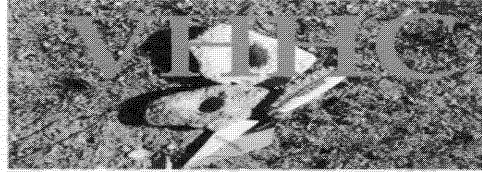


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**VHUFASHU HERITAGE CONSULTANTS CC**

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# **PHASE 1 HERITAGE IMPACT ASSESSMENT**

**PROPOSED BORROW PIT NO.2 ASSOCIATED  
WITH THE MAINTENANCE OF ROAD D1399 IN  
GROBLERSDAL, SEKHUKHUNE DISTRICT  
MUNICIPALITY OF LIMPOPO PROVINCE.**

**Compiled for:**

JOY COMES IN THE MORNING  
ENVIRONMENTAL CONSULTANTS

**July 2008**

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## 1 INTRODUCTION

Joy comes in the morning Environmental Consultants appointed Vhufa Hashu Heritage Consultants to undertake a heritage impact assessment study for a borrow pit site earmarked for extracting of gravel material associated with the maintenance of road D1399. The aim was to determine the presence, or not, of heritage resources such as archaeological or historical sites and features, graves and places of religious and cultural significance; to assess the impact of the proposed project on such heritage resources; and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features.

The Project proposal constitutes an activity, which may potentially be harmful to heritage resources that may occur in the demarcated area. The National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) and graves and burial sites (section 36). In order to comply with the legislation, the Applicant requires information on the heritage resources, and their significance that occur in the demarcated area. This will enable the Applicant to take pro-active measures to limit the adverse effects that the borrow pit excavations could have on such heritage resources. In terms of the National Heritage Resources Act (1999) the following is of relevance:

### **1.1 Historical remains**

**Section 34(1)** No person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

### **1.2 Archaeological remains**

**Section 35(4)** No person may, without a permit issued by the responsible heritage resources authority-

- ❖ destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite

### **1.3 Burial grounds and graves**

**Section 36 (3)** No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

- ❖ destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- ❖ bring onto or use at a burial ground or grave referred above ,any excavation equipment, or any equipment which assists in detection or recovery of metals.

### **1.4 Culture resource management**

**Section 38(1)** Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development\* ...

- ❖ must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

This Archaeological Impact Assessment report provides an overview of the heritage resources that may occur in the demarcated area where the borrow pit site is located.

## 2 METHOD

### 2.1 Sources of information

The sources of information were the field reconnaissance and literary sources mentioned below.

Scoping surveys of the affected area for borrow pit sites was undertaken on foot, standard archaeological practices for observation were followed. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to previous disturbances, as well as those made by natural agents such as burrowing animals and erosion.

### 2.2 Categories of significance

The significance of archaeological sites is ranked into the following categories (see table 1)

<ul style="list-style-type: none"><li>❖ No significance: sites that do not require mitigation.</li><li>❖ Low significance: sites, which may require mitigation.</li><li>❖ Medium significance: sites, which require mitigation.</li><li>❖ High significance: sites, which must not be disturbed at all.</li></ul>
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Table 1

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

*A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. There are many aspects that must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.*

### **3 TERMINOLOGY**

The following aspects have direct bearing on the survey and the resulting report:

**Archaeological** means material remains resulting from human activities that are in a state of disuse and are on land and are older than 60 years, including artifacts, human and hominid remains and artificial features.

**Conservation**, in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance.

**Cultural Significance** means possessing historical, archaeological, architectural, technological, aesthetic, scientific, spiritual, social, and traditional or other special cultural significance associated with human activity.

**Development** means any physical intervention, excavation or action, other than those caused by natural forces, which may in the opinion of heritage authority in any way result in a change of the nature, appearance or physical nature of a place or influence its stability and future well-being, including construction, alteration, demolition, removal or change of use of the place.

**Heritage site** means a place declared to be a National Heritage Site by the SAHRA or a place declared to be a Provincial Heritage Site by a Provincial Heritage Authority.

**Historic** means significance in history.

**Historical** means belonging to the past.

#### 4 DESCRIPTION AND LOCATION OF THE BORROW PIT SITES

The proposed borrow pit site is located approximately 11km from Moutse Complex along the D1399. It is on the Junction between D1399 and a gravel road to Verona (GPS S25.19884°E29.16672°)



**Figure 1:** View of a Proposed borrow pit site.

No heritage resources, or any archaeological materials, were identified within the vicinity of the borrow pit site.

## **5 CEMETERIES AND BURIAL SITES**

No signs of burial grounds or any other heritage resources such as archaeological sites and historical remains were found that would be significantly impacted on by the proposed extraction of gravel materials from the identified borrow pit. However, there is a probability of encountering chance finds during earth-moving activities.

Therefore, the discovery of previously undetected subsurface heritage remains on the site during extracting of gravel material must be reported to the South African Heritage Resources Agency (SAHRA) or the archaeologist, and may require further mitigation measures.

## **6 RECOMMENDATIONS**

We recommend that the South African Heritage Resources Agency should be notified if human remains falling under the National Heritage Resources Act (Act No 25 of 1999) are accidentally uncovered during the use of the identified borrow pit.

## **7 CONCLUSION**

No historically significant sites that are protected by the National Heritage Resources Act 25 of 1999 would be affected by the continuation of excavating the borrow pit site for gravel material. In conclusion we recommend that if unmarked human burials are discovered during borrow pit excavation they should be relocated to the formal graveyard. The removal must be conducted with due respect for the customs and beliefs of the affected relatives, and where requested, in the presence of relatives or community representatives.



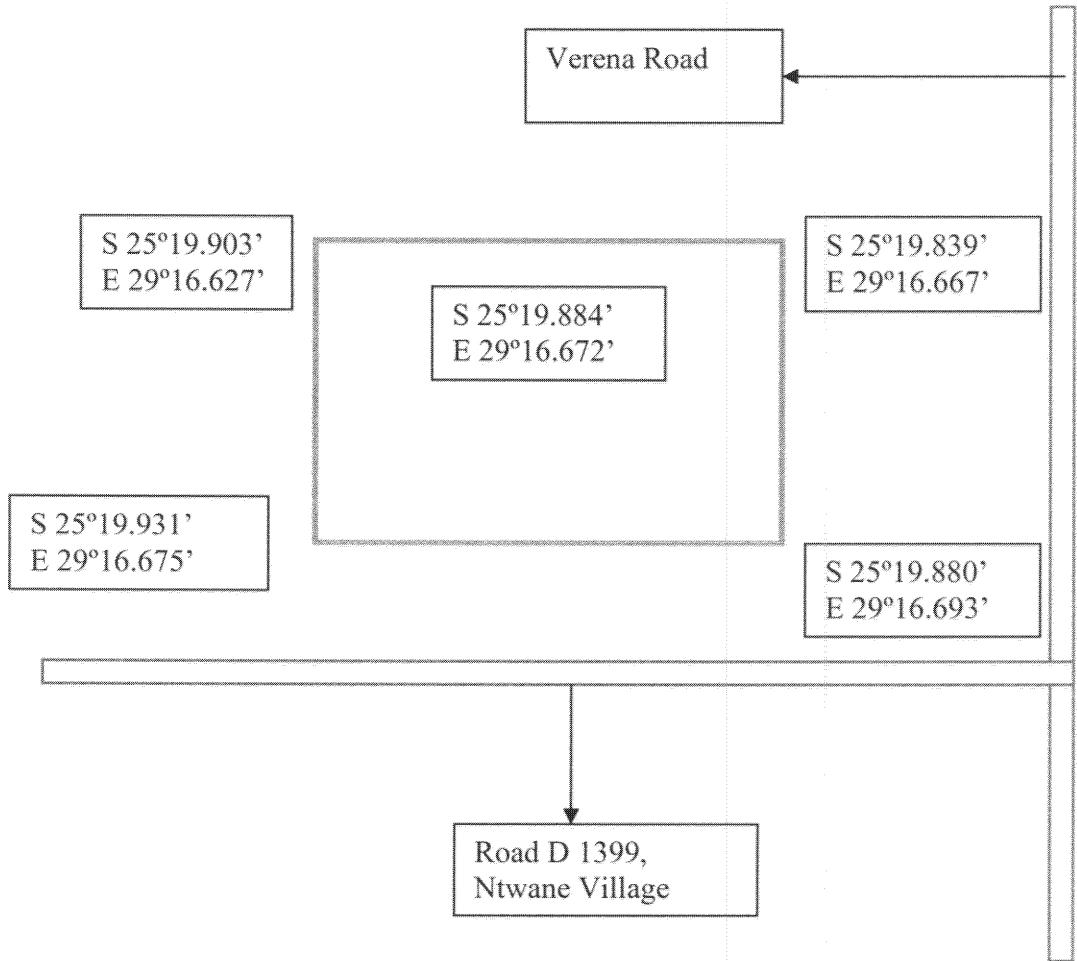
## 8 REFERENCE

1. The National Heritage Resources Act (Act No 25 of 1999)
2. Loubser, J.H.N. 1994. Ndebele Archaeology of the Pietersburg Area. Navors. Nas. Mus., Bloemfontein. Volume 10, Part 2: 62-147.
3. Pistorius, J.C.C. 1992. Molokwane, an Iron Age Bakwena Village. Johannesburg: Perskor Printers.
4. Schiffer, Michael B., Alan P. Sullivan, and Timothy C. Klinger 1978 The Design of Archaeological Surveys. World Archaeology 10:1-28.
5. Smith, L.D. 1977 Archeological Sampling Procedures For Large Land Areas: A Statistically Based Approach. USDA Forest Service, Albuquerque.
6. Stayt, H. 1931. The Bavenda. London: Oxford University Press.
7. Zubrow, Ezra B.A. 1984 Small-Scale Surveys: A Problem For Quality Control. American Archeology 4(1):16-27.

## AUTHORS

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### APPENDIX 5: SKETCH DIAGRAM FOR BORROW PIT 2



## **APPENDIX 6: REHABILITATION PLAN**

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VAT REG No. 4290158478

Your ref. RAL/5/3/C556/2008

Our ref. C829-16.cor

Date 12 June 2008

Sir,

**RAL/C556: MAINTENANCE OF ROAD D1399 FROM GROBLERSDAL / MOUTSE 3 TO GROBLERSDAL / MOUTSE 3, IN THE SEKHUKHUNE DISTRICT OF LIMPOPO PROVINCE CONTRACT NO. RAL/C556/2008**

### YOUR QUERIES REFERS:

#### 1. FINISHING-OFF BORROW AREAS

Both the excavated areas will serve as a depositing area of all the organic material obtained as a result from the clear and grub operations along the route. The cleared and grubbed topsoil obtained along the route will be stockpiled at the nearest borrow area for the later rehabilitation of the borrow pit. This material contains the seed bank, which will allow disturbed areas, such as a borrow area to recover faster by means of natural succession. All existing drainage structures will be cleaned as well as in front of the inlet and outlets of these structures. This material will also be spoiled into the borrow pits. After completion of the works, the borrow areas will be covered with the topsoil to its original depth. If necessary, both areas will be fertilised to allow vegetation to re-establish rapidly.

On completion of the operations in the borrow area, the contractor shall reinstate the entire area so as to blend it with the surrounding area and to permit the re-establishment of vegetation. For this purpose the borrow area shall be shaped to even contours without any slopes being steeper than 1 in 3, except where the engineer so permits in specified cases. All material in and around the borrow area, whether spoil from road-building operations, excess stockpiled material, oversize material left in the borrow pit, material resulting from clearing and grubbing operations or excess overburden, shall be used or disposed of as directed by the engineer. Material incapable of supporting vegetation shall be buried and used for shaping the borrow area and shall subsequently

be covered with soft material. All available soft material shall be spread evenly to the prescribed thickness, and where sufficient material is not available for so covering the entire area, the remaining portions shall be scarified along the contours so as to avoid undue erosion.

The shaping and finishing-off of the borrow pit shall be done in such a manner that the borrow pit will be properly drained wherever practicable, and, where required, the contractor shall place earth banks to divert surface water from the borrow area.

## **2. UTILIZATION OF BORROW PITS**

### **a) Topsoil**

- All topsoil with organic material will be removed from the total area of each borrow pit and shall be stockpiled on the high side of the borrow area. The thickness of topsoil should vary between 300mm and 600mm.
- Topsoil will be kept separate from the overburden and shall not be used for building or in any construction activities of Road D1399.

### **b) Gravel from the borrow pits.**

- Approximately 9,000m<sup>3</sup> material will be removed from each borrow area. Both borrow pits will not necessarily be worked deeper than 1m below the ground surface which should make the rehabilitation process relatively easy.
- Relatively small amounts of gravel will be removed from both these borrow pits
- The gravel will be used in the maintenance of the existing shoulders of Road D1399 only.
- The contractor should not be allowed to remove the topsoil from the entire area as indicated on the borrow pit drawing at the beginning of the contract period. Only an area large enough to provide sufficient quantities of shoulder material needed must be removed. If more material are needed the area should be increased by the quantity of material needed.

### 3. BUDGET OF BORROW PITS

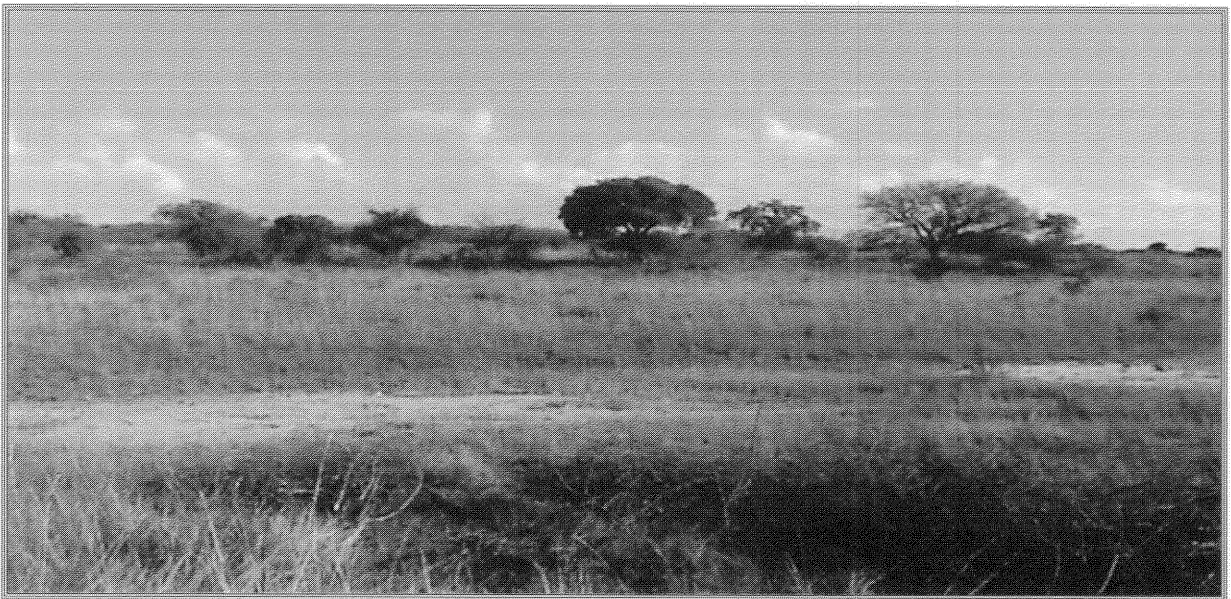
The total budget for handling the borrow pit depends on which contractor is appointed but is approximately R175 000-00 (VAT exclusive).

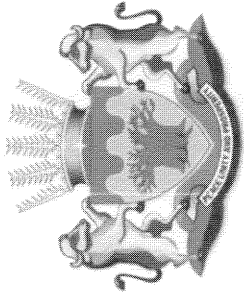
Yours faithfully



**JACO PIETERSEN PR. TECH (ENG)**

## APPENDIX 2: BORROW PIT PHOTOS





Proposed  
Borrow pit 2 For the  
Maintenance Of road  
D1399 From N11  
To D95 in  
Sekhukhune District  
Of  
Limpopo Province

Prepared For  
Road Agency  
Limpopo

Scale 1:50000  
Date : July 2008

# Locality Map

