

**ARCHAEOLOGICAL IMPACT ASSESSMENT  
OF THE PROPOSED EXTENSION OF TWO BORROW PITS  
ON PTN. 7 OF FREDERICKS DAL 60 & PTN. 10 OF  
ELIZABETHFONTEIN 59, CEDERBERG,  
CLANWILLIAM DISTRICT, WESTERN CAPE**

(Assessment conducted under Section 38 (8) of the National Heritage Resources Act as part  
of a Heritage Impact Assessment)

Prepared for:

**Vidamemoria Heritage Consultants**  
Att: Ms Quahnita Samie  
E-mail: quahnita@vidamemoria.co.za

On behalf of:

Nadeson Consulting Services

Prepared by:  
Madelon Tusenius  
Natura Viva cc  
PO Box 12410  
Mill Street, Cape Town  
8010  
Phone: (021) 462 3622  
E-mail: naturaviva@universe.co.za

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## EXECUTIVE SUMMARY

Natura Viva cc was appointed by Vidamemoria Heritage Consultants on behalf of Nadeson Consulting Services to undertake an Archaeological Impact Assessment (AIA) for the proposed extension of two existing borrow pits, DR2196/18.55/R/130 (Vidamemoria pit no. 125) and DR2196/28.5/L/30 (Vidamemoria pit no. 126), in the northern Cederberg in the area to the north of the Pakhuis Pass. Clanwilliam lies between 22 and 26 km to the southwest of the affected areas and the Doring River about 8 km to the north. Material excavated from the proposed extensions will be used for the re-gravelling of the DR2196. No new access roads will need to be constructed and both sites will be rehabilitated and re-vegetated once mining is complete.

This study forms part of the Heritage Impact Assessment triggered by the development. The brief for the study was a field visit and short report identifying and assessing archaeological resources and any impact on them, an assessment of significance and recommendations regarding any mitigation required.

The field assessment was conducted on foot on 13 August 2012.

Pit 125 is located at the base of a northwest-facing hill in a bend of the DR2196.

Pit 126 lies within the road reserve situated at the base of a hillside adjacent to the DR2196.

No archaeological remains were observed at either of the proposed extensions even though the northern Cederberg has a rich archaeological heritage. No rocky outcrops were located in the immediate vicinity of the affected areas so there is unlikely to be any direct impact on painting sites if the proposed extensions are developed. The affected sites themselves are thus considered to be of low archaeological heritage significance, although the surrounding area provides a significant context.

No further archaeological studies or mitigation are recommended for these particular pits as there will be no direct impact on archaeological heritage resources at the affected sites.

If any human remains are found during the development of the proposed pits, work in that area must cease and the South African Heritage Resources Agency (SAHRA) must be notified immediately.

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## 1. INTRODUCTION

Natura Viva cc was appointed by Vidamemoria Heritage Consultants on behalf of Nadeson Consulting Services to undertake an Archaeological Impact Assessment (AIA) for the proposed extension of two existing borrow pits, DR2196/18.55/R/130 (Vidamemoria pit no. 125) and DR2196/28.5/L/30 (Vidamemoria pit no. 126), situated in the northern Cederberg approximately 26 and 22 km to the north-east of Clanwilliam in the Olifants River Valley respectively. The Doring River lies to the north of the sites. Material excavated from the proposed extensions will be used to re-gravel the DR2196 which lies north of the Pakhuis Pass region of the northern Cederberg. No new access roads will need to be constructed and both sites will be rehabilitated and re-vegetated once mining is complete.

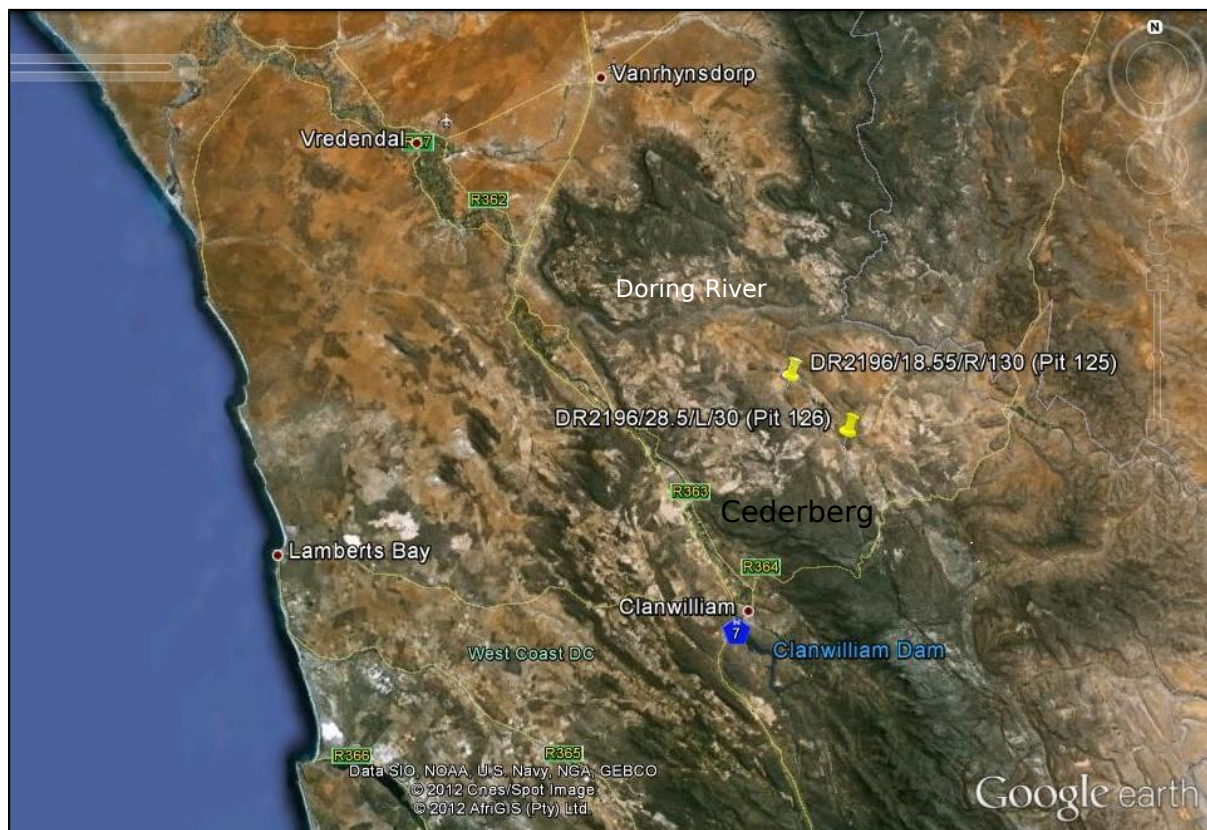


Figure 1: Google earth image showing the location of the proposed extensions of two existing borrow pits DR2196/18.55/R/130 (Vidamemoria pit no. 125) and DR2196/28.5/L/30 (Vidamemoria pit no. 126). The distance between the pits and Clanwilliam is approximately 26 and 22 km respectively. The Doring River lies over 8 km to the north of Pit 125. The relevant 1:50 000 topographical maps are 3118DD Bulshoek and 3219AA Pakhuis.

## 2. LEGAL FRAMEWORK

Section 38 of the National Heritage Resources Act (Act 25 of 1999) is triggered by certain types of development, including changes of character to an area exceeding 5 000m<sup>2</sup>, and makes provision for compulsory Heritage Impact Assessments to assess the potential impacts of such proposed developments on heritage resources. In terms of Section 38(1), a

Notification of Intent to Develop (NID) form was submitted to Heritage Western Cape (HWC) by Vidamemoria. Following comment from HWC (case number 120130JL10) an AIA was included amongst the requirements according to Section 38(8) of the Act.

### **3. TERMS OF REFERENCE**

The terms of reference for the AIA stipulated a field visit to locate and map archaeological resources, a short report dealing with the field observations, an assessment regarding the significance of the resources (in the context of other studies in the area) and any impacts on them, as well as recommendations regarding any mitigation required.

### **4. STUDY APPROACH**

#### **4.1 Methods**

Fieldwork for both pits was undertaken by the author on 13 August 2012. Site plans indicating the affected areas were provided by Nadeson for the Phase 1 survey. Each area was covered on foot and tracks were recorded by a Garmin GPSMAP 62s set on the WGS84 datum (Figures 2 & 7). Both sites were extensively photographed.

#### **4.2 Limiting factors**

Visibility of archaeological remains on the ground was generally good at both sites.

### **5. DESCRIPTION OF AFFECTED ENVIRONMENT AND SITES**

#### **5.1 Archaeological background:**

The Cederberg, Olifants River Valley and the Doring River area have been a focus of human habitation for well over five hundred thousand years as evidenced by the archaeological remains dating from the Early Stone Age (ESA), Middle Stone Age (MSA), Later Stone Age (LSA) hunter-gatherers and pastoralists and colonial times (Orton & Hart 2005; Halkett et al. 1997). Most Stone Age archaeological material observed has been scatters of artefacts lying on the current land surface, usually as a result of erosion or disturbance, but some MSA and many LSA sites are also found in primary context in rock shelters. Rock art is prevalent in the rocky outcrops in the region and that of the northern Cederberg has been the subject of much academic research (e.g. Maggs & Sealy 1983; Manhire 1998; Manhire et al 1983; Yates et al. 1985; Yates & Manhire 1991) and also popular books (e.g. Deacon 1994; Parkington 2003). Areas such as the Sevilla Trail, Leipoldt's Grave and Bushmanskloof are well-known to the public as sites where rock paintings can be viewed. A number of excavations have been undertaken at sites in the general Pakhuis Pass region, for example, De Hangen (Parkington & Poggenpoel 1971) and Klein Kliphuis Shelter (Van Rijssen 1992). More recent excavations at the latter site have revealed a series of MSA layers below the more common Late Holocene LSA 'bedding and ash' deposits (Orton & Mackay 2008).

The heritage impact assessment of 7 proposed dam sites for the Olifants/Doring River Basin study (Halkett et al. 1997) is relevant to the present study as the site for the Melkbosrug Dam, in the area of the Doring and Brandewyn Rivers, lies approximately 8 km to the northeast of Pit 125. A large number of archaeological sites were recorded in the caves and rock shelters of the river ravines and side kloofs. These include important rock painting sites, as well as caves with archaeological deposits. Numerous pre-colonial and colonial graves occur in the soft, deep soils of outwash fans of the rivers (Halkett et al. 1997). Closer to the proposed Pits 125 and 126, many archaeological sites, including rock painting sites, have been recorded on rocky slopes and next to the Brandewyn River which lies approximately two km to the north and east of the pits (Manhire & Patrick, in Samie 2012).

## **5.2 Borrow pit DR2196/18.55/R/130 (Vidamemoria pit no. 125)**

**Approximate area:** 18 800m<sup>2</sup>

**Location:** S 31° 56' 45.95" E 18° 57' 06.16"

**Farm name and number:** Portion 7 of Fredericks Dal 60

**Environment:** The proposed extension to an existing pit is situated at the base of a northwest-facing hill-slope in a bend of the DR2196. The affected area is bounded by the road to the north-east and the hill on the eastern side (Figure 2). The latter forms a plateau on its crest (Figures 3 and 6). As the western and southern limits of the affected polygon were not evident on the ground, a larger area than the polygon was surveyed. Bokkeveld mudrock of the Gydo Formation outcrops along the lower and steeper slopes of the hillside over most of the site. It is overlain by gravelly colluvium. There is evidence of sheet-wash and several small gullies drain water from the slope of the hill. The western part of the affected area is relatively flat-lying and the remains of 'heuweltjies' (fossil termitaria) are evident, also on the Google earth image (Figure 2). There is not much vegetation within the existing pit, partly filled with water at the time of the survey, while scattered euphorbias, asparagus plants, 'vygies' and kraalbos (*Galenia africana*) are found across the rest of the site. The good rains have resulted in patches of low grass, herbs and creeping daisies but the visibility of archaeological material on the ground has not been negatively affected. The land is not presently used for any specific purpose. The Brandewyn River lies approximately 2.5 km to the east of the affected area. Archaeological sites have been recorded along rocky slopes over 4 km to the south of the proposed pit (Manhire & Patrick, in Samie 2012), but no obvious rock shelters or overhangs where paintings may be found occur in the immediate area of the pit.

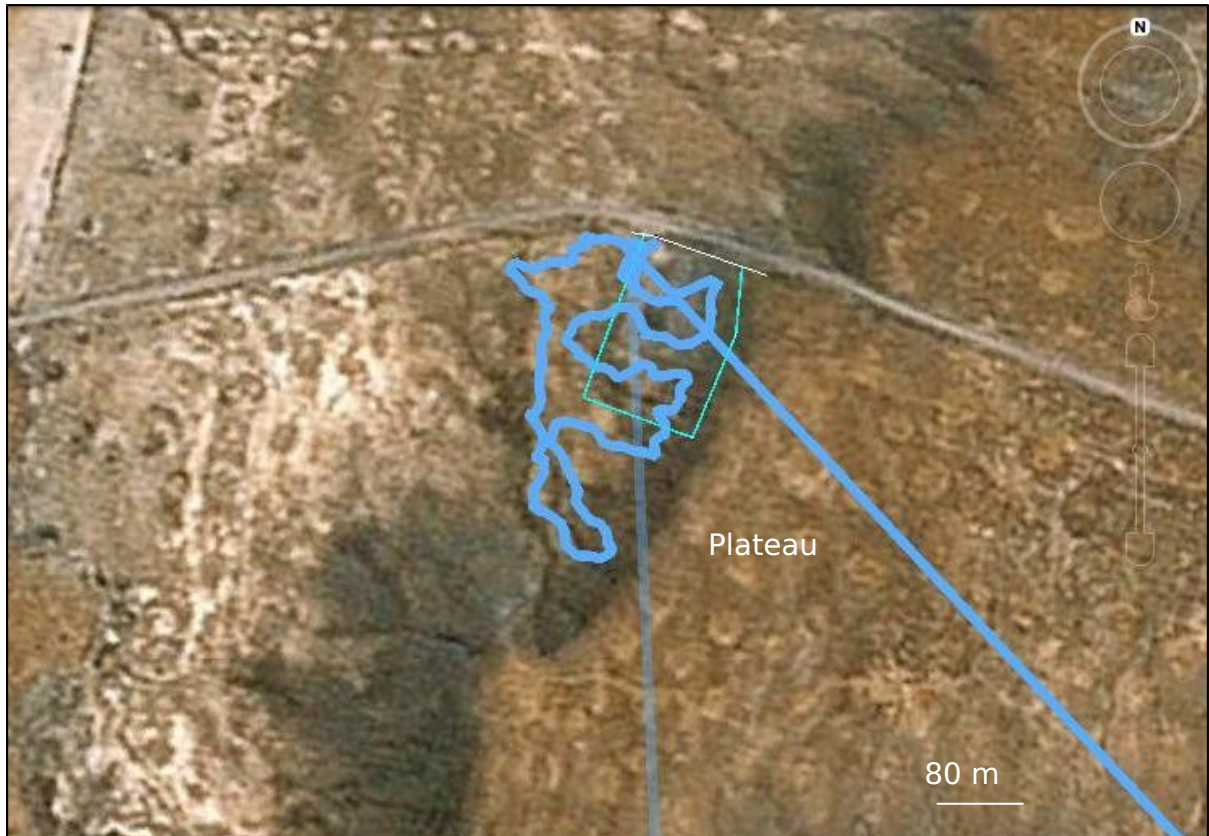


Figure 2: Google earth image showing the proposed extension of the existing borrow pit 125, the tracks of the field survey and the plateau to the southeast of the proposed extension. The relevant 1:50 000 topographical map is 3118DD Bulshoek. Please note that the straight blue lines do not indicate survey tracks. The Google earth image is unfortunately not sharp.



Figures 3 and 4: Pit 125 – view towards the southeast showing the existing pit and the plateau; view of the affected area towards the north. The water-filled existing pit is visible in the middle ground.



Figures 5 and 6: Pit 125 – view towards the northwest of the existing pit with heaps of mudstone; photo taken from the northeast corner of the affected area towards the southwest. The edge of the plateau of the adjacent hill is visible on the left.

**Results of the survey:** No archaeological remains were observed.

### 5.3 Borrow pit DR2196/28.5/L/30 (Vidamemoria pit no. 126)

**Approximate area:** 17 500m<sup>2</sup>

**Location:** S 32° 00' 28.78" E 19° 01' 12.50"

**Farm name and number:** Portion 10 of Elizabethfontein 59

**Environment:** The proposed extension to an existing borrow pit lies within the road reserve situated at the base of a hillside adjacent to the DR2196 (Figures 7, 8, 10). The affected area, which slopes down to the road, is bounded by the road to the southwest and a fence to the northeast. The existing pit lies in the northern section of the polygon but was not very obvious on the ground (Figure 8). It appears that a portion of the proposed extension may already have been quarried as a large part of the affected area has been dug up, rehabilitated and re-vegetated with grass (Figures 10, 11). The only area which has not been disturbed is the strip of land next to the fence where euphorbias, 'vygies' and shrubs such as *Galenia africana* and *Eriocephalus* occur (Figure 9). Weathered, thinly-laminated Bokkeveld Group mudrocks and sandstones are overlain by gravelly colluvium. The visibility of archaeological material on the ground was generally good. Archaeological sites have been recorded along the Brandewyn River to the east and on rocky slopes three or more km to the west and south of the affected area (Manhire & Patrick, in Samie 2012).



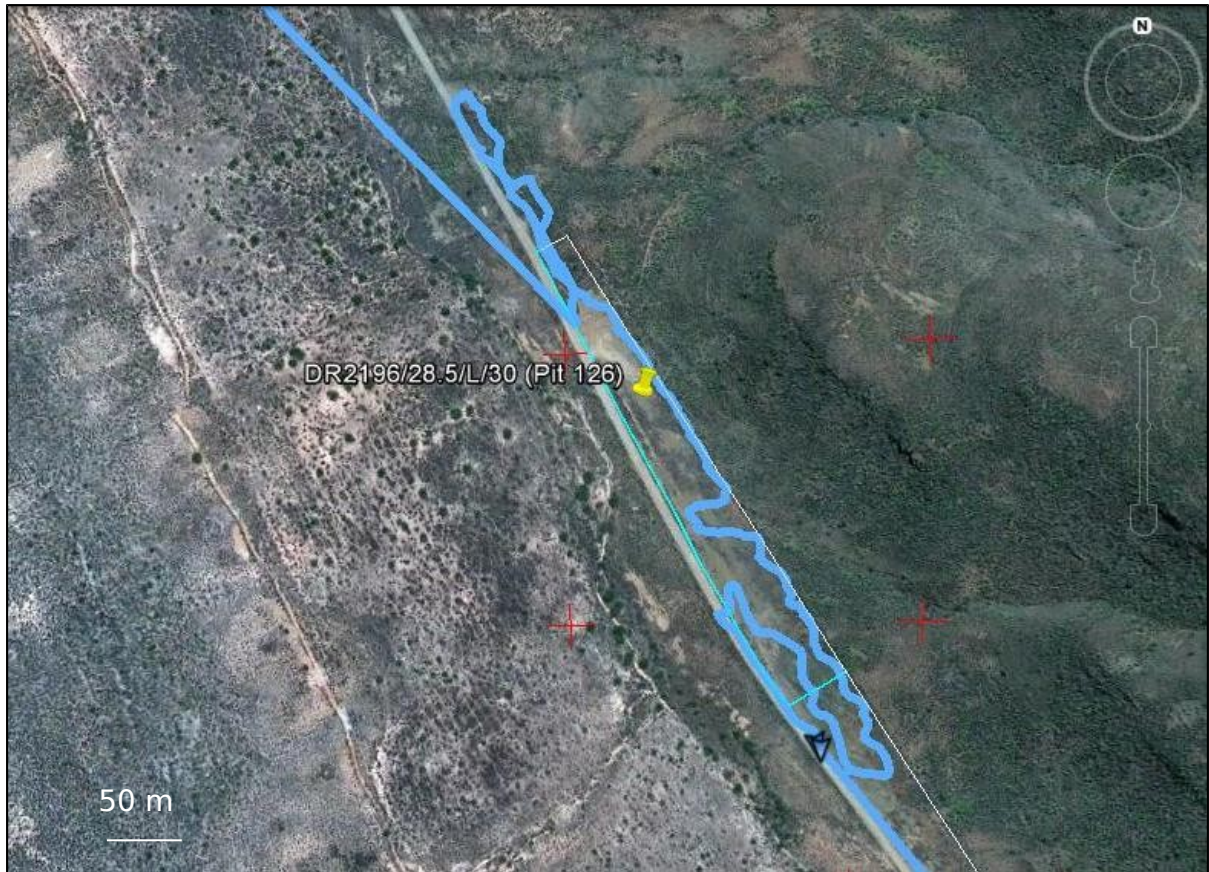


Figure 7: Google earth image showing the proposed extension of the existing borrow pit 126 and the tracks of the field survey. The relevant 1:50 000 topographical map is 3219AA Pakhuis. Please note that the straight blue lines do not indicate survey tracks.



Figures 8 and 9: Pit 126 – view towards the southeast with the original borrow pit filled with water; view towards the south showing the less disturbed area along the fence.



Figures 10 and 11: Pit 126 – view across the affected area towards the northwest with grass planted on the rehabilitated area; another view (towards the east) showing rehabilitation of the southern pit area.

**Results of the survey:** No archaeological remains were observed in either the undisturbed or rehabilitated areas.

## 6. SIGNIFICANCE AND RECOMMENDATIONS

No archaeological remains were observed at either of the proposed extensions even though the northern Cederberg has a rich archaeological heritage. No rocky outcrops were located in the immediate vicinity of the affected areas so there is unlikely to be any direct impact on painting sites if the proposed extensions are developed. The affected sites themselves are thus considered to be of low archaeological heritage significance, although the surrounding area provides a significant context.

No further archaeological studies or mitigation are recommended for these particular pits as there will be no direct impact on archaeological heritage resources at the affected sites.

If any human remains are found during the development of the proposed pits, work in that area must cease and the South African Heritage Resources Agency (SAHRA) must be notified immediately.

## 7. REFERENCES

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## **8. ACKNOWLEDGEMENTS**

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