

# ARCHAEOLOGICAL ASSESSMENT OF PROPOSED ROAD WIDENING OF THE N7 BETWEEN CITRUSDAL AND THE ALGERIA INTERSECTION

Prepared for

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Prepared by

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## **1. INTRODUCTION**

The Archaeology Contracts Office at the University of Cape Town was requested to conduct a study of the proposed widening of the N7 to assess the impacts on the archaeology that may occur. Potential impacts are foreseen as a result of the widening and the building of new bypasses and the establishment of quarries and borrow pits.

The ACO undertook to:

- i) Undertake desktop study to examine existing records and determine the location of archaeological sites in close proximity to the road and borrow pits. Positions of sites to be indicated on appropriately scaled maps.
- ii) Drive the route and examine the positions of bypasses and borrow pits. Inspect areas that had not yet been examined. Map any new sites located.
- iii) Prepare a report on the findings making recommendations for mitigation of impacts if necessary.
- iv) Attend specialist feedback meetings.

In addition we have been requested to identify the location of sites in the general area to facilitate to positioning of additional borrow pits or additional alterations to the proposed route.

## **2. BACKGROUND**

The Department of Archaeology has for some years been conducting fieldwork in the general Olifants River area. A comprehensive study of the rocky outcrops along the west bank of the western side of the road between the bottom of Gray's Pass and the farm Uitsig has been made by UCT, while the area between Uitsig (Marcuskraal) and the Algeria intersection has been examined by the South African Museum. A range of sites have been located dating primarily to the Late Stone Age and include shelters with rock paintings as well as shelters with occupational debris including stone artefacts, indigenous pottery and ostrich eggshell fragments. Some sites contain archaeological deposits of some depth indicating episodes of re-use.

The types of artefacts present at many locations indicate that indigenous people used the area consistently for at least the last 3-4 thousand years although artefacts dating to the Middle Stone Age and Early Stone Age are found from time to time indicating use of the area extending back many thousands of years.

Prior to 2000 years ago the area was inhabited by San hunter/foragers whereas after this time pastoralism was introduced to the Cape by the Khoe-khoe. The presence of ceramics and domesticated stock is often associated with the arrival of pastoralists.

During the 17th and 18th centuries colonial expansion resulted in the establishment of farms on the frontier of the Cape colony which included the Olifants River valley. As colonial influence expanded and more land was settled, indigenous people were forced into economically less viable areas. The effects of diseases and organised extermination led to the eventual dissolution of indigenous society as it had existed, and the survivors were reduced to servitude on European farms.

Apart from the few references made by explorers, no written history of the pre-colonial past exists. This history must be reconstructed through the archaeological remains that have been left behind. Archaeological sites are non-renewable capsules of information and as such must be carefully managed.

### **3. METHOD**

Plans of the proposed widening showing the intended location of quarries and borrow pits were examined and compared to our site database. Site locations were taken into the field and compared with the general locations of borrow pits. Areas which had not been comprehensively searched in the past were examined for new sites. As the precise locations of the borrow pits have not yet been established, we are only able to indicate possible threats where sites exist in close proximity. Additional sites which are not perceived as being threatened by the currently proposed works have been plotted to accommodate any changes to the location of borrow pits or the route of the road.

### **4. RESULTS OF THE ASSESSMENT**

The positions of borrow pits and other activities related to the preparation of road surface, although shown on the plans, are at a scale which makes it difficult to determine precise position. This is a constraint in determining where direct impact through these activities will occur on archaeological sites. The tables below list the borrow pits and quarries and include comments on the proximity to known archaeological sites. In some cases borrow pits have not been labeled and we have assigned our own. These are shown in italics on the summary tables below. Brief summaries of the archaeological content of the identified sites which may be impacted can be found in Table 4. A plan showing the location of quarries and borrow pits is presented in Figure 1 while locations of potentially threatened and other archaeological sites are shown on Figure 2.

A single new site (GHR4) was located on the western side of the road in a rocky ridge at the 65.0 km mark. This lies outside the road reserve and is far removed from any borrow pits

#### **4.1 Quarries and Borrow Pits: West side of Road**

(see Table 1)

#### **4.2 Quarries and Borrow Pits: East side of Road**

(see Table 2)

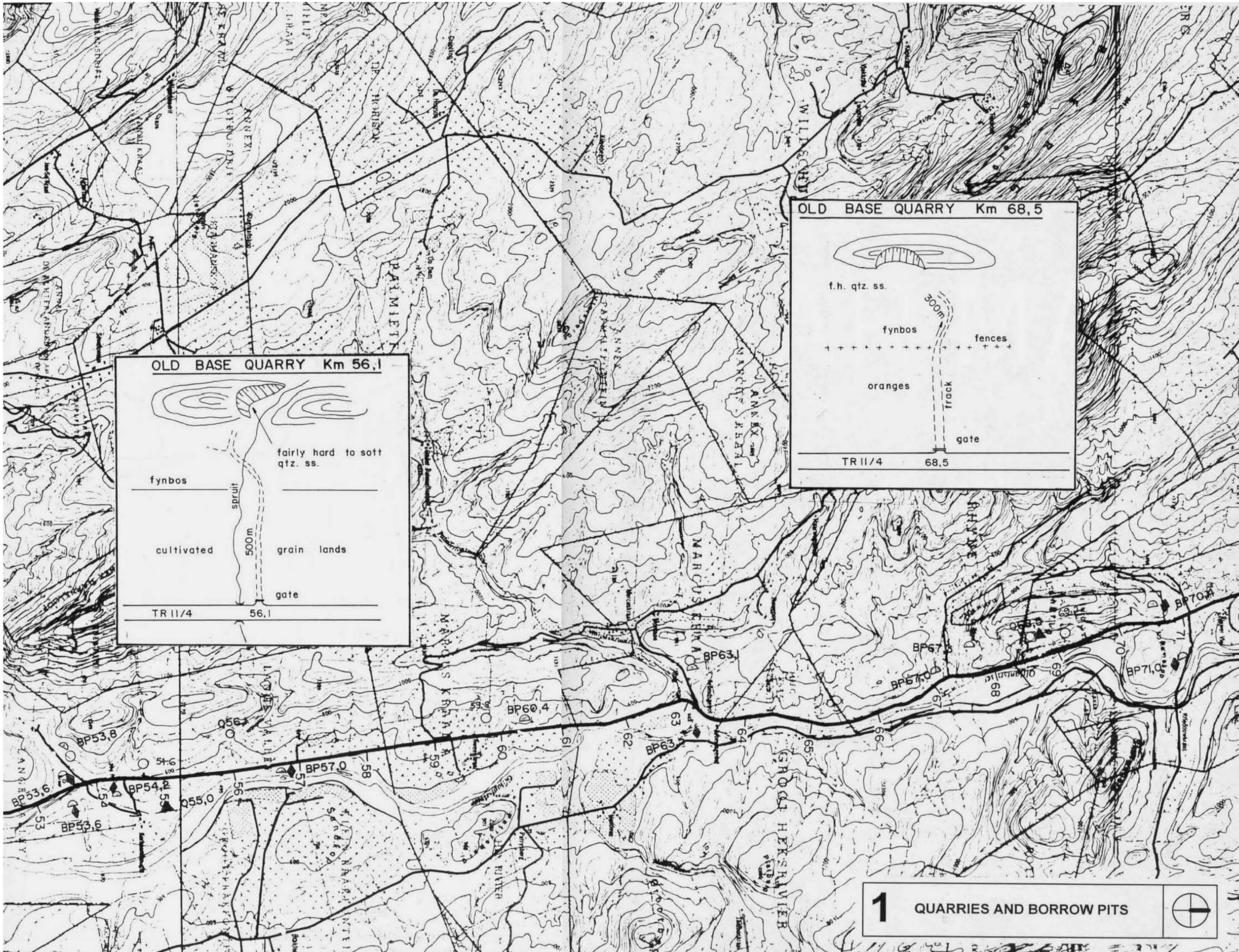
#### **4.3 Bypass Roads**

(see Table 3)

### **5. DISCUSSION**

A number of archaeological sites lie in close proximity to some of the proposed borrow pits and quarries while no sites were identified within the present road reserve. It is difficult to determine at this stage if direct impacts will occur as a result of these activities. Direct impacts could result from the physical positioning of a borrow pit directly over an archaeological site, or if in close proximity through the possible flaking of painted rock surfaces caused by vibration as a result of the operation of heavy earthmoving machinery. The effects of the latter are difficult to determine but may have an effect where rock surfaces





**OLD BASE QUARRY Km 56,1**

fairly hard to soft qtz. ss.

fynbos

spruit

500m

gate

cultivated

grain lands

TR II/4 56,1

**OLD BASE QUARRY Km 68,5**

f.h. qtz. ss.

300m

fynbos

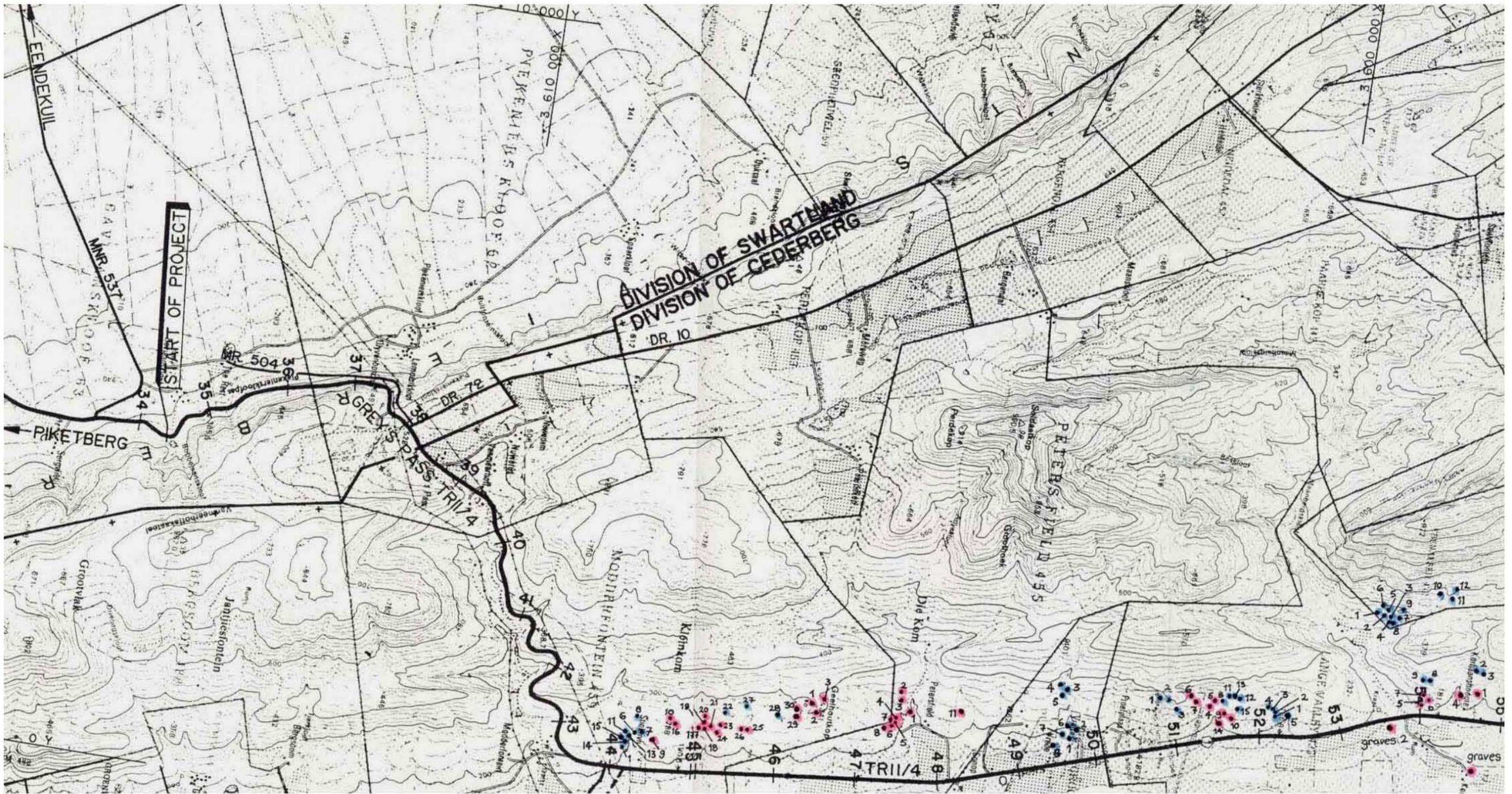
fences

oranges

Track

gate

TR II/4 68,5



**2** ARCHAEOLOGICAL SITES



are already friable and subject to flaking. Dust from borrow pits should be minimised to prevent damage to paintings in close proximity.

An additional secondary impact could occur as a result of people involved in the operation of the borrow pits visiting the sites. Rockshelters and rock overhangs are usually shaded and may be sought out as resting places particularly if roadworks take place during the summer months. An increase in visitors to rock art sites carries with it the possibility of damage to the paintings through the unwitting activities of graffiti artists and people, who in wishing to see the paintings more clearly, throw water and other liquids onto the painted surfaces. Under no circumstances must fires be lit close to any rock surface which contains paintings. Workers and supervisory staff must be made aware of the cultural value of the archaeological sites in the area and of the fact that they must avoid any form of negative activity if they visit sites.

Two graveyards are present on the farm Korhaanshoogte. An informal workers graveyard (graves2) could be impacted by borrow pits. These will need to be mitigated if the borrow pit cannot be relocated.

No buildings of any significance or other historical material appears to be threatened.

## **6. RECOMMENDATIONS**

### **6.1 Archaeological sites**

i) The final positions of borrow pits and extent of quarries must take into account the proximity of archaeological sites. If direct impacts will result from these activities, a program of mitigation will have to take place. Some sites contain fine rock paintings or good stone artefact scatters or a combination of the two and in these cases it would be preferable to avoid the sites completely as mitigation would be difficult and costly. Sites which lie in close proximity to quarries and borrow pits have been rated in terms of archaeological importance in Table 4. All archaeological sites are at present protected by the National Monuments Act of 1969 (as amended). A permit must be obtained from the NMC before sites can be destroyed. Sites which have been accorded a low rating are not photographically recorded during programmes of site survey. Should any of these sites be subject to direct impact the paintings would need to be photographed and a more detailed record made of the artefactual content. Dust from borrow pits must be controlled to prevent damage to paintings found in close proximity.

ii) Secondary impacts as a result of the use of rockshelters and overhangs containing archaeological material as resting places should be mitigated through making workers and supervisors aware of the heritage value of archaeological material. They must be made aware of activities which are forbidden in sites containing paintings.

iii) If additional borrow pit locations are selected they should be checked for impacts on archaeological and historical material. As the positions of known sites in the area have been supplied selection of additional sites should be more informed.

iv) When positions of borrow pits have been finalised, a follow up visit should be made to assess whether direct impacts will occur or not.

### **6.2 Graves**

i) Two sets of graves exist on the farm Korhaanshoogte. The first is close to the farmhouses and is formalised in a walled area (graves1). The second is close to workers cottages at the edge of an orchard (graves2). This graveyard is not walled in but contains between 20-30 graves. At least three of these are fairly recent while others are overgrown. There seems to be little chance of impact on the walled graveyard but the workers graves lie close to the position of borrow pit 53.6. The graves should be avoided if possible. If this is not possible, a legal process must be undertaken to trace next of kin. Intention to exhume must be advertised in the press for objections and if allowed to proceed, skeletal remains must be exhumed and relocated. Various legislation pertains to human remains and graves. Relevant to these graves are the Exhumations Ordinance (ordinance No.12 of 1980) and the Human Tissues Act (act No. 65 of 1983).

ii) Additional borrow pits sited close to settlements should take into account the possibility that graves or other historical material could be impacted.

## **7. PROFESSIONAL TEAM**

Desk top study and Fieldwork

Dave Halkett  
Anthony Manhire  
Dave Halkett

Report

SITE	CONTENT	RATING*	MITIGATION
GHK1	Rock paintings	medium	avoid
GHK2	Rock paintings and artefacts	low	possible
GHK3	Rock paintings and artefacts	high	avoid
KH1	Rock paintings and artefacts	high	avoid
KH4	no record		
RK1	Rock paintings and artefacts	high	avoid
RK2	Rock paintings	low	possible
RK3	Rock paintings	high	avoid
RK4	Rock paintings	high	avoid
RK5	Rock paintings	medium	avoid
RK6	Rock paintings	low	possible
RK7	Rock paintings	low	possible
RK8	Rock paintings and artefacts	medium	avoid
RK11	Rock paintings and artefacts	low	possible
SR9	Rock paintings	low	possible
SR10	Rock paintings and artefacts	medium	avoid
SR16	Rock paintings and artefacts	medium	avoid
SR17	Rock paintings and artefacts	medium	avoid
SR18	Rock paintings and artefacts	medium	avoid
SR19	Rock paintings and artefacts	medium	avoid
SR20	Rock paintings and artefacts	low	possible
SR21	Rock paintings and artefacts	high	avoid
SR22	Rock paintings	medium	avoid
SR23	Rock paintings and artefacts	medium	avoid
SR24	Rock paintings and artefacts	low	possible
SR25	Rock paintings	high	avoid
SR26	Rock paintings and artefacts	low	possible
SR29	Rock paintings and artefacts	low	possible
SR30	Rock paintings and artefacts	low	possible
TG4	Rock paintings and artefacts	high	avoid
TG5	Rock paintings	low	possible
TG6	Rock paintings	low	possible
TG7	Rock paintings	low	possible
TG9	Rock paintings and artefacts	high	avoid
TG10	Rock paintings	low	possible
TG14	Rock paintings	medium	avoid
US5	Rock paintings and artefacts	medium	possible
US6	Rock paintings	low	possible
US7	Rock paintings and artefacts	high	avoid
US8	Artefacts	high	possible
US9	Rock paintings and artefacts	low	possible
US10	Rock paintings	low	possible
US11	Rock paintings and artefacts	medium	possible
WK1	Rock paintings	low	possible
WK2	Artefacts	high	possible
WK3	Rock paintings	low	possible
WK5	Artefacts	medium	possible
WK11	Rock paintings	low	possible

\*low: minimal diagnostic paintings/minimal artefact scatter  
medium: some diagnostic paintings/more artefactual material/minimal cave deposits  
high: many diagnostic paintings/dense artefact scatters/cave deposits

**Table 4: Importance of archaeological sites and possibility of mitigation**

<b>B/Pits</b>	<b>Comment</b>	<b>Archaeological Sites</b>	<b>Action</b>
BP 44.6	close to known sites	SR9,10,16,17,18,19,20,21	id precise pit location
BP 45.2	close to known sites	SR17,18,19,20,21,23,24	id precise pit location
BP 45.7	close to known sites	SR22,23,24,25,26	id precise pit location
BP 46.2	close to known sites/direct impact?	SR29,30 GHK1,2,3	id precise pit location
Q 46.2	close to known sites/direct impact?	SR29,30 GHK1,2,3	id precise pit location
BP 47.5	close to known sites/direct impact?	RK4,5,6,7,8	id precise pit location
BP 48.05	close to known sites	RK1,2,3,11	id precise pit location
BP 48.2	no envisaged impact		no action
BP 51.4	close to known sites/direct impact?	TG4,5,6,7,9,10,14	id precise pit location
BP 53.6	no envisaged impact		no action
BP 53.8	close to known sites		id precise pit location
BP 54.6	close to known sites/direct impact?	KH1,4	id precise pit location
Q 56.1	close to known sites/direct impact?	WK1,2,3,5,11	id precise pit location
BP 59.8	no envisaged impact		no action
BP 60.4	close to known sites/direct impact?	US10,11	id precise pit location
BP 63.1	no envisaged impact		no action
BP 67.0	no envisaged impact		no action
BP 67.3	no envisaged impact		no action
Q 68.5	no envisaged impact		no action
BP 69.2	no envisaged impact		no action
BP 70.4	no envisaged impact		no action

**Table 1: Quarries and Borrow Pits: West side of Road**

<b>B/Pits</b>	<b>Comment</b>	<b>Archaeological Sites</b>	<b>Action</b>
BP 44.6	no envisaged impact		no action
BP 49.3	no envisaged impact		no action
BP 51.3	no envisaged impact		no action
BP 53.6	recent workers graves	graves2	relocate/legal aspects
BP 54.2	no envisaged impact		no action
Q 55.0	close to graveyard	graves1	avoid graves
BP 57.0	no envisaged impact		no action
BP63.5	no envisaged impact		no action
BP 71.0	no envisaged impact		no action

**Table 2: Quarries and Borrow Pits: East side of Road**

<b>Bypass</b>	<b>Comment</b>	<b>Archaeological Sites</b>	<b>Action</b>
Marcuskraal Bridge	close to known sites	US5,6,7,8,9	avoid sites
Elandskloof Bridge	no envisaged impact		no action

**Table 3: Bypass Roads**