

**SITE SENSITIVITY VERIFICATION REPORT FOR  
THE OPENING OF THE WITTEKLIP QUARRY  
NEAR MURRAYSBURG**

**2 August 2021**

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## 1. BACKGROUND

Chameleon Environmental has been appointed by BBT Contractor's Consultant to facilitate the Basic Assessment process in terms of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), for the opening of the Witteklip Quarry near Murraysburg. The applicant is BTT Contractor's Consultant.

## 2. SCOPE OF REPORT

This Site Sensitivity Verification Report has been compiled for submission to the Western Cape Department of Mineral Resource and Energy. This report addresses the findings of the Screening Tool Report, generated from the National Web Based Environmental Screening Tool, and provides a motivation for the various specialist studies identified to be conducted.

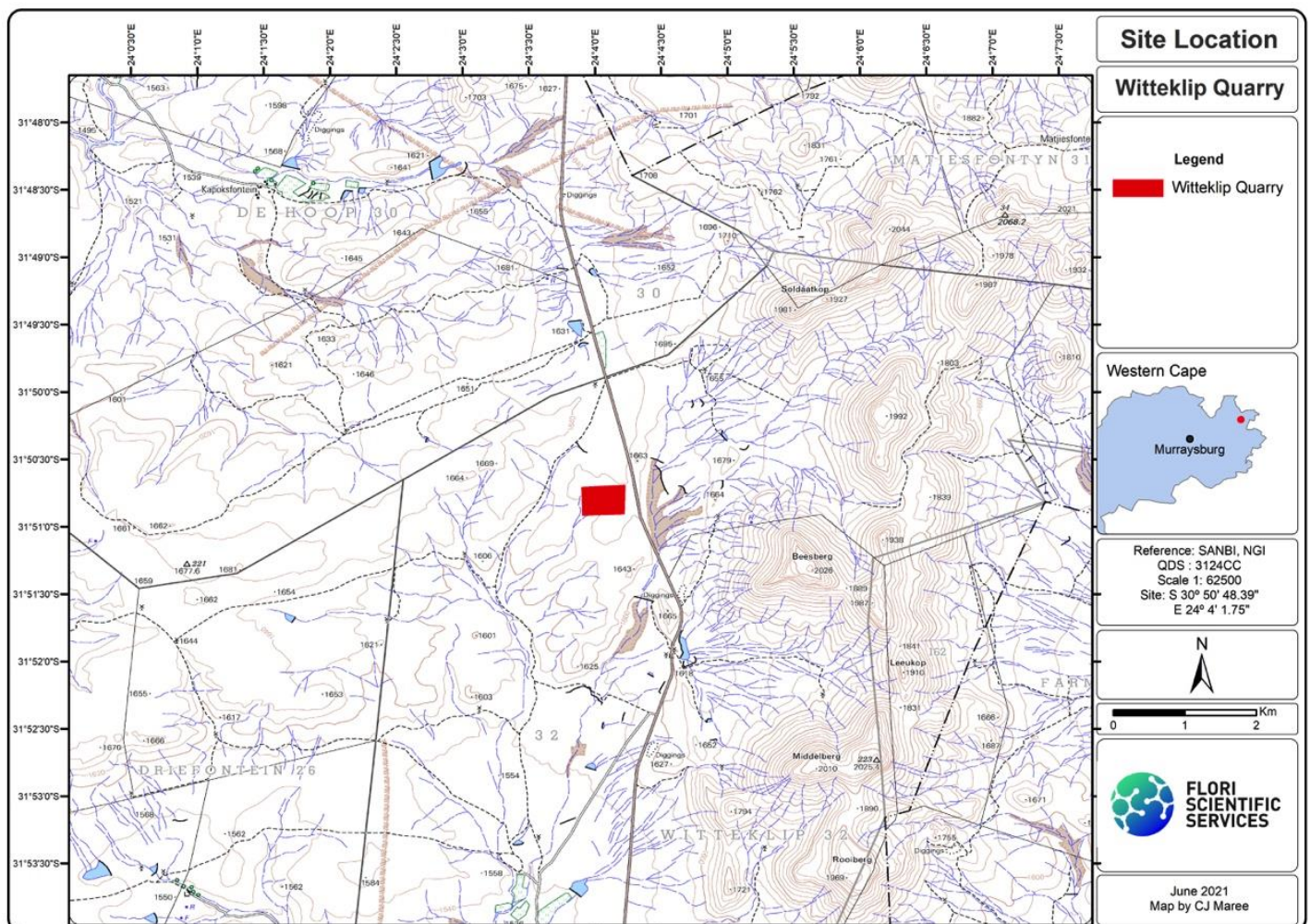


FIGURE 1: Locality Map of the Proposed Quarry

### 3. SENSITIVITIES IDENTIFIED IN THE SCREENING TOOL

As per the Screening Tool Report (Appendix I), the proposed site is located within a Very high sensitivity area from a Palaeontology Theme and a Terrestrial Biodiversity Theme.

A High sensitivity from an Animal Species Theme.

Low sensitivity from an Agricultural Theme, Aquatic Biodiversity Theme, Archaeological and Cultural Heritage Theme, Civil aviation Theme, Plant species Theme and Defence Theme.

**Table 2: Sensitivities Identified in Screening Tool**

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme				X
Animal Species Theme		X		
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme				X
Defence Theme				X
Palaeontology Theme	X			
Plant Species Theme				X
Terrestrial Biodiversity Theme	X			

### 4. SPECIALIST STUDIES IDENTIFIED

Based on the above detailed sensitivities, the Screening Tool Report identifies and recommends the following specialist assessments:

1. Agricultural Impact Assessment
2. Archaeological and Cultural Heritage Impact Assessment;
3. Palaeontological Impact Assessment;
4. Terrestrial Biodiversity Impact Assessment;
5. Aquatic Biodiversity Impact Assessment;
6. Hydrology Impact Assessment;
7. Noise Impact Assessment;

8. Radio Activity Impact Assessment;
9. Traffic Impact Assessment;
10. Geotechnical Assessment;
11. Socio Economic Assessment;
12. Plant Species Assessment;
13. Animal Species Assessment.

## **5. DISCUSSION OF REQUIRED ASSESSMENT REPORTS**

### **5.1 *Agricultural Impact Assessment***

The sensitivity as indicated in the report is deemed to be low. This recommendation for a specialist study is **disputed** for the following reasons:

It is expected that the proposed quarry will have a low impact on any agricultural activity as the area is used for grazing of animals. The proposed area to be mined is very small, only 4,73 ha. The farmer also requested the area to left as dam after the mining activity has ceased. The dam could assist the farmer with providing much needed water to the grazing animals on the farm.

Therefore, as the proposed development will have a low impact on agricultural activity of the surrounding environment, it is not required that an Agricultural Impact Assessment be compiled.

### **5.2 *Archaeological and Cultural Heritage Impact Assessment***

The sensitivity and recommendation for this assessment is **confirmed** for the following reasons:

The area to be mined is larger than 10000 m<sup>2</sup> and requires a heritage assessment in terms of the SAHRA Act. A phase 1 Archaeological and Cultural Heritage Impact Assessment was conducted as part of the BAR application by Dr J van Schalkwyk and due consideration will be given to the potential impact of the proposed development on archaeological and cultural heritage resources.

### **5.3 *Palaeontological Impact Assessment***

The sensitivity and recommendation for this assessment is **confirmed** for the following reasons:

The Palaeontological Sensitivity Map (<http://www.sahra.org.za/sahris/map/palaeo>) indicate that most of the project area has a high sensitivity of fossil remains to be found, for which

a palaeontological assessment and protocol for finds is required. A palaeontological assessment was conducted as part of the BAR application by Dr H Fourie and due consideration will be given to the potential impact of the proposed development on palaeontological resources.

#### **5.4 *Terrestrial Biodiversity and Aquatic Impact Assessment***

The sensitivity and recommendation for this assessment is **confirmed** for the following reasons:

A terrestrial biodiversity and aquatic assessment will be undertaken by Mr J Maree of Flori Scientific Services. The aim of the assessment will be to identify the impact of the proposed project on any possible water courses within or near the quarry area.

This study will also provide information for the GA/WULA application at the Department of Water and Sanitation (DWS) and the Risk Assessment that is required.

#### **5.5 *Hydrology***

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

There are no streams that will be directly affected by the mining of the quarry. There are drainage lines that could be affected by the access road to the quarry that will be mitigated in the EMP. It is our professional opinion that all factors regarding the hydrology impacts has been taken into account in this site sensitivity verification report. Therefore, as the proposed development will have very low to insignificant hydrological impacts, a hydrological Impact Assessment is thus not required.

#### **5.6 *Noise Impact Assessment***

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

The quarry is not located close to any residential activity and the potential impact relating to noise is deemed to be very low. The mining of the quarry is a short term mining operation that will cease after two years. Due to the distance between the proposed development site and residential developments, it is clear that there are no direct or indirect potential noise impacts as a result of the proposed development. Therefore, as the proposed development will have a low noise impact, it is not required for a noise impact assessment to be compiled.

#### **5.7 *Radio-Activity Impact Assessment***

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

The opening of the quarry and subsequent mining of the quarry will not make use of any radio-active material that will be needed for the mining activity. Opencast mining will take place as it is a quarry to be mined.

Therefore, as the proposed development will not make use of any radio-active material, it is not required that a radio-activity impact assessment be compiled.

### **5.8 Traffic Impact Assessment**

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

The gravel material that is mined at the quarry will be stockpiled within the quarry and hauled to the wind farm close to the quarry. The required gravel material will be excavated by an excavator and taken to the wind farm in the area by trucks. The traffic volumes on the R348 are very low and it is anticipated that the impact on traffic will be low. Therefore, as the proposed development will have a low impact on traffic, it is not required for a traffic impact assessment to be compiled.

### **5.9 Geo-Technical Assessment**

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

The activity entails the open cast mining of a quarry and the mining activity will not be very deep. It is therefore, not foreseen that the mining of the quarry will have an impact on any stability issues with regard to the rock material to be mined. Therefore, as the proposed development will have a low impact with regard to geo-technical issues, it is not required for a geo-technical assessment to be compiled.

### **5.10 Socio-Economic Impact Assessment**

The sensitivity and recommendation for this assessment is **disputed** for the following reasons:

The gravel will be used to construct the wind turbine basis at the wind farm close to the quarry. The wind farm will generate much needed electricity for the area. Wind is a free fuel and users of wind energy have a smaller carbon footprint.

The opening of the quarry could encourage business, industry and investment and assist in alleviating the high unemployment in the region as a whole.

Therefore, as the proposed development will have **positive socio-economic impact**, a Socio-Economic Impact Assessment will not be undertaken.

### **5.11 Plant and Animal Species Assessment**



The sensitivity and recommendation for this assessment is **confirmed** for the following reasons:

A terrestrial biodiversity and aquatic assessment was undertaken by Mr J Maree of Flori Scientific Services which will include an assessment on plant and animal species and proposed mitigation measures included.



# APPENDIX A: PHOTOGRAPHS

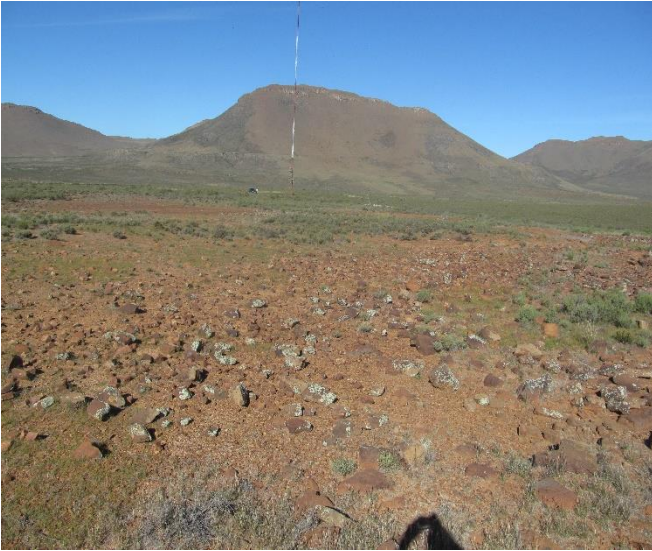


Photo 1: Towards the South East

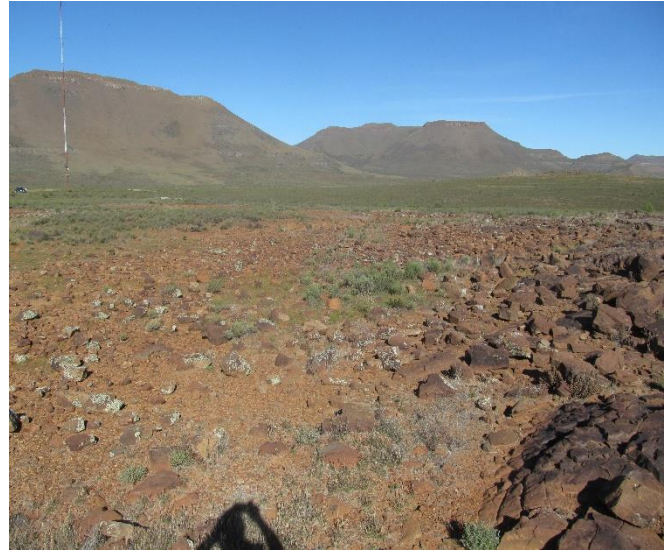


Photo 2: Towards the South



Photo 3: Towards the South West



Photo 4: Towards the South West



Photo 5: Towards the West



Photo 6: Towards the North West





Photo 7: Towards the North



Photo 8: Towards the North



Photo 9: Towards the North East



Photo 10: Towards the North East



Photo 11: Towards the East



Photo 12: Access road





Photo 13: Site notice at the gate



Photo 14: Site notice at the entrance gate



Photo 15: Site notice at the entrance gate

