

A Recipe for Success

By Peter Walker, Consulting Geologist

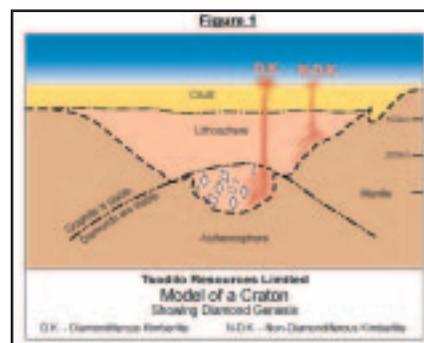
Tsodilo is exploring in Botswana for primary diamonds on the southern extension of the Angola/Congo craton. Its concession area covers all of the craton in Botswana. Dr. Andy Moore is the technical director and has all the requisite training, skills and experience in finding kimberlites below the Kalahari cover. Officers and insiders own more than 50% of the shares. The diamond market is buoyant and structural changes to the downstream industry favour new producers. Results to date are positive and within the next 12-month period most of the model's possibilities will have been tested.

Favourable geology for diamond explorers are on sections of the earth's crust called

"Cratons" where thick lithospheric mantle roots intersect with the diamond stability field at depths greater than some 180 kilometres.

Kimberlite is a volcanic intrusive rock from deep within the mantle. Finding a kimberlite is only the first step in the exploration for diamonds. When a kimberlite has tapped the diamond stability zone AND has moved through the surface crust quickly enough so that the contained diamonds do not transform back to graphite, then the explorer can begin to hope that the new kimberlite he has found may have payable mining grades.

Tsodilo is exploring the southern part of the Congo craton, near a known cluster of kimberlites, and has recently drilled into two



very large kimberlites, called A12 & A37. Micro-diamond analysis results from samples of both A12 & A37 are awaited.

Botswana is blessed with large portions of three cratons – the Kaapvaal, Zimbabwe and Congo cratons. Two diamond-mining centres, at Jwaneng and Orapa, produce some 28% of the world's diamonds, by value, from three large kimberlite pipes and five smaller pipes. Jwaneng boasts the highest profit margin of any mine in the world.

Transparency International rates Botswana as the least corrupt African country and 24th least corrupt country in the world, ahead of France, Portugal and Brazil. Since independence from Britain in 1966, the country has had a multi-party democracy, has shown no racial, ethnic or religious bias and has never had a political prisoner. The legal system is well established and the mining and fiscal laws encourage exploration and exploitation of minerals.

Competent people

Dr Andy Moore, technical director of Tsodilo, studied at the University of Cape Town for his Doctorate in Geology under the supervision of Professor John Gurney, acknowledged as a world leader in the study



Ngamiland, Botswana drilling program

of kimberlite geology and the formation of diamonds. Andy spent many years in Botswana's Central Kalahari managing Falconbridge's field program under the direction of Dr. Chris Jennings. This led to the discovery of three virgin kimberlite fields including the diamondiferous Gope kimberlite.

Consulting on kimberlite exploration projects to companies in Botswana and Zimbabwe has widened both his technical and commercial skills, which are complemented by Tsodilo's administrative team of chief executive officer James Bruchs, who has a legal and commercial background in North America and has long involvement with junior explorers in Africa; and chief financial officer Stephen Woodhead, who has many years experience, administering to listed junior mining companies.

The board of directors has successful diamond explorer Dr. Chris Jennings as Chairman, with two North American commercial lawyers, Pat McGinley and Richard Kelso, to guide and monitor the progress of the executive.

Concession area

Tsodilo has taken out exploration licences over the entire accessible area underlain by the Congo craton in Botswana.

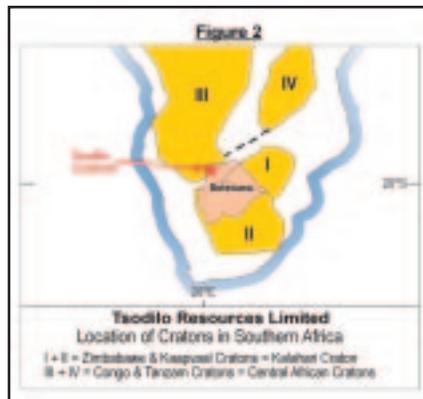
The northern part of these licences, some 17,771 Km² in extent, is held through 75% owned Botswana subsidiary Newdico, with South African diamond mining company Trans Hex Group holding the balance of the shares.

The southern part of the licences, some 6,788 Km² in extent, is held by wholly owned Botswana subsidiary, Gcwihaba. The exploration of these licences will be done under a 50:50 joint venture with SouthernEra. This agreement is currently in the final stages of approval.

Results that prove the model

In 1997, the government sponsored a close-spaced airborne magnetic survey over a very large portion of northern Botswana. This led to a new interpretation of the southern boundary of the Congo craton, and showed that it was far more extensive than previously thought.

In 1998 and 1999 joint venturers Ashton and Reunion Mining explored the craton by taking kimberlite indicator mineral sam-



ples over selected magnetic targets. Drilling of some of the targets led to the discovery of a cluster of 19 kimberlites, the Nxau Nxau cluster, all less than 10 hectares in diameter and only four of which had low microdiamond counts.

Despite this initial technical success, the partners terminated their program in late 1999 and Newdico, at the urging of their consultant, Andy Moore, took up the ground. Newdico has completed widely spaced soil sampling throughout the northern block, completed detailed sampling, grav-

ity and magnetic surveys over several targets and completed first-pass RC drilling on three targets. Two of these targets, A12 and A37, proved to be crater-facies kimberlites and the results of micro-diamond sampling are awaited.

A12 is estimated to be some 12 to 15 hectares in extent while A37 is estimated to be a massive 80 to 120 hectares with a champagne-glass cross sectional shape (Figure 3). This can be likened to the Mbuji Mayi diamond mine in the Democratic Republic of the Congo, with hot kimberlite encountering groundwater in dolomitic limestones giving rise to a very explosive volcanic event (a "phreatic" eruption).

It is clear from results to date that Tsodilo's model and exploration methodology is working, and the next 12-month period should show whether a commercial diamondiferous kimberlite is present.

To keep track of Tsodilo's progress go to their website at <http://www.tsodiloresources.com> and request to be put on their e-mail mailing list for news releases. ☼

Peter Walker, a consulting geologist, has a beneficial interest in Tsodilo Resources.

