

PL0133/2024 FOR SUNHOUR (PTY) LTD



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#### 1. SUMMARY

26 new targets identified from regional aeromagnetic data through manual targeting.

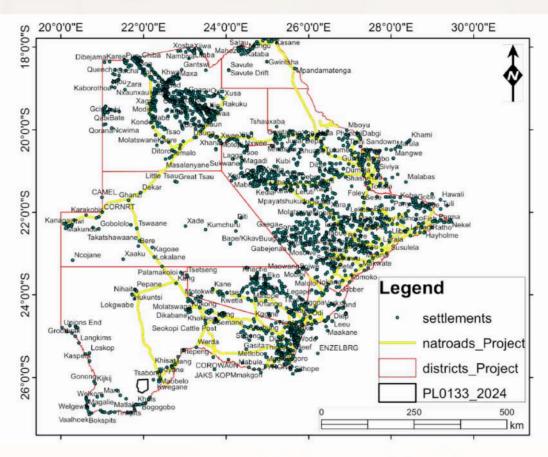
#### 2. INTRODUCTION

SUNHOUR (PTY) LTD have a prospecting license for diamonds in southwestern Botswana in the Tsabong kimberlite Field. The PL0133/2024 license is 854.44 km2 lies 32 km west of Tsabong. The license is accessible through several sandy road and tacks. Generally, the area is known to be fertile with kimberlite pipes but recent drilling as part of the kimberlite exploration (Fig.1).

This report is a synthesis and review of old exploration databases, where most of the work was carried out in the area as well as any new targets that might be kimberlite pipes. The data is available in the public domain in Botswana, while other datasets include reports purchased from the Botswana

Geoscience Institute. Most of the report formed part of the ground relinquishments. Historical works include early work by DeBeers and Falconbridge in the early 1978-80. Some of the data include works by Austar Mining Corporation NL, Pangolin Diamonds, and BCL Limited in 1990-2000.

Botswana is considered to be Africa's mining hub in that it combines long-lived political stability with prospective geology as well as an attractive and competitive fiscal regime. The country is considered to be one of the best growing economies and a leader in social and infrastructure growth. The license is accessible by tar road (450 km) and gravel (60 km) from the capital city of Gaborone (Figure 1).



**Figure 1** - Locality map of PL0133/2024 showing the access roads.

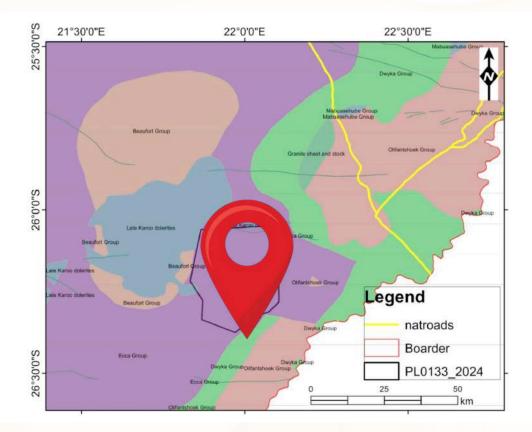


Figure 2 - Geology of west of Tsabong PL0133/2023.

## 3. LOCATION, GEOLOGY AND GEOMORPHOLOGY

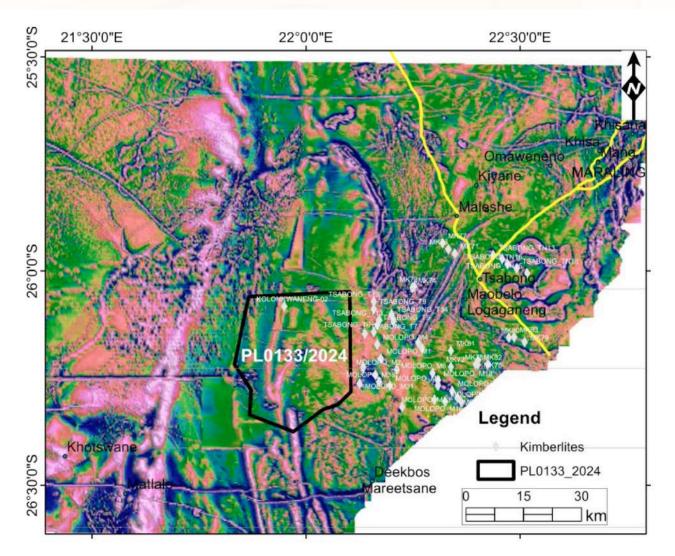
The SUNHOUR (PTY) LTD license PL0133/2024 is located west of Tsabong Village along the Tsabong Mabuasehube gravel road. Tsabong lies about 500 km south west of Gaborone. Tsabong village is conveniently located to access the prospecting license. Access to the prospecting license is through the Mabuasehube Tsabong gravel road. Access to Tsabong is through a well-maintained tarred surface road.

#### Geology

The regional geology of the area is made up of the Archean craton surrounded by Early Proterozoic belts. The Early Proterozoic Kheiss and Magondi Orogenic Belts wraps around the Kaapvaal craton with a predominantly north-south oriented contact. The outcropping geology is mainly the Quartzites which form low laying hills in the outskirts of the Tsabong village to the west. The outcrops form part of the Early Proterozoic Kheiss Orogenic belt which strikes north-south along the margin of the Kaapvaal craton and are visible on virous datasets and aerial photographs (Figure 2).

Further to the west, the geology is made up of the Nossop Basin which is filled with the Carboniferous-Jurassic Supergroup rocks called the Karoo Supergroup. The basal Dwyka Group and the Ecca Group offlap against the Olifantshoek Sequence to the eat. The Dwyka Group comprises of massive tillites followed variable success of pebbly siltstone, black mudstone, sandstone, siltstones and varved mudstones. The stratigraphy is overprinted by the WNW-ENE Karoo dolerite intrusions. In some areas circular magnetic features are evident on aeromagnetic data, and could be possible sills.

The Kalahari group is made up of up to 20 m or more unconsolidated sand lying on top of the calcrete and silcrete that extends in most cases to 30 m. The top of the sandstone is generally white with some calcareous cement. The area is generally flat, with occasional sand dunes and resistant quartzites ridges. Th vegetation is mainly Kalahari vleis characterized by stubby bushes and open grassland.

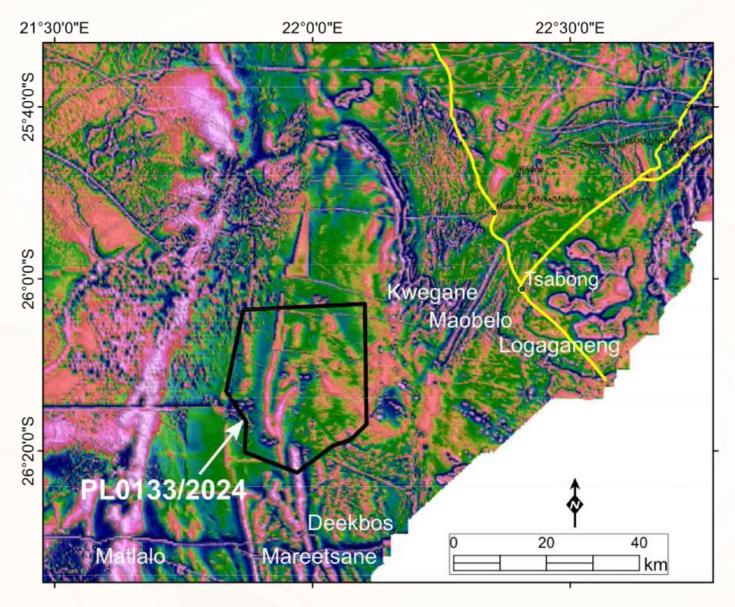


**Figure 3** - The distribution of the known kimberlites field relative to license PL0133/2024. One kimberlite pipe (Kolonkwaneng 02) lies with PL0133/2024.

# 4. EXPLORATION ACTIVITIES UNDERTAKEN OF PL0199/2023

#### 4.1 Review of airborne geophysical data

The initial steps of the SUNHOUR (PTY) LTD after the granting of the license was to conduct a robust review of the available exploration data. The data included aeromagnetic data from the Botswana Geoscience Institute (BGI), kimberlite and diamond data acquired from the previous exploration license holders such as Falconbridge and Firestone Diamonds (Figure 3). The objective of the exercise was to come up with a systematic and robust follow up program. The outcome of this program summarized below. The data was sent to Dr Khumo Leseane, a Potential Fields geophysicist, who previously work in the area with BCL Mining and Smelting and conducted review of data for several clients within the region.



**Figure 4** - Analytical Signal image showing the identified magnetic pipe anomalies within the license and surrounding areas consistent with know kimberlite pipe anomalies.

A total of 1 known target and 26 new targets were identified (Figure 4). The targets were modelled to understand the geometry, potential diameter across the body size the dip. All the target were consistent with the previous reports. The next step on the identified targets is carry out ground geophysics followed up by drilling and sampling

### **Future Work**

# 4.1.1 The SUNHOUR (PTY) LTD Exploration Program

4.1.1.1 Ground Geophysics aims to Define the target with high resolution ground geophysical data and propose drill targets (Ground Magnetics and gravity).

Constrain overburden thickness and geometry of the pipes (Audio Magnetotelluric Survey)

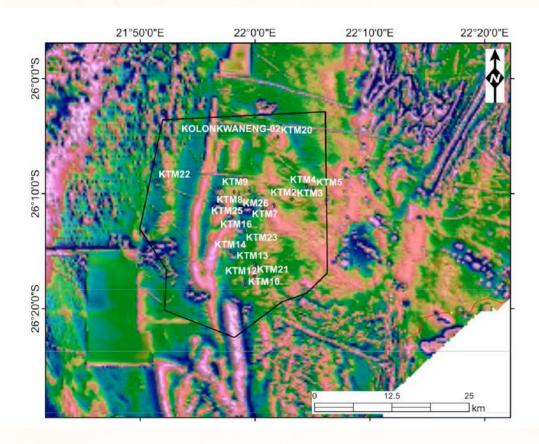
#### 4.1.1.2 Drilling Program

Test the pipes that corresponds to the pipes identified

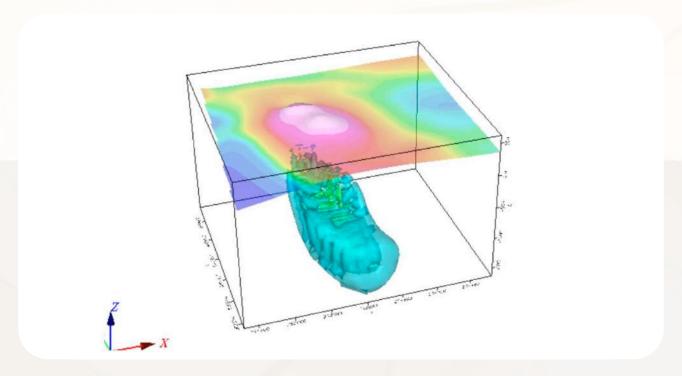
Establish a geophysical platform that will enable Downhole Electromagnetic (DHEM) survey techniques.

Intercept the pipes that bring and host the diamonds mineralization on Tsabong - Mabuasehube prospect.

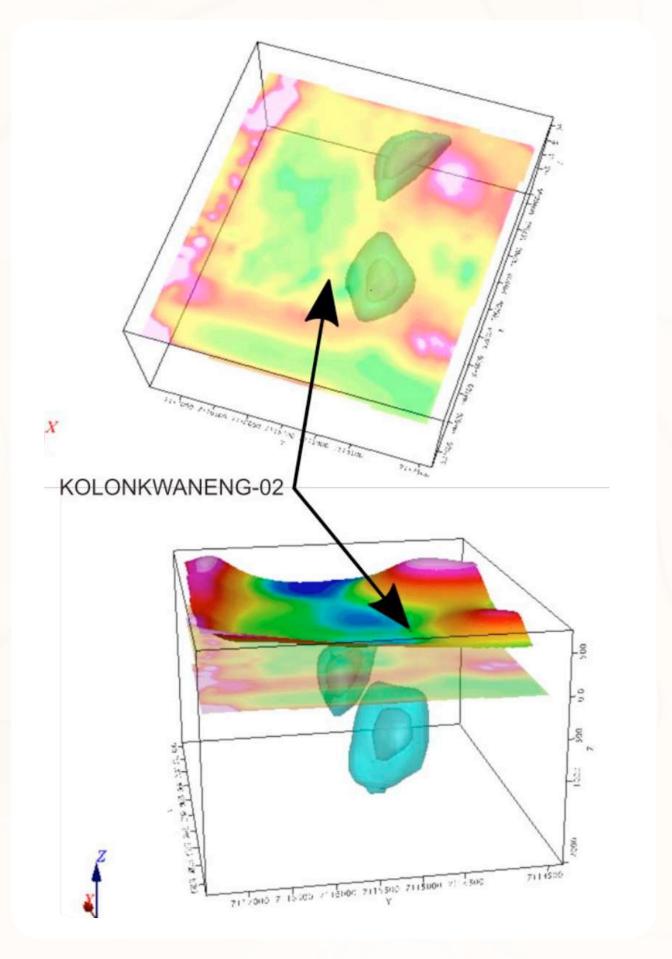
Sampling for early-stage kimberlite assessment, evaluation and mantle mapping (Petrography mapping, mineral chemistry, mantle mapping bulk sampling).



**Figure 5** - Newly identified on top of a composite image of aeromagnetic data.



**Figure 6 -** Geometry of TKM7 showing a slant pipe within PL0133/2024.



**Figure 7** - Geometry of Kolonkwaneng 02 pipe within PL0133/2024.

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Tsabong Kimberlite Project PL0133/2024

For Sunhour (PTY) LTD