

**ARCHAEOLOGICAL IMPACT ASSESSMENT
OF THE PROPOSED EXTENSION OF A BORROW PIT ON
ERF 521, UNIONDALE, EDEN DISTRICT MUNICIPALITY,
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 Aurecon South Africa (Pty) Ltd to undertake an Archaeological Impact Assessment (AIA) of the proposed extension of an existing borrow pit MR0401/11.7/0.25R (Vidamemoria pit no. 304) in the north-eastern part of Uniondale, Eden District Municipality, Western Cape. This is a revised polygon for an extension which was largely rejected on botanical and heritage grounds (Aurecon 2014). The latter was due to the presence of an old farm graveyard recorded by Halkett (2013). Material excavated from the pit will be used for the maintenance of gravel roads in the area. The proposed access track will be via an existing servitude to the northwest of the polygon. No information about the proposed rehabilitation of the extension was provided to the author.

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 15 August 2014. The proposed pit extension is located in a highly disturbed area, partly covered with scattered bushes. The visibility of archaeological material on the ground was generally good.

No further graves were noted, nor were any Stone Age or historical archaeological remains observed within the affected area, although a stone-walled kraal situated outside the polygon is of obvious historical interest.

With the exception of the cemetery, most of the affected area is of low archaeological heritage significance. The cemetery is however of high local significance and should be conserved and protected during mining activities. It is recommended that:

- The graveyard must be fenced and a buffer zone established. Halkett (2013) suggests that the width of the buffer be determined by the engineers taking into account the depth of the proposed mining;
- The location of the cemetery must be taken into account when the route of the future access track to the northwest of the polygon is finally laid out;
- If any human remains are found during the development of the proposed extension, work in that area must cease, the remains must be protected in situ and Heritage Western Cape (HWC) must be notified. A permit for the exhumation and reburial of any such remains will have to be issued by the South African Heritage Resources Agency (SAHRA). All such work will be to the cost of the developer.

Although the stone-walled kraal does not lie within the polygon, it is of local heritage significance. The present access route passes directly to the east of it and further damage may be inflicted on the historical remains by heavy vehicle traffic. The proposed northern access route is therefore to be recommended, as long as the buffer zone around the graveyard is respected.

No significant additional impact on the cemetery and kraal are expected during the proposed extension of the pit if the above recommendations are adhered to. 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 Aurecon South Africa (Pty) Ltd to undertake an Archaeological Impact Assessment (AIA) of the proposed extension of an existing borrow pit MR0401/11.7/0.25R (Vidamemoria pit no. 304) in the north-eastern part of Uniondale, Eden District Municipality, Western Cape (Figure 1). This is a revised polygon for an extension which was largely rejected on botanical and heritage grounds (Aurecon 2014). The latter was due to the presence of an old farm graveyard which was recorded by Halkett (2013). Material excavated from the pit will be used for the maintenance of gravel roads in the area. The proposed access track will be via an existing servitude to the northwest of the polygon. No information about the proposed rehabilitation of the extension was provided to the author.

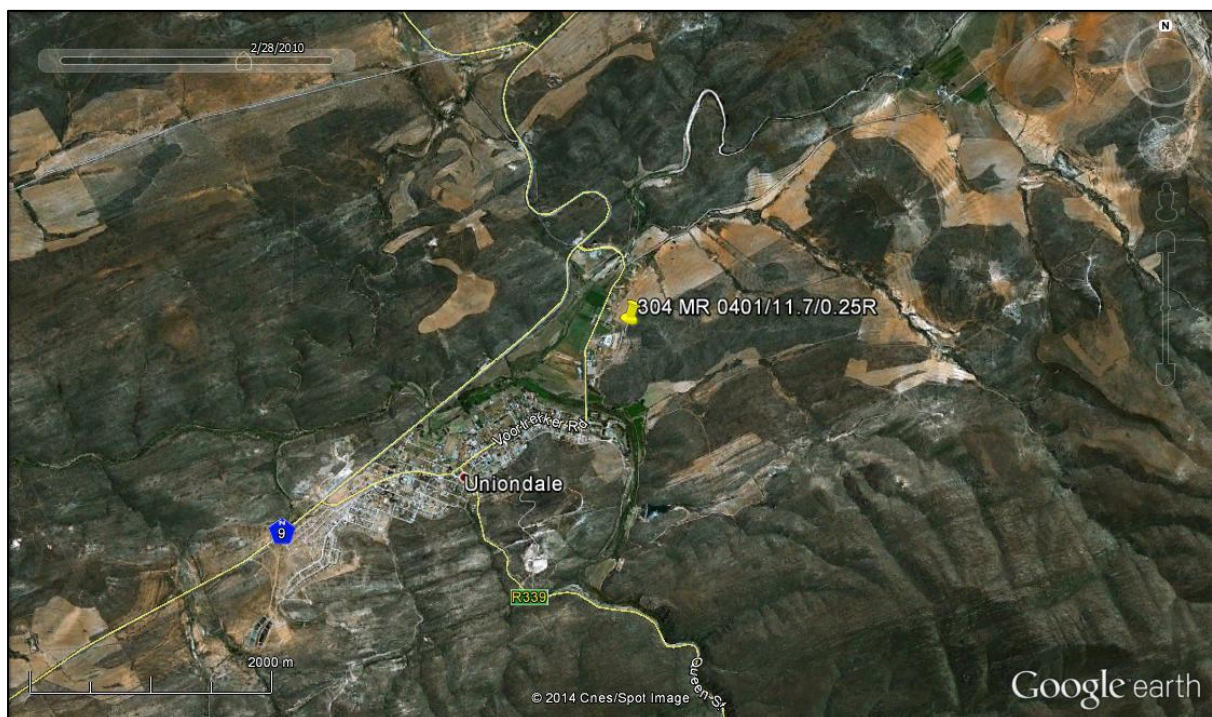


Figure 1: Google earth image showing the location of the proposed extension of borrow pit MR0401/11.7/0.25R (Pit 304). The relevant 1:50 000 topographical map is 3323CA Uniondale.

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 ref 14040407GT0409E) 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 the proposed pit extension was undertaken on 15 August 2014 . A polygon and site plan indicating the revised proposed extension were provided by Aurecon for the Phase 1 survey. The area was covered on foot and the tracks were recorded by a Garmin GPSMAP 62s set on the WGS84 datum (Figure 2). The site was extensively photographed.

4.2 Limiting factors

The visibility of archaeological material on the ground was generally good.

5. DESCRIPTION OF AFFECTED ENVIRONMENT AND SITE

5.1 Archaeological background:

The above-mentioned AIA by Halkett (2013) of the previously proposed extension of Pit 304 is obviously pertinent to the present proposal. Halkett inspected the area following the identification of a single gravestone at the initial site identification stage of the proposed borrow pit. It was expected that additional, less formally marked graves could be present as it is unusual to find single graves in such contexts. He subsequently recorded at least an additional 16 graves or possible graves. The graves consist of low mounds of disturbed earth, often with mudrock slabs on them, and also marked in some cases by head and footstones, also of local mudrock. Grave goods such as glass and ceramic fragments, as well as marine shell, were found on some of the graves, but no other archaeological remains were seen. It is probable that the graves are those of workers associated with a nearby farm (Halkett 2013).

The only other archaeological impact studies done in the Uniondale area appear to be those by Nilssen (2006) and Tusenius (2013). Nilssen (2006) recorded four isolated stone artefacts - a large retouched quartzite flake, an Early Stone Age (ESA) core, an ESA/Middle Stone Age (MSA) core and a MSA or Later Stone Age (LSA) radial core – during his survey of an area some 7 km to the southeast of Uniondale. A similar low density of material - five quartzite artefacts of indeterminate age - was noted by Tusenius (2013) at a borrow pit site some 18 km to the southwest of the town.

5.2 Borrow pit MR0401/11.7/0.25R (Vidamemoria pit no. 304)

Approximate area: 22 000m²

Location: S 33° 38' 54.14" E 23° 8' 17.76"

Farm name and number: Erf 521 Uniondale

Environment: The proposed pit extension is located in a fairly flat-lying, highly disturbed area at the north-eastern edge of Uniondale (Figures 1 and 2). The relative positions of the original and revised proposed extensions, as well as the location of the cemetery identified by Halkett (2013), are given in Figure 2. It can be seen that the revised polygon (in green) overlaps with the original one (in red) and both proposed extensions overlap with the cemetery (in yellow, Figures 3, 5, 9 and 10). A small existing borrow pit is located in the northwest corner of both polygons. Buildings and structures associated with the Eden District Municipality Roads Department and private homes lie on the western side of the polygon. A damaged stone-walled kraal and simple dwelling are situated to the southwest and southeast of it respectively (Figures 2, 4, 6 and 11). Man-made soil berms occur along the eastern and western margins of the polygon (Figures 6 and 8). Signs of dumping and digging are evident throughout the affected area. The southern part also contains the remains of a former concrete manufacturing plant (Figures 2 and 8). At present access to the site is via the southern track, but the proposed future access route will be an extension of the existing servitude past the Roads Dept. buildings (Figure 2). Colluvial mudrock gravel with dispersed quartz and quartzite clasts overlies Bokkeveld rocks. Scattered renosterbos (*Elytropappus rhinocerotis*) bushes occur in areas which have not been cleared.



Figure 2: Google earth image showing the revised proposed extension to borrow pit 304 (in green) and the tracks of the field survey (in blue). The original polygon surveyed by Halkett (2013) is indicated in red and the farm cemetery in yellow. The yellow pin marks the position of the existing pit. The location of other structures and points of reference mentioned in the text are also marked.



Figure 3: View towards the southwest of the polygon with the single formal gravestone and the cemetery, indicated by the dashed white line, in the foreground.

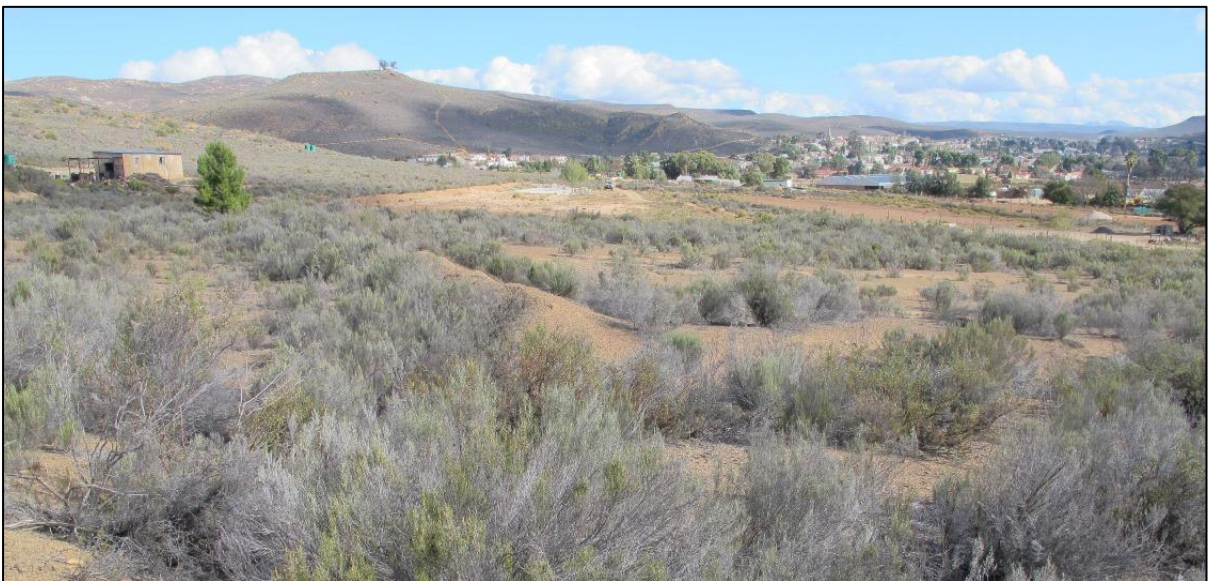


Figure 4: View towards the southwest of the eastern half of the affected area with the dwelling, pine tree and a couple of the soil berms evident on the left and the former concrete manufacturing plant visible in the middle ground.



Figure 5: View towards the east from the graveyard. The pine tree is evident on the right of the image. Figure 6: View towards the southwest showing one of the soil berms.



Figure 7: View towards the northeast along the disturbed western margin of the polygon. Figure 8: View towards the northeast with part of the former concrete manufacturing plant visible in the foreground.

Results of the survey:

The old farm graveyard recorded by Halkett (2013) was re-located in the north-western part of the affected area. As the graves and possible graves were fully recorded by Halkett, who also inspected the original polygon, the present survey concentrated on covering the remainder of the revised proposed extension. No further graves were noted, nor were any Stone Age or historical archaeological remains observed within the affected area, although the stone-walled kraal situated outside the polygon is of obvious historical interest. Several quartzite chunks appeared to be naturally damaged rather than intentionally flaked.



Figure 9: Detail of the single formal gravestone. Figure 10: Headstone marking one of the informal graves. The ruler is about 15cm in length.



Figure 11: View towards the southwest of the damaged stone-walled kraal just outside the polygon.

6. SIGNIFICANCE AND RECOMMENDATIONS

With the exception of the cemetery, most of the affected area is of low archaeological heritage significance. The cemetery is however of high local significance and should be conserved and protected during mining activities.

It is recommended that:

- The graveyard must be fenced and a buffer zone established. Halkett (2013) suggests that the width of the buffer be determined by the engineers taking into account the depth of the proposed mining;

- The location of the cemetery must be taken into account when the route of the future access track to the northwest of the polygon is finally laid out;
- If any human remains are found during the development of the proposed extension, work in that area must cease, the remains must be protected in situ and Heritage Western Cape (HWC) must be notified. A permit for the exhumation and reburial of any such remains will have to be issued by the South African Heritage Resources Agency (SAHRA). All such work will be to the cost of the developer.

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No significant additional impact on the cemetery and kraal are expected during the proposed extension of the pit if the above recommendations are adhered to.

No further archaeological studies or mitigation are recommended.

7. REFERENCES

Aurecon. 2014. Strategic Gravel Pit Summary Report Addendum. Borrow Pit MR401/11.7.0.25R extension.

Halkett, D. 2013. An assessment of graves at the site of the proposed extension of borrow pit MR401/11.7/0.03R on Erf 532, Uniondale. Unpublished report prepared for Vidamemoria Heritage Consultants. ACO Associates cc.

Nilssen, P.J. 2006. Proposed upgrading of road sections and relocation of an intersection in the Uniondale area: Archaeological Heritage Impact Assessment. Unpublished report prepared for CCA Environmental (Pty) Ltd. MAPCRM CC.

Tusenius, M.L. 2013. Archaeological Impact Assessment of the proposed extension of a borrow pit on Môreson (Kykoe 55) near Uniondale, Eden District, Western Cape. Unpublished report prepared for Vidamemoria Heritage Consultants. Natura Viva cc.

8. ACKNOWLEDGEMENTS

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