DESKTOP REPORT ON THE MASOSO LIMESTONE CLAIMS

Background

The Masoso Limestone claims are located in the Masoso Communal Lands, 12 km west of Rushinga Township and comprise four blocks of claims covering a total of 470 hectares. The four claims blocks are registered in the name of Broken Hill Resources (Pvt) Limited. The Limestone covered by these claims blocks is suitable for cement production, hydrated lime for water purification, agricultural lime, and metallurgical purposes.

These blocks of claims contain a total estimated 193 million tonnes of limestone.



Location and accessibility

The Masoso limestone claims are located in the Masoso Communal Lands of Mount Darwin District, Mashonaland Central Province, and are situated approximately 214 km northeast of Harare by road. The limestone claims can be reached from Harare by taking the Harare-Bindura highway, then the Bindura-Mount Darwin road, and in Mount Darwin taking the Rushinga road for about 48 km before turning left into a gravel road that is followed for about 9 km to reach the claims area. Only 9 km of the total distance is gravel road with the rest being wide tarred roads in good condition.

Mineral property rights

The four blocks of limestone claims are registered in the name of Broken Hill Resources (Pvt) Limited. The claims information is shown on the table below.

| Block | | | | |
|-------|-----------|--------|---------|----------|
| No. | Size (Ha) | Beacon | Easting | Northing |
| А | 90 | А | 379987 | 8161816 |
| | | В | 380330 | 8161897 |
| | | С | 381052 | 8161524 |
| | | D | 381240 | 8161649 |
| | | Е | 381586 | 8161485 |
| | | F | 380132 | 8160760 |
| С | 80 | А | 383050 | 8162347 |
| | | В | 383600 | 8162628 |
| | | С | 384105 | 8162739 |
| | | D | 383380 | 8163116 |
| | | Е | 383085 | 8163529 |
| | | F | 382726 | 8163408 |
| | | G | 383027 | 8163226 |
| D | 150 | А | 385110 | 8163992 |
| | | В | 386366 | 8163958 |
| | | С | 386204 | 8165540 |
| | | D | 385446 | 8165390 |
| E | 150 | А | 386366 | 8163958 |
| | | В | 386980 | 8163972 |
| | | С | 387195 | 8164807 |
| | | D | 387184 | 8165072 |
| | | Е | 387463 | 8165084 |
| | | F | 387480 | 8165581 |
| | | G | 387480 | 8165581 |

The Masoso limestone deposits

The Masoso limestone deposits are part of a sequence of laterally extensive limestone horizons occurring within the Rushinga Metamorphic Suite, around Rushinga Township and occur intermittently all the way to the Rogo-Nyadzundzu range of hills near Nyamapanda border town. The Rushinga Metamorphic Suite is a Proterozoic sequence of paragneisses and migmatites that have been extensively folded and deformed and forms part of the Zambezi and Mozambique orogenic belts.

The limestone is white to pink in colour and essentially dolomitic in composition. Texture is massive and coarsely granoblastic. Accessory minerals include muscovite and lesser abundances of quartz and feldspar. In the Rushinga area average thickness of the limestone horizons is 30 m, whereas in the Nyamapanda area its 150 m.

| Block | Surface area | Limestone | Limestone | Tonnage |
|-------|-----------------------------|---------------|-----------|-------------|
| | covered by | thickness (m) | specific | |
| | limestone (m ²) | | gravity | |
| А | 557,196 | 30 | 2.6 | 43,461,276 |
| С | 287,616 | 30 | 2.6 | 22,434,022 |
| D & E | 1,629,145 | 30 | 2.6 | 127,073,308 |
| Total | | | | 192,968,607 |

Estimated limestone tonnages

Opportunities

- 1. Agriculture has always been the mainstay of the Zimbabwe economy until a few years back when there was a dip in productivity. In the near future it will rebound again and as a result limestone will play a significant role in the economy. Liming of soils is needed due to excessive use of ammonium nitrate fertilizers.
- 2. The City of Harare and all other towns in Zimbabwe currently import hydrated lime for water purification from Ndola Lime in Zambia. Since the cost of limestone at the point of use is largely influenced by transportation costs, the Masoso limestone deposits will certainly represent a much lesser expensive source of hydrated lime for water treatment.

- 3. The much talked about new capital city located at Mount Hampden is slowly taking shape and planned construction projects in and around the new capital city will require vast quantities of cement.
- 4. The Masoso limestone deposit can be a source of high-calcium limestone used to provide even burning and emissions control for coal-fired power plants. Although the Masoso deposit is not close to any existing power plant, there is bound to be huge demand for such limestone usage in the near future as new power plants come on stream.

Competition

There will always be competition from existing cement and lime producers. The Masoso limestone deposit is ideally placed to service Harare due to its closer proximity to the market. Kaya Cement's Sternblick limestone deposit in Harare is almost depleted and the company is presently mining limestone from the Mbubu deposit in the Mutawatawa area and trucking it to Harare for a distance of 190 km. Masoso limestone deposit is 214 km from Harare, which is comparable to the distance from Harare of Kaya's Mbubu limestone deposit.







