per product tonne.
- Rukwa has an all - in cost margin of between 38% and 45% that is high compared to other coal mines.
- All-in cost margins of above 25% are considered as healthy.
- Reasons for the high all-in cost margin is:-
 - Low operating costs as a result of the proposed mining method and shallow orebody;
 - Small sustaining capital expenditure; and
 - Fixed coal price as received from power plant.
- The high all-in cost margin is an indication of the robustness of the Project.
- A capital investment of between USD46 million and USD89 million is required to fund the operation subject to the option investigated.
- The payback period for the Project is between 3.9 and 4.7 years.
- The Project is most sensitive to the coal price and operating cost.
- The Project has a fully-allocated cost of between USD15/recovered tonne to USD18/recovered tonne subject to the option investigated.

Recommendations for Phase 2 Study:

Mining:

- Rehabilitation planning process and the associated cost.
- Explosives availability
- Mining equipment selection options
- Align mining production schedule to the Power plant requirements

Plant:

- Bulk sampling and further metallurgical test work will be required for both de-stoning and power plant design requirements.
- Coal and host rock hardness characteristics needs to be determined.

Engineering and Infrastructure:

- The schedule of the new access road should be aligned with that of the power station to ensure that all key dates are met. Alternatively, the upgrading of existing roads leading to the project area should be investigated.