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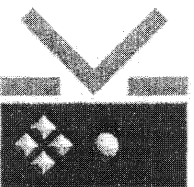
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PHASE 1 CULTURAL AND ARCHAEOLOGICAL HERITAGE  
ASSESSMENT SPECIALIST STUDY FOR THE PROPOSED THREE  
BORROW PITS SITES ASSOCIATED WITH THE REHABILITATION  
AND UPGRADING OF SURFACED ROAD P52/3 BETWEEN KRIEL  
AND OGIIES IN EMALAHLENI LOCAL MUNICIPALITY,  
MPUMALANGA PROVINCE

JUNE 2006, POLOKWANE

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## REPORT DETAILS

**PROJECT NAME:** Proposed Borrow Pits Sites associated with rehabilitation and upgrading of surfaced road P52/3 between Kriel and Ogies in Emalaheni Local Municipality, Mpumalanga Province.

**REPORT TITLE:** CULTURAL AND ARCHAEOLOGICAL HERITAGE ASSESSMENT SPECIALIST STUDY

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**PROFESSIONAL SERVICE PROVIDER (PSP)** Nzumbululo Heritage Solutions (South Africa) cc.

## **MANAGEMENT SUMMARY**

### **BACKGROUND**

Nkangala District Municipality appointed Ndizani Civil Works (NCW) to provide professional technical services for the rehabilitation and upgrading of surfaced road P52/3 between Kriel and Ogies in the Emalaheni local municipality. NCW subcontracted Nzumbululo Heritage Solutions (South Africa) (HeSSA) to conduct a Heritage Impact Assessment (HIA) study for borrow pits sites. This study focus to potential impacts on archaeological, cultural, and historical heritage resources associated the proposed use of borrow pits receiving environment.

### **SUMMARY RESULTS**

A standard archaeological survey covering the three (03) existing borrow pits sites was conducted and no archaeological, physical cultural remains or any other related materials were identified. However, cultural heritage materials such as archaeological and historical remains may potentially be discovered from underground during the proposed excavation of gravel material for construction work.

### **SUMMARY RECOMMENDATIONS**

- Although this study did not identify archaeological heritage sites that are directly affected by the proposed use of borrow pits, we highlight that archaeological materials, may potentially be found subsurface during the construction phase.
- Should heritage resources be disturbed subsurface, heritage authorities should be informed immediately.
- If the recommendations herein are accepted, there would be no archaeological or cultural heritage resources barriers to the proposed use of the identified borrow pits as sources of road construction materials.

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## **ABBREVIATIONS**

<b>CHA</b>	Cultural Heritage Assessment
<b>EIA</b>	Environmental Impact Assessment
<b>HeSSA</b>	Nzumbululo Heritage Solutions (South Africa)
<b>NCW</b>	Ndzani Civil Works
<b>PSP</b>	Professional Service Provider
<b>SAHRA</b>	South African Heritage Resources Agency

## DEFINITIONS

**Archaeological Material** remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures.

**Chance Finds** Archaeological artefacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earth moving activities such as water pipeline trench excavations.

**Cultural Heritage Resources** Same as Heritage Resources as defined and used in the South African Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

**Cultural Significance** The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

**Grave** A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

**Historic Material** remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

**In Situ material Material culture** and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

**Material culture** Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

**Site** A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

**CULTURAL HERITAGE ASSESSMENT STUDY FOR THREE BORROW PITS SITES ASSOCIATED WITH THE REHABILITATION AND UPGRADING OF SURFACED ROAD P52/3 BETWEEN KRIEL AND OGIES IN EMALAHLENI LOCAL MUNICIPALITY, MPUMALANGA PROVINCE**

**1 INTRODUCTION**

Nkangala District Municipality commissioned the rehabilitation and upgrading of surfaced road P52/3 between Kriel and Ogies. Ndizani Civil Works (NCW) was appointed to provide professional technical services for the proposed project. The proposed project area is situated in the Emalahleni local municipality of the Mpumalanga Province. Three (03) existing borrow pits have been identified as possible sources of road construction gravel material. As part of the Environmental Impact Assessment study, NCW – subcontracted Nzumbululo Heritage Solutions cc (South Africa) (HeSSA) to provide the professional services. This Cultural Heritage Assessment (CHA) study was conducted as part of Environmental impact Assessment study for the same. Aims and terms of reference of the CHA study are summarised in Table 1 below.

**Table 1:** Terms of Reference for the Cultural Heritage Study for three borrow pits sites associated with road P52/3 rehabilitation project.

<b>PURPOSE</b>	<b>ACTIVITIES</b>
<ul style="list-style-type: none"> <li><input type="checkbox"/> To fulfil requirements of the National Heritage Resources Act, Act No. 25 of 1999, Section 38. In so doing -</li> <li><input type="checkbox"/> Identify and describe (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed use of the identified three Borrow Pits and associated activities. This study should include the identification of gravesites.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify, describe and map sites of archaeological, historical or cultural interest affected by the three borrow pits.</li> <li><input type="checkbox"/> Liaise with the local communities (where applicable) regards to the impact during the use of borrow pits on heritage resources.</li> <li><input type="checkbox"/> Describe the importance or significance of these sites and whether these sites need to be conserved, protected or relocated.</li> <li><input type="checkbox"/> Describe the procedures for mitigation or relocation of sites and provide an indication of time required for these management measures to be implemented.</li> <li><input type="checkbox"/> Document findings and recommendations.</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify and describe impacts on archaeological, cultural heritage, religious resources and practices associated with the proposed Borrow Pits project area.</li> </ul>	

## 2 BRIEF BACKGROUND

The three existing borrow pit sites identified as sources of extracting gravel material associated with road P52/3 rehabilitation project are all located along the roadsides. By nature, the continuation of extracting gravel materials from the existing three borrow pits and the associated earthmoving are anticipated to destroy any archaeological or cultural heritage sites that may be located on their path and within the working zone for the work teams. In addition to destroying the heritage sites, the change on local landscape would also impact upon the cultural landscape that may be in existence in the project area would also impact upon the cultural landscape that may be in existence in the project area would permanently be altered.

## 3 METHODS

The study consisted of standard field surveys of the three (03) existing borrow pits sites and their respective surrounding areas. Most archaeological and historical sites are found through systematic survey of the target landscapes. The surveys therefore, sought to identify cultural heritage sites including graves, burial grounds and contemporary religious or sacred ceremonial sites associated with borrow pits.

One HeSSA heritage specialist and one environmentalist transacted the affected landscape on foot looking for indicators of archaeological and any other cultural materials in the affected areas. In part the team also inspected soil profiles for potential archaeological materials that may still be trapped *in situ* in borrow pits portions that were disturbed by previous activities.

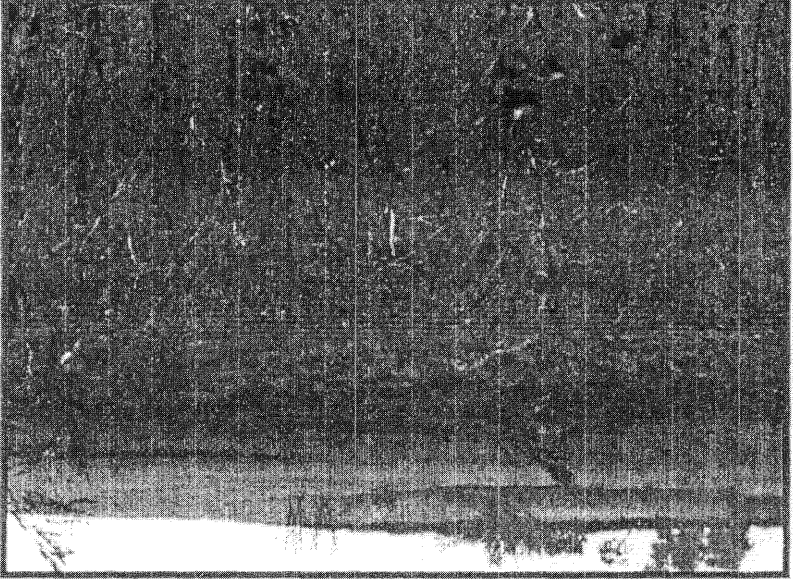
Identification of archaeological or historical sites during surveying depends on visibility and accessibility. Areas that are affected by the borrow pits are accessible and within easy reach of the proposed roadsides. All the three borrow pits sites are highly dominated by thatching grass and visibility was not high enough to allow total and effective surface survey and identification for possible archaeological materials on the ground.

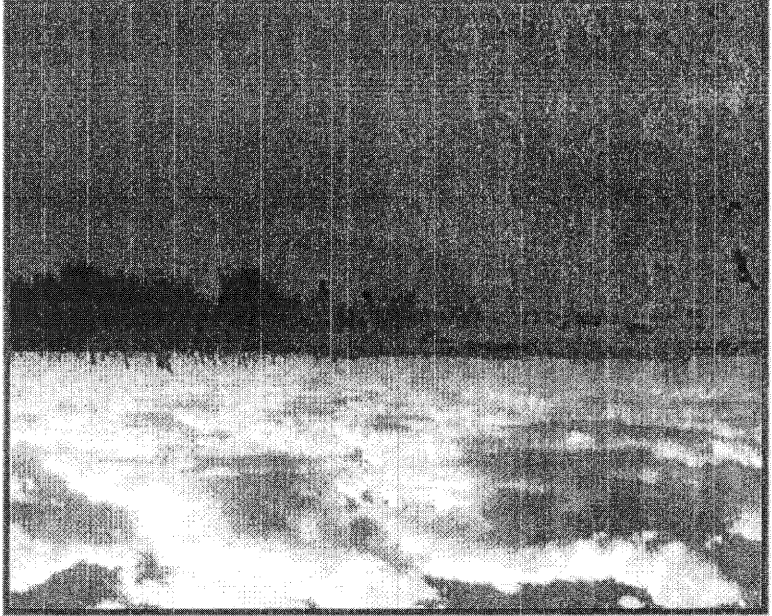


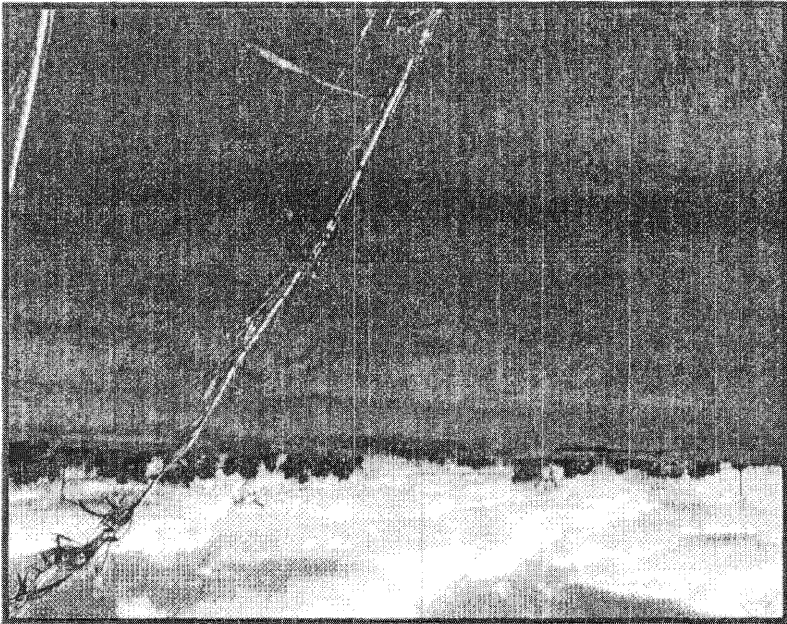
4 RESULTS

Three (03) existing borrow pits have been identified for the proposed rehabilitation of road P52/3 between Ogies and Kriel. The location details and the field survey findings are presented in Table 2 below.

**Table 2:** Results of CHA study for Road P52/3 Mothapo to Boyne Borrow Pits.

Borrow Pit No.	Location & Description	Cultural Heritage Site Type found	Cultural Heritage Significance	Recommendation
BP- 1	<p>Existing borrow pit site is situated to the northern side of Overwacht river at about 100 metres away from the junction to Kinross. The affected area is currently used as grazing land. There are cornfields and farm houses to the northern side of existing pit. Two co-ordinate points were picked on the existing borrow pit site.</p> <p>S26.26548° E29 22615° (north western side of the borrow pit bound by tarred road).</p> <p>S26 26536° E29 22644° (central area of the borrow pit)</p> <p>The ground surface surrounding the pit site has low visibility levels. An area of about 200m x 200m was covered under this survey.</p>	<p>No Cultural Heritage sites identified in affected area</p>  <p>Plate 1: The proposed borrow pit site situated on previously disturbed area near Overwacht river.</p>	None	Place site under heritage monitoring the program covering the period of use.

<p>Place site under heritage monitoring program covering the period of use.</p>	<p>None</p>	<p>No Cultural Heritage sites identified in affected area</p> <p><b>Plate 2:</b> Existing borrow pit site located to the western side of the road.</p> 	<p>This borrow pit exists and is located to the south east side of (Tweefontein Division) South Witbank Colliery Mine. The pit is at about 1km away from existing tared road and is situated near the informal settlement of mine workers. The ground cover was not visible enough to allow effective site surface survey. Area surveyed around the existing pit 200m x 200m</p> <p>Co-ordinates:                  S26.16830° E29.15330°                  (southern side of the affected area bound by agricultural land)                  S26 16796° E29 15154° (central area of the existing pit)</p>	<p>BP- 2</p>
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<p>Place site under heritage monitoring program covering the period of use.</p>	<p>None</p>	<p>No Cultural Heritage sites identified in affected area</p>  <p>Plate 3: Proposed borrow pit site situated along the road route earmarked for rehabilitation.</p>	<p>The third existing borrow pit site is located along the tarred road. The borrow pit site is flanked by electricity lines to the north, south and eastern side.</p> <p>Co-ordinates:          S26 13116° E29 13168° (Central area of existing pit);          S26 13073° E29 13129° (north western side of the pit bound by tarred road).          Area surveyed around the pit 100m X 100m. The area surrounding the pit site is covered with grass.</p>	<p>BP- 3</p>
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### **Archaeological and Cultural Sites**

No archaeological sites or other categories of physical cultural heritage properties or materials were identified on the existing borrow pits sites. Be that as it may, it is not possible at this stage to measure frequency or probability of occurrence of impacts on unidentified heritage resources in these circumstances. However, the proposed extraction of gravel material for road construction is unlikely to impact on cultural heritage resources because the affected area has very low potential to yield such site.

### **Historic Monuments**

No historical sites or features of significance were identified as potentially affected by the proposed use of the identified borrow pits as sources of road construction materials.

### **Cemeteries and burial sites**

No burial grounds or graves were identified within or near the proposed borrow pits sites.

## **5 OVERALL RECOMMENDATIONS**

Based on the results of this study, there are no identified sites of cultural or archaeological significance that are affected by the proposed borrow pits excavations. As such there are no archaeological or cultural heritage resources barriers to the proposed use of the identified borrow pits for road P52/3 rehabilitation and upgrading between Kriel and Ogies. Nonetheless, given the nature of the proposed work, should previously unknown archaeological materials be disturbed underground, we recommend that heritage authorities be informed immediately. With these considerations, from a cultural heritage perspective, there are no objections to the proposed use of existing borrow pits sites for road construction material.

## **6 REFERENCES**

National Heritage Resources Act (Act No 25 of 1999).