

**AN ARCHAEOLOGICAL ASSESSMENT OF SIX BORROW PITS
ALONGSIDE DR2231 IN BITTERFONTEIN AND RIETPOORT
NORTHERN CAPE PROVINCE**

Prepared for

MEGAN ANDERSON LANDSCAPE ARCHITECTS

Att: Ms Megan Anderson
PO Box 2607
Clareinch
7740

Client: **Provincial Government Western Cape:
Department of Transport & Public Works**

By

Agency for Cultural Resource Management

P.O. Box 159
Riebeeck West
7306

Ph/Fax: 022 461 2755

Cellular: 082 321 0172

E-mail: acrm@wcaccess.co.za

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Executive summary

A Phase 1 Archaeological Impact Assessment of six proposed borrow pits alongside DR2231 situated between Bitterfontein and Rietpoort in the Northern Cape Province has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

The proposed borrow pits have been identified as possible material sources for the proposed upgrading and surfacing of DR2231.

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1. INTRODUCTION

1.1 Background and brief

Megan Anderson Landscape Architects, on behalf of the Provincial Government of the Western Cape: Department of Transport and Public Works, requested the Agency for Cultural Resource Management to undertake an archaeological assessment of six proposed borrow pits situated alongside DR2231 between Bitterfontein and Rietpoort in Northern Cape Province

The proposed borrow pits have been identified as possible material sources for the proposed upgrading and surfacing of DR2231.

The aim of the study is to locate, identify and map archaeological heritage remains that may be negatively impacted by the planning and implementation of the proposed project, and to propose measures to mitigate against the impact.

It is important to note that the proposed upgrading of the road is to stay within the existing road formation.

2. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to determine whether there are likely to be any archaeological sites of significance within the proposed borrow pits
- to identify and map any sites of archaeological significance within the proposed borrow pits;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed borrow pits;
- to assess the status and significance of any impacts resulting from the proposed development, and
- to identify mitigatory measures to protect and maintain any valuable archaeological sites that may exist within the proposed borrow pits.

3. THE STUDY SITE

A locality map indicating the proposed borrow pits is illustrated in Figure 1.

Bitterfontein is located alongside the N7, and is about 350 kms north of Cape Town. Rietpoort is located about 20 kms north west of Bitterfontein, on the road to Kotzesrus.

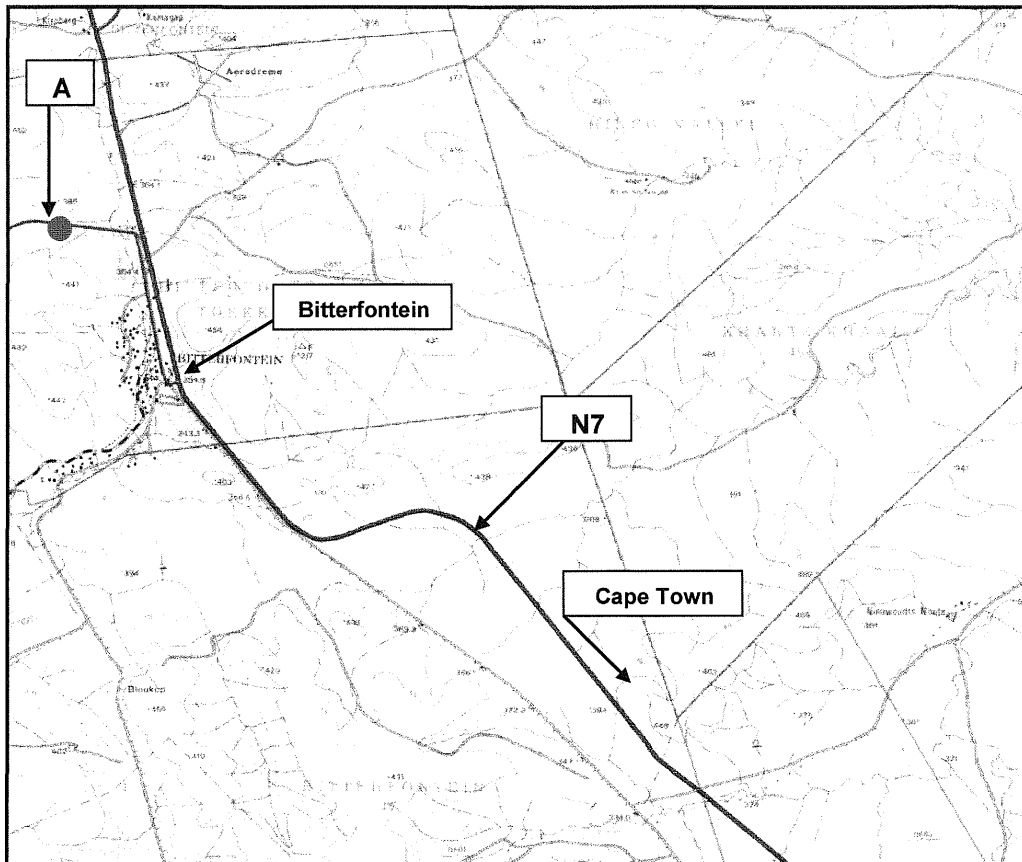


Figure 1. Locality map (3118 AB Bitterfontein) indicating proposed borrow pits

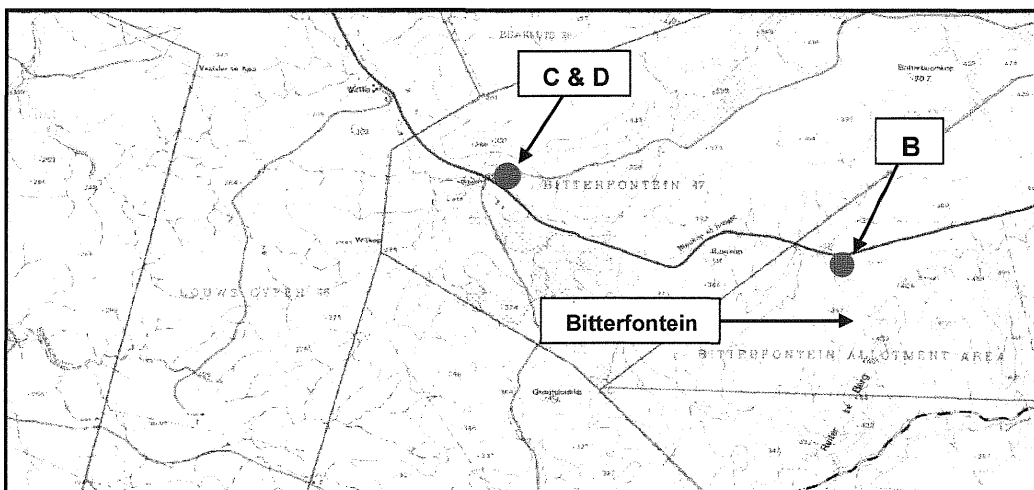


Figure 2. Locality map (3118 AA Komkrans) indicating proposed borrow pits

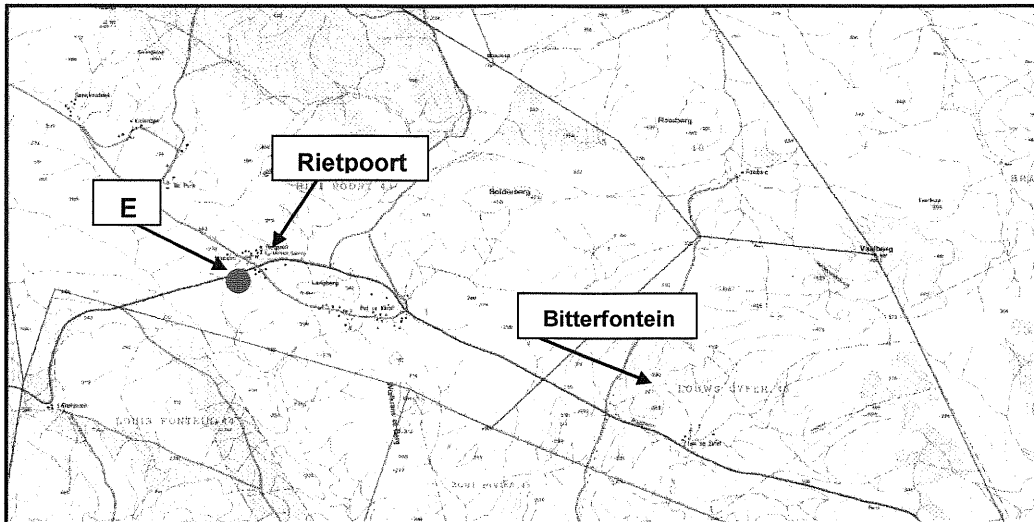


Figure 3. Locality map (3018 CC Rietpoort) indicating proposed borrow pits

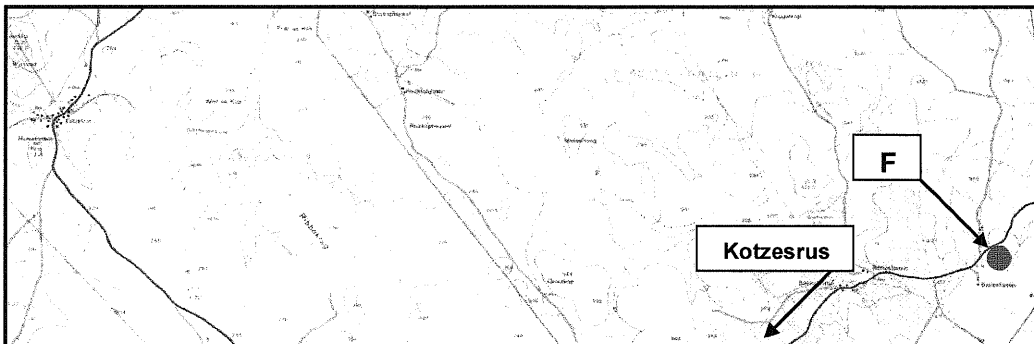


Figure 4. Locality map (3017 DD Kotzesrus)

4. APPROACH TO THE STUDY

4.1 Method of survey

The approach followed in the archaeological study entailed a foot survey of each of the proposed borrow pits (refer to Figures 1-4)

Archaeological heritage remains located during the study were recorded on a Gecko 201 GPS unit set on map datum wgs 81.

The site visit and assessment took place on the 10th and 11th of April, 2007.

A desk top study was also undertaken.

4.2. Constraints and limitations

There were no constraints or limitations associated with the proposed project.

4.3 Potential risks

There are no archaeological risks associated with the proposed project.

4.4 Results of the desk top study

Two studies have been undertaken in the Bitterfontein/Rietpoort area. Low density scatters of Middle Stone Age and Later Stone Age (LSA) artefacts were documented during a study of an overhead powerline and underground water pipeline in the Bitterfontein area (Kaplan 2006).

A few LSA tools were documented during a study for a proposed water pipeline in Rietpoort (Kaplan 2002).

5. LEGISLATIVE REQUIREMENTS

The following section provides a brief overview of the relevant legislation with regard to the archaeology of the proposed borrow pit sites.

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

The National Heritage Resources (NHR) Act requires that "...any development or other activity which will change the character of a site exceeding 5 000m², or the rezoning or change of land use of a site exceeding 10 000 m², requires an archaeological impact assessment"

The relevant sections of the Act are briefly outlined below.

5.2 Archaeology (Section 35 (4))

Section 35 (4) of the NHR stipulates that no person may, without a permit issued by HWC, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object.

5.3 Burial grounds and graves (Section 36 (3))

Section 36 (3) of the NHR stipulates that no person may, without a permit issued by the South African Heritage Resources Agency (SAHRA), destroy, damage, alter, exhume or 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.

6. FINDINGS

6.1 BP A (31° 01 469 E 18° 15 210)

The proposed borrow pit is located above of (i.e. south of) an existing borrow pit on relatively steep north facing slopes on red coloured sands, alongside DR2231 (Figures 5 & 6). The proposed site is already fairly severely degraded. It is covered in low bush, scrub and succulent vegetation. Some evidence of grazing is apparent. No significant landscape features occur on the site. The surrounding land use comprises natural veld. The lower slopes (alongside the existing borrow pit) are littered with small pieces of quartz, while less quartz is visible on the higher slopes.

Findings: Several possible quartz chunks were found.

The archaeological remains have been rated as having low local significance.

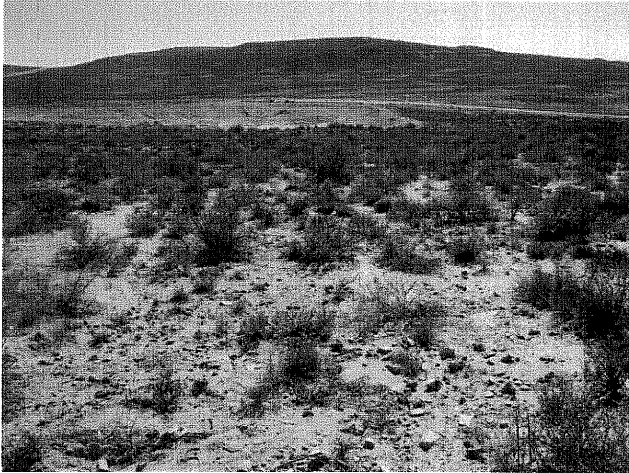


Figure 5. BP A. View of the site facing north

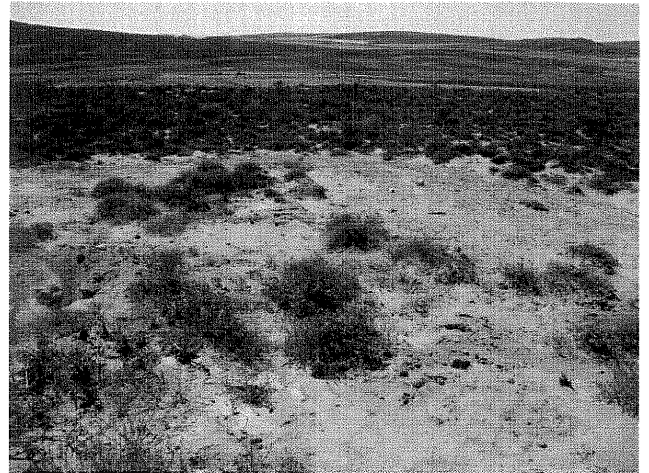


Figure 6. BP A. View of the site facing north

6.2 BP B (31° 02 000 E 18° 13 177)

The proposed borrow pit is located on relatively steep north facing slopes, on red sands, alongside DR2231 (Figures 7 & 8). The proposed site is covered in low bush, scrub and succulent vegetation. Some evidence of grazing is also visible. The site is fairly degraded, with some erosion and sheet wash apparent. There is a gravel track intersecting the property alongside DR2231. Some quartz is visible on the site, but far less than was apparent in BP A. No significant landscape features occur on the proposed site. The surrounding land use comprises natural veld.

It is important to note that there are two very visible burials located alongside DR2231, outside the existing road reserve.

Findings: One Middle Stone Age quartzite flake was found.

The archaeological remains have been rated as having low local significance.

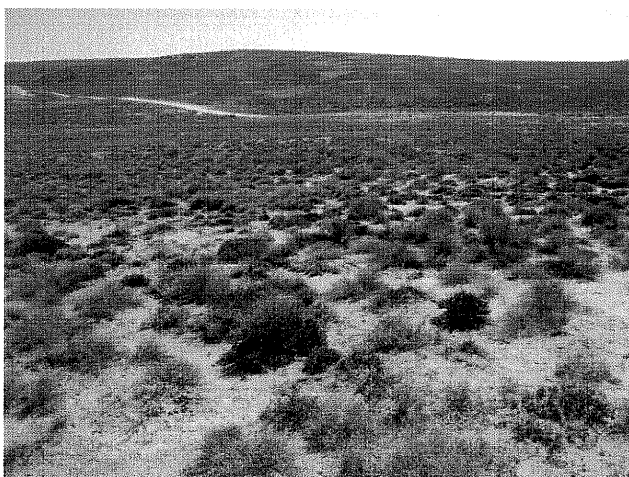


Figure 7. BP B. View of the site facing north

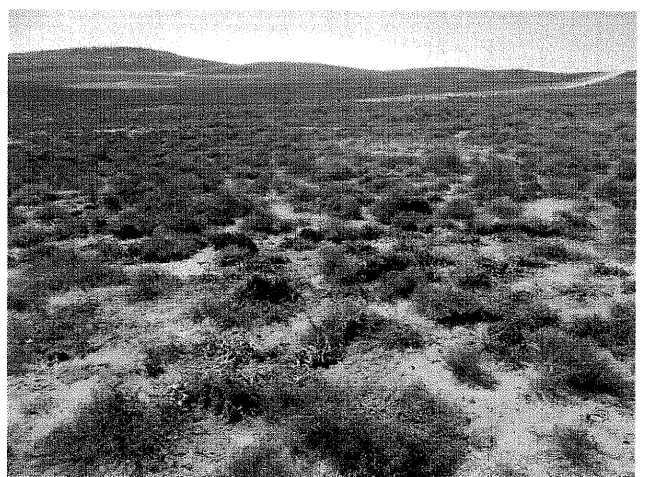


Figure 8. BP B. View of the site facing north

6.3 BP C & D (31° 01 150 E 18° 10 272)

The proposed sites (C & D) are located adjacent to each other, on relatively steep, south facing slopes alongside DR2231 (Figures 9 & 10). A modern farmhouse is located on the opposite side of the road. The proposed site is severely degraded as a result of overgrazing. Extensive sheet erosion and several erosion dongas and drainage lines are visible on the site. Several small, stone and concrete farm dams occur on the eastern boundary of BP C. An existing (small) borrow pit is also located alongside DR2231. There are no significant landscape features occurring on the site. The surrounding land use comprises natural veld.

Findings: No archaeological remains were found.

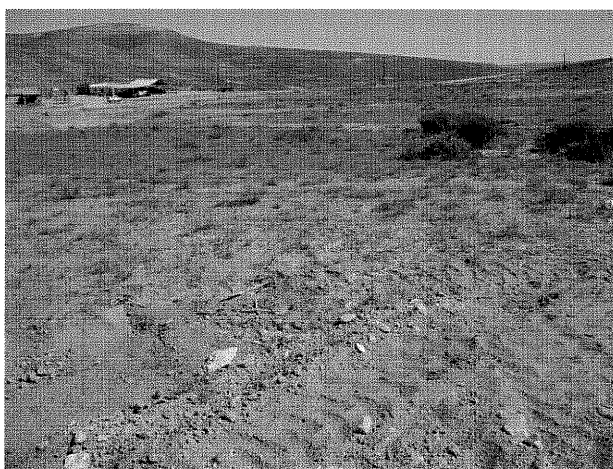


Figure 9. BP C. View facing south west



Figure 10. BP D. View facing south east

6.4 BP E (30° 57 355 E 18° 02 010)

The proposed borrow pit is located to the south of DR2231, just outside the small village of Rietpoort. The south facing slopes are quite gentle and covered in bush and scrub on red sands (Figures 11 & 12). Overgrazing of the surrounding landscape is very apparent. Several small outcroppings of sandstone occur nearer to the gravel road. There are no significant landscape features occurring on the site. The surrounding land use comprises natural veld.

Findings: One quartz flake was found.

The archaeological remains have been rated as having low local significance.

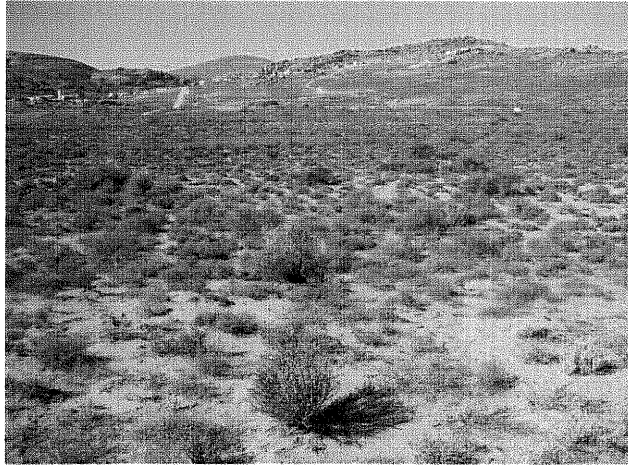


Figure 11. BP E. View facing east. Rietpoort can be seen in the distance



Figure 12. BP E. View facing west

6.5 BP F (30° 59 151 E 17° 59 201)

The proposed site is located alongside the DR2231. An existing borrow pit is located directly alongside the road. The north facing slopes of the proposed site, are covered in thick bush and scrub (Figures 13 & 14). The lower slopes are fairly disturbed as a result of grazing and excavation of road gravel. A farm road runs alongside the eastern boundary of the proposed site. A small outcropping of granite is located in the south western corner of the proposed site. The surrounding hills are dotted with granite outcroppings.

Findings: One quartz utilised flake and one quartz chunk were found among the small cluster of granite in the south western portion of the site.

The archaeological remains have been rated as having low local significance.

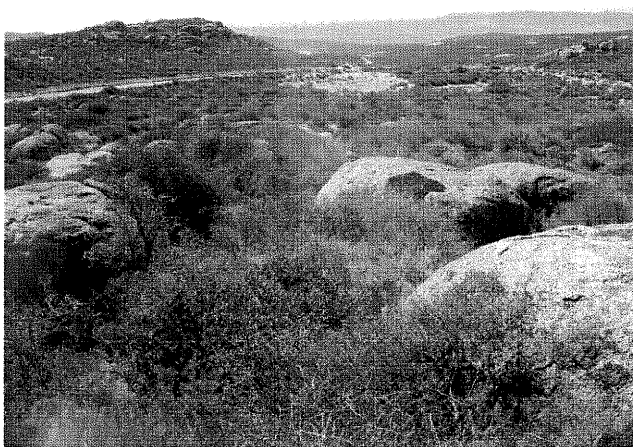


Figure 13. BP F. View facing north

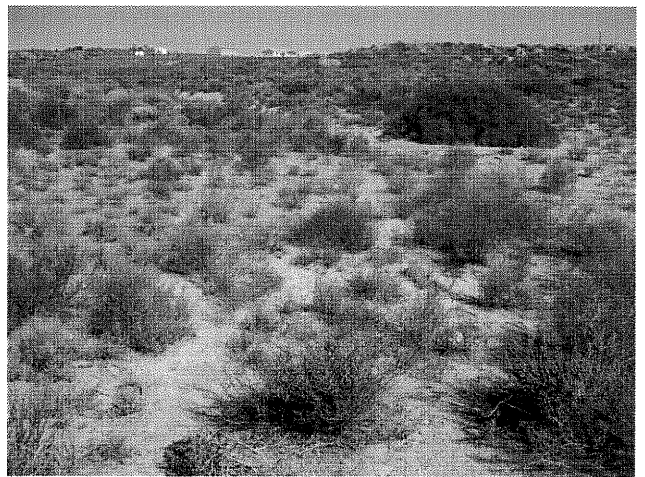


Figure 14. BP F. View facing south west

7. IMPACT STATEMENT

The impact of the proposed project on archaeological heritage remains is likely to be **low**.

The probability of locating significant archaeological heritage remains during implementation of the project is likely to be improbable.

8. CONCLUSION

The Phase 1 Archaeological Impact Assessment of six borrow pits alongside DR2231 in Bitterfontein/Rietpoort in the Northern Cape Province has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

9. RECOMMENDATIONS

The following recommendations are made:

- Should any unmarked human remains be disturbed, exposed or uncovered during earthworks, these must immediately be reported to the South African Heritage Resources Agency (Mrs Mary Leslie or Dr A. Jerardino 021-462 4502).
- The graves alongside DR2231 near BP B must not be disturbed or damaged in any way. The graves should be demarcated and taped off during upgrading of the road.

10. REFERENCES

Kaplan, J. 2006. Phase 1 Archaeological Impact Assessment Bitterfontein boreholes, pipeline and powerlines West Coast District Municipality. Report prepared for EnviroAfrica. Agency for Cultural Resource Management.

Kaplan, J. 2002. Archaeological study Rietpoort Water Supply Scheme. Report prepared for EnviroAfrica. Agency for Cultural Resource Management