

**ARCHAEOLOGICAL IMPACT ASSESSMENT
OF A PROPOSED BORROW PIT ON FARM 397, GOUDA,
TULBAGH DISTRICT, WESTERN CAPE**

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

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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 development of a proposed new borrow pit TR2303/3.4/L/100 (Vidamemoria pit number 2) approximately 2 km northwest of Gouda. Material from the proposed borrow pit will be used for the re-gravelling of portions of the TR02303. It is proposed to rehabilitate the site after development. Dr L Webley of ACO Associates acted as the Principal Investigator supervising the study done by M Tusenius of Natura Viva cc.

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 18 February 2012.

The proposed pit site lies in a disturbed, ploughed field. Isolated quartzite artefacts and sparse clusters of flaked material were observed in the affected area. Other artefacts were noted in a heap of stones in an adjoining field. Most of the stone artefacts seen, with the exception of a possible crude biface, appear to be of indeterminate age as no convincing diagnostic tools were seen, but it is probable that they are Early Stone Age (ESA).

The disturbed context of the stone artefacts indicates that the material is in a secondary context and is therefore of low archaeological heritage significance. No significant impact on such resources is expected if the proposed borrow pit is developed. No further archaeological studies or mitigation are recommended.

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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) at the site of a proposed new borrow pit TR2303/3.4/L/100 (Vidamemoria pit number 2) approximately 2 km northwest of Gouda. Material from the proposed borrow pit will be used for the re-gravelling of portions of the TR02303. No new roads would have to be constructed as the quarry will be accessible from existing roads and tracks. The pit can be further extended in a westerly and south-westerly direction. It is proposed to rehabilitate the site after development.



Figure 1: Google earth image showing the location of the proposed new borrow pit TR2303/3.4/L/100 (Vidamemoria pit number 2) approximately 2 km northwest of Gouda and approximately 11km west of Tulbagh. The Voëlvlei dam lies approximately 6 km to the south of the affected area. The relevant 1:50 000 topographical map is 3319AC Tulbagh.

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 000m², 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 110928JB36) 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. The report was to be overseen by Dr Lita Webley of ACO Associates as the Principal Investigator.

4. STUDY APPROACH

4.1 Methods

Fieldwork for the proposed pit was undertaken by the author on 18 February 2012. A site plan indicating the affected area was provided by Nadeson for the Phase 1 survey. The area was covered on foot and archaeological occurrences and tracks were recorded by a Garmin GPSMAP 60CSx set on the WGS84 datum (Figure 2). Photographs were taken of the archaeological finds and their context.

4.2 Limiting factors

Visibility of archaeological remains on the ground was good.

5. DESCRIPTION OF AFFECTED ENVIRONMENT AND SITES

5.1 Archaeological background

Most of what is known about the Stone Age archaeology of the Gouda and Porterville region of the Swartland is derived from a couple of research projects (Hart 1987, Smith et al 1991) and various Archaeological Impact Assessments (for example, Hart 2010 and Orton 2012). Hart's survey in the Porterville area (Hart 1987) revealed that high concentrations of Early Stone Age (ESA) and Middle Stone Age (MSA) material are ubiquitous and subsequent impact studies have confirmed that this is the case in almost the entire Berg River Valley of the Swartland (Hart 2010). These occurrences are often associated with rivers where people would have had access to quartzite cobbles for the manufacture of stone tools. Only ESA artefacts have been found in a few studies closer to Gouda (Orton 2012), while sparse evidence of the MSA was noted with ESA material near Tulbagh (Hart 2010). Excavations done at Voëlvlei and Driebos rock shelters (Smith et al 1991) revealed a Later Stone Age (LSA) San and Khoekhoen presence. Rock paintings have been observed in several rock shelters in the mountains, including the two above-mentioned sites (Smith et al 1991).

5.2 Borrow pit TR2303/3.4/L/100 (Vidamemoria pit number 2)

Approximate area: 155 x 155 m

Location: S 33° 16' 91.7" E 19° 01' 74.9"

Farm name and number: Farm No. 397, Tulbagh

Environment: The affected area is a heavily disturbed, ploughed, open field on an east-facing slope to the west of the TR02303 between Gouda and Porterville, approximately 30 km to the north (Figures 2 – 6). It is surrounded by typical Swartland agricultural fields in most directions, with the Klein Berg River and the slopes of the Obiekwa mountains further away to the east. The affected area is bounded by the road to the east, a reservoir to the

north, and sparse Port Jackson shrubs and an irrigation ditch to the west and south. A line of blue gum trees lies parallel to the road in the north-eastern corner of the field and also in the south-eastern corner. A layer of sandy colluvial soil with dispersed ferricrete gravels overlies greyish to reddish brown, silty, gravelly sand and reddish brown shale of the Malmesbury Group. As most of the area has been ploughed, archaeological visibility on the ground was good. The western section close to the irrigation ditch was covered by sparse, dried grass (Figure 4) but this did not affect the visibility.



Figure 2: Google earth image showing the proposed borrow pit 2, the tracks and waypoints of the field survey.



Figure 3: View of the proposed borrow pit site towards the west.



Figure 4: View from the south-western corner towards the line of blue gum trees along the fence in the northeast of the study area.



Figures 5 and 6: Views towards the line of trees delineating the southern boundary; view looking east with ferricrete gravels in the foreground.

Results of the survey: Isolated stone artefacts and sparse clusters of flaked material were observed in the affected area (Figures 7 – 11). They were recorded as waypoints (see the Appendix) and photographed. They all appear to be made of quartzite. A heap of stone removed from the ploughed area in the adjoining field was inspected and several large quartzite flakes, flaked cobbles, cores and chunks were observed (Figures 14 and 15). Most of the stone artefacts seen appear to be of indeterminate age, but one possible crude, very weathered biface was seen (Figure 7). No other convincing diagnostic tools were seen but, given what is known about the archaeology of the general area (see section 5.1), it is probable that they are ESA, with some possible MSA elements. Many of them are weathered and patinated due to transport by water and long exposure to ferruginous ground water. The context of the material is obviously disturbed.



Figures 7, 8 and 9: Examples of some of the scattered artefacts observed in the ploughed field. The possible crude biface is on the left. The scale is in cm.



Figures 10 and 11: Further examples of artefacts found in the ploughed field. The scale is in cm.



Figures 12 and 13: Heap of stone in the adjoining field to the west of the affected area; detail of the ferricrete and other blocks of stone. The ruler is 15 cm in length.



Figures 14 and 15: Examples of the quartzite artefacts found in the stone heap. Some of them are weathered and patinated, while others are fresher-looking. The ruler is 15 cm in length.

6. SIGNIFICANCE AND RECOMMENDATIONS

The disturbed context of the stone artefacts indicates that the material is in a secondary context and is therefore of low archaeological heritage significance. No significant impact on such resources is expected if the proposed borrow pit is developed. No further archaeological studies or mitigation are recommended.

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

7. REFERENCES

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Smith, A.B., Sadr, K., Gribble, J. & Yates, R. 1991. Excavations in the South-Western Cape South Africa, and the archaeological identity of prehistoric hunter-gatherers within the last 2000 years. South African Archaeological Bulletin 46: 71-91.

8. ACKNOWLEDGEMENTS

Ms Quahnita Samie of Vidamemoria Heritage Consultants is thanked for commissioning this study and providing background information. Dr Lita Webley of ACO Associates acted as supervising Principal Investigator and provided valuable guidance regarding AIA requirements. Jayson Orton, ACO, kindly provided a copy of his recent report. Dr John Almond, Natura Viva cc, made helpful comments on the draft.

9. APPENDIX

Table 1: Pit 2 waypoints

Waypoint (MT)	South	East	Description of material found
347	33 16 54.0	19 01 12.7	Possible, crude, weathered biface (Figure 7)
348	33 17 01.2	19 01 39.0	Heap of stone with several artefacts in adjacent field (Figures 12 – 15)
349	33 17 02.9	19 01 45.6	Two flakes with cortex, one large (approx. 13 cm in length)
350	33 17 02.0	19 01 49.1	Chunk
351	33 17 01.2	19 01 45.3	Core and flake
352	33 17 00.5	19 01 42.2	Chunk
353	33 16 59.5	19 01 43.5	Two flakes, core/chunk (Figure 10)
354	33 16 57.7	19 01 44.9	Several flakes
355	33 16 57.0	19 01 41.6	Thickened flake, core (Figure 9)
356	33 16 57.3	19 01 41.6	Two flakes (Figure 11)
357	33 16 56.3	19 01 39.4	Chunk
358	33 16 55.7	19 01 43.7	Four flakes, including fresher-looking one with cortex (Figure 8)