

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT
PROPOSED SAND MINE ON A PORTION OF THE FARM
SUIWERVLEI
VELDRIFF**

Prepared for

NALEDI DEVELOPMENT RESTRUCTURED (PTY) LTD

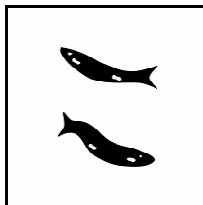
Att: Ms Lizinda Grobbelaar

Lizinda@naledidev.co.za

On behalf of:

TIPTRANS RESOURCES (PTY) LTD

By



Jonathan Kaplan

Agency for Cultural Resource Management

P.O. Box 159

Riebeek West

7306

Ph/Fax: 022 461 2755

Cellular: 082 321 0172

E-mail: acrm@wcaccess.co.za

**JANUARY
2009**

Executive summary

An Archaeological Impact Assessment of proposed sand mining on the Farm Suiwervlei near Veldruff has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, mining operations.

The proposed site is situated alongside the Transnet Iron Ore Railway Line and is about 5 kms east of the town of Veldruff. The proposed sand mining application area is about 29 ha in extent. It is estimated that more than 95% of the site has already been transformed as a result of many years of agricultural activity.

The following findings were made:

- A few dispersed, Later Stone Age tools were documented during the study.

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

The following recommendations are made:

- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

The above measures must be included in the Environmental Management Plan (EMP) for the proposed project.

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1. INTRODUCTION

1.1 Background and brief

Naledi Development Restructured (Pty) Ltd on behalf of Tiptrans Resources (Pty) Ltd requested that the Agency for Cultural Resource Management conduct a baseline Archaeological Impact Assessment for a proposed sand mining operation on a Portion of the Farm Suiwervlei, situated near Veldruff, on the Cape West Coast.

Proposed mining operations will entail the removal of sand at an average depth of $\pm 2\text{m}$. Available top soil will be removed prior to mining and will be stored until it can be replaced after mining. All mined areas will be rehabilitated after sand mining operations and will revert back to agricultural land. Mining will not penetrate or intersect any limestone or associated (fossil-bearing) sediments.

The extent of the proposed development (29 ha) falls within the requirements for an archaeological impact assessment as required by Section 38 of the South African Heritage Resources Act (No. 25 of 1999).

The aim of the study is to locate and map archaeological heritage sites/remains that may be negatively impacted by the planning, construction and implementation of the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate against the impacts.

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 site;
- to identify and map any sites of archaeological significance within the proposed site;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed site;
- 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 site

3. THE STUDY SITE

A locality map is illustrated in Figure 1.

An aerial photograph of the proposed site is illustrated in Figure 2.

The proposed site (S 32° 46 42.6 E 18° 14 08.7 on map datum wgs 84) is located directly alongside (i.e. west of) the Transnet Iron Ore Railway Line in Veldriff. Access to the site is via the railway line road. The site is mostly level and comprises agricultural lands that have been ploughed (for wheat and pastures) over many years (Figures 4-10). Plough lines, several drainage lines, vehicle tracks and footpaths intersect the site. There is virtually no natural vegetation (except for some scrub and large patches of Kweek grass) occurring on the proposed site, which is characterised by unconsolidated aeolian (wind blown) sands. Dune mole rat and burrowing is extensive over the site, as is trampling and grazing. There are no significant landscape features on the site. Apart from a concrete water trough situated alongside the fence on the eastern boundary, there are no buildings or other structures or features on the site. The surrounding land use comprises agricultural lands.

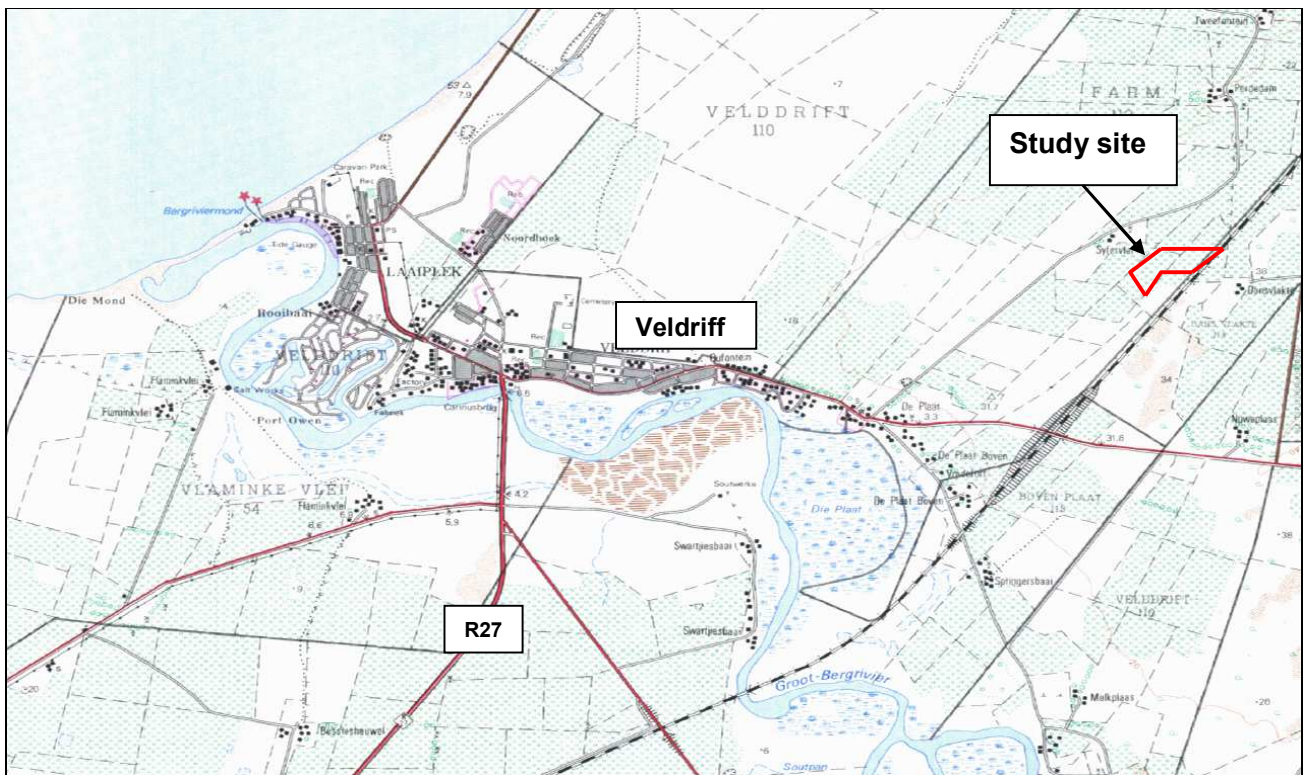


Figure 1. Site locality (3218 CA & CC Veldriff)



Figure 2. Aerial photograph of the study site



Figure 3. View of the site facing north



Figure 4. View of the site facing north east



Figure 5. View of the site facing east



Figure 8. View of the site facing south



Figure 6. View of the site facing north east



Figure 9. View of the site facing south



Figure 7. View of the site facing north east



Figure 10. View of the site facing west

4. STUDY APPROACH

4.1 Method

The approach followed in the archaeological study entailed a foot survey of the proposed site (refer to Figure 2).

The site visit and assessment took place on the 27th January, 2009.

A desktop study was also undertaken.

4.2 Constraints and limitations

There were no constraints or limitations associated with the study.

4.3 Identification of potential risks

It is unlikely, given the fairly extremely disturbed nature of the receiving environment, but unmarked human burials may be uncovered or exposed during sand mining operations.

4.4. Results of the desk top study

The archaeological significance of the Cape West Coast has been highlighted and is well-known (Kaplan 1990, 1993, 2003), but the inland region around Veldriff has not been investigated. Unfortunately, extensive agriculture activity over many years has destroyed much of the archaeological evidence in this area.

On the coast, ancient tidal fishtraps (*visvywers*) occur at Swartpunt, south of the mouth of the Berg River (Hart & Halkett 1992) and several Later Stone Age (LSA) shell middens (ancient rubbish dumps) have been recorded on a fossil shell bar on the eastern shores of St Helena Bay, between Laaipek and Dwarskersbos (Hart & Miller 1994). LSA stone and shellfish scatters have also been recorded on the farm Flamink Vlei south of the Berg River (Halkett 2007).

Along the alignment of the now tarred West Coast road, between the mouth of the Berg River and Rocher Pan, for example, there are a number of deflated hollows in the veld, which contain small numbers of stone artefacts, a few potsherds and occasional pieces of ostrich eggshell (Parkington & Manhire 1988; Kaplan 1997, 1998). Rudner (1968) also describes LSA shell middens at Duinefontein and among the sand dunes at Die Vlei further up the coast. Many more small deflated sites with pottery and stone tools occur between Draaihoek and Elands Bay (Kaplan Jerardino 2003).

Inland of the coastal shoreline, the region is characterised by an expanse of red sands, bush and scrub known as the Sandveld. Agricultural activity (mainly wheat and potatoes), dominates the rural landscape. From the records of early Dutch travelers, it seems clear that much hunter-gatherer settlement was ephemeral and in the open veld. Most explorers mentioned the large numbers of abandoned windbreaks, which seem to have been occupied for very short periods of time (Parkington 1976). If these were the most 'typical' sites then their remains would not be visible in the modern Sandveld landscape of today.

In the last few years (in response to mainly proposed housing developments in the area), surveys in the inland region around Veldriff have documented several open-air sites, significantly adding to the regional data base. Scatters of LSA tools, colonial-era ceramics, ostrich eggshell and pottery have been found on the Farms De Plaat, Vredefort, Melkplaas and Springerbaai (Kaplan 2005a, b; 2006a,b), all within a 3 km radius of the town. Despite the disturbed nature of the receiving environment, sites, or the remnants of sites, are clearly still visible.

5. LEGISLATIVE REQUIREMENTS

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 HHR 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

Several LSA quartz flakes and chunks, one silcrete flake, one quartzite flake and one large chunk of schist were found during the baseline study. No formal tools were found, however. The finds are not localized and were spread very thinly and unevenly over the surrounding landscape, occurring in a very disturbed context.

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

It is worth noting that a few quartz flakes, chunks and chips were also found in a strip of cleared and ploughed land immediately to the south of the subject property, while several stone flakes were also found on a property, alongside the Transnet line, about 1 km south of the proposed mine site (Kaplan 2005b).

7. IMPACT STATEMENT

The Archaeological Impact Assessment of a proposed sand mining operation on the Farm Suiwervlei near Veldriff has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed, mining operations.

According to the soil report (Lanz 2008) proposed mining operations will not penetrate or intersect any limestone or associated sediments. The probability of locating any fossil archaeological and palaeontological remains is therefore, likely to be **low**.

8. RECOMMENDATIONS

With regard to proposed sand mining operations on the farm Suiwervlei near Veldriff, the following recommendations are made:

- Should any unmarked human remains be disturbed, exposed or uncovered during sand mining operations, these should immediately be reported to the archaeologist or the South African Heritage Resources Agency (Dr A. Jerardino 021 462 4502).

These measures must be included in the Environmental Management Plan (EMP) for the proposed project.

10. REFERENCES

Halkett, D. 2007. Baseline Heritage Assessment of proposed development on the Farm known as Flamink Vlei Veldriff. Report prepared for Piet Badenhorst Professional Services. Archaeology Contracts Office, Department of Archaeology, University of Cape Town

Hart, T., & Halkett, D. 1992. A first phase archaeological survey of Wilde Varkens Vallei 48. Report prepared for Willem Bührmann Associates Town Planners and Valuers. Archaeology Contracts Office, Department of Archaeology, University of Cape Town.

Hart, T., & Miller, D. 1994. Phase 1 archaeological and palaeontological survey of the proposed mining area on Farm Veldriff 110, Veldriff Western Cape Province. Report prepared for Lime Sales Limited. Archaeology Contracts Office, Department of Archaeology, University of Cape Town.

Jerardino, A. 2003. Precolonial settlement and subsistence along sandy beaches of Elands Bay, West Coast, South Africa. *South African Archaeological Bulletin* 58:53-62.

Kaplan, J. 2206a. Phase 1 Archaeological Impact Assessment proposed development Portion 4 of the Farm Melkplaas No. 110 Piketberg. Report prepared for CK Rumboll and Partners. Agency for Cultural Resource Management.

Kaplan, J. 2006b in prep. Archaeological Assessment Portion of the Farm Springerbaai. Report prepared for Ms Anelia Coetzee. Agency for Cultural Resource Management.

Kaplan, J. 2005a. Phase 1 Archaeological Impact Assessment proposed development Portion 2 of the Farm 113 (De Plaat Annex) Veldriff. Report prepared for Robin Ellis Town and Coastal Planner. Agency for Cultural Resource Management.

Kaplan, J. 2005b. Phase 1 Archaeological Impact Assessment proposed development Portion 17 of the Farm 113 (Vredefort) Veldriff. Report prepared for Robin Ellis Town and Coastal Planner. Agency for Cultural Resource Management.

Kaplan, J. 2003. Preparation of a spatial development plan for the coastal zone: Berg River Mouth to Elands Bay Archaeological and historical input. Report prepared for Settlement Planning Services. Agency for Cultural Resource Management.

Kaplan, J. 1990. An appraisal of the archaeological significance of the west coast region. Report prepared for Dennis Moss Partnership. Archaeology Contracts Office, Department of Archaeology, University of Cape Town.

Kaplan, J. 1993. The state of archaeological information in the coastal zone from the Orange River to Ponto do Ouro. Report prepared for the Department of Environmental Affairs and Tourism. Agency for Cultural Resource Management.

Kaplan, J. 1997. Archaeological study, Die Duine. Report prepared for Dennis Moss Partnership. Agency for Cultural Resource Management.

Kaplan, J. 1998. Archaeological study, portion 27 of farm Modderfontein E, Cape west coast. Report prepared for EnviroAfrica. Agency or Cultural Resource Management.

Lanz, J. 2008. Assessment of the suitability of sand mining on Suiwervlei in the Veldriff area. Report prepared for Tiptrans Resources (Pty) Ltd.

Parkington, J.E. 1976. Coastal settlement between the mouths of the Berg and Olifants rivers, Cape Province. *South African Archaeological Bulletin* 31:127-140.

Parkington, J.E., & Manhire, A. 1988. Report on a reconnaissance along the proposed alignment of the West Coast Highway. Report prepared for Scott & De Waal. Spatial Archaeology Research Unit, Department of Archaeology, University of Cape Town.

Rudner, J. 1968. Strandloper pottery from South and South West Africa. *Annals of the South African Museum* 49:441-663.