

**ARCHAEOLOGICAL IMPACT ASSESSMENT: PROPOSED  
PROSPECTING ON THE FARM JENKINS 562 (EAST),  
POSTMASBURG, NORTHERN CAPE.**

(Assessment conducted under Section 38 (8) of the  
National Heritage Resources Act No 25 of 1999)

Prepared for  
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August 2010



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## EXECUTIVE SUMMARY

The Archaeology Contracts Office at the University of Cape Town was appointed by Coza Mining (Pty) Ltd to undertake an Archaeological Impact Assessment prior to a new prospecting application on the eastern corner of the farm Jenkins 562, located between Olifantshoek and Postmasburg in the Northern Cape Province.

There has been previous research in the Postmasburg area on the history of prehistoric specularite mining. Recent CRM work by Webley et al. (2010), Webley & Halkett (2010), Webley & Halkett (2008) confirm the distribution of Middle and Later Stone age artefacts in calcrete deposits around pans and springs.

A baseline archaeological survey was conducted by Lita Webley and David Halkett on 17 & 18 August 2010.

The survey identified two Later Stone Age flakes on a rocky ledge above a dry river bed.

There are no significance heritage resources which will be impacted by the drilling process.

However, we advise that prospecting work should cease if any of the following are uncovered:

- Human remains/graves
- Concentrations of stone tools or faunal remains
- Stone walling or any sub-surface structures
- Fossils

If any of the above is uncovered, SAHRA should be notified so that an archaeologist/palaeontologist can investigate further.

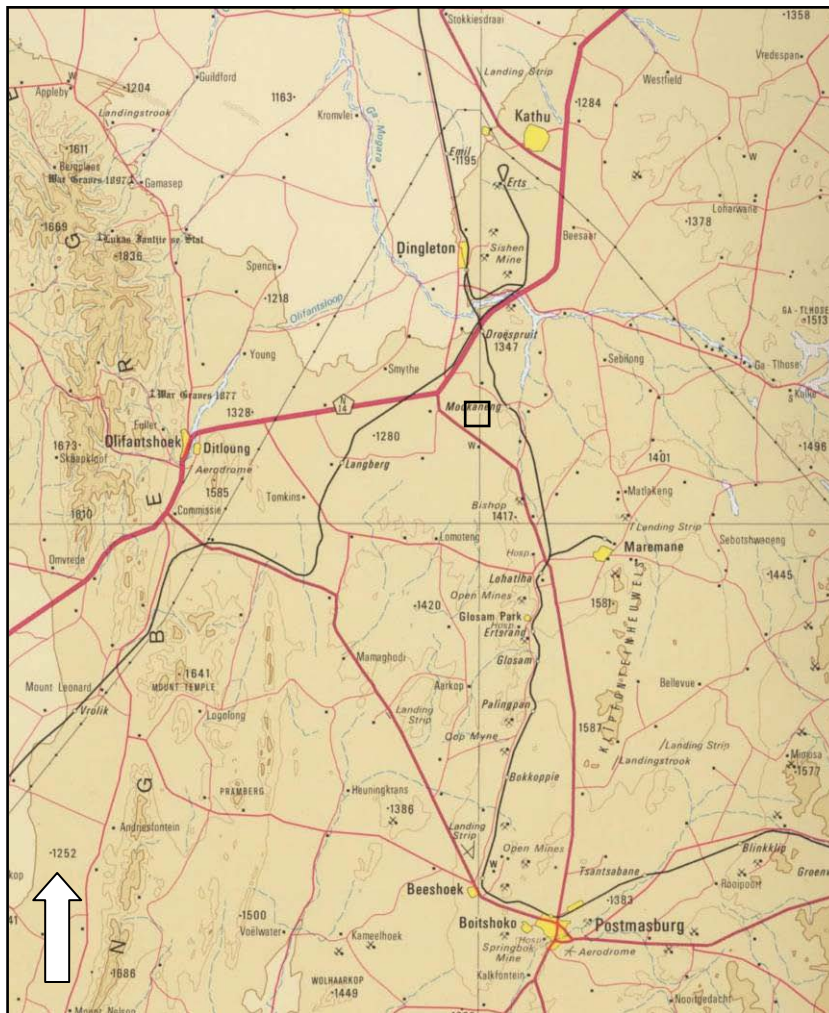
## **GLOSSARY**

ESA:	Early Stone Age – The archaeology of the Stone Age between 700 000 and 2500 000 years ago.
Khoekhoen:	Pastoralist groups, with cattle, sheep and pottery who settled in southern Africa around 2000 years ago.
Khoisan:	Collective term relating to both the Khoekhoen and the San.
LSA:	Later Stone Age – The archaeology of the last 20 000 years associated with fully modern people.
MSA:	Middle Stone Age - The archaeology of the Stone Age between 300 000 – 20 000 years ago associated with early modern humans.
NHRA:	National Heritage Resources Act, No 25 of 1999.
SAHRA:	South African Heritage Resources Agency
San:	Indigenous hunter-gatherer groups who lived in small bands spread across a wide area of southern Africa.

# 1. INTRODUCTION

The Archaeology Contracts Office at the University of Cape Town was appointed by Coza Mining (Pty) Ltd to undertake an Archaeological Impact Assessment prior to a new prospecting application on the eastern corner of the farm Jenkins 562 (east), located between Olifantshoek and Postmasburg in the Northern Cape Province (Figure 1).

The Department of Minerals and Energy in Kimberley advised that in terms of the legislation an Archaeological Impact Assessment would be required.

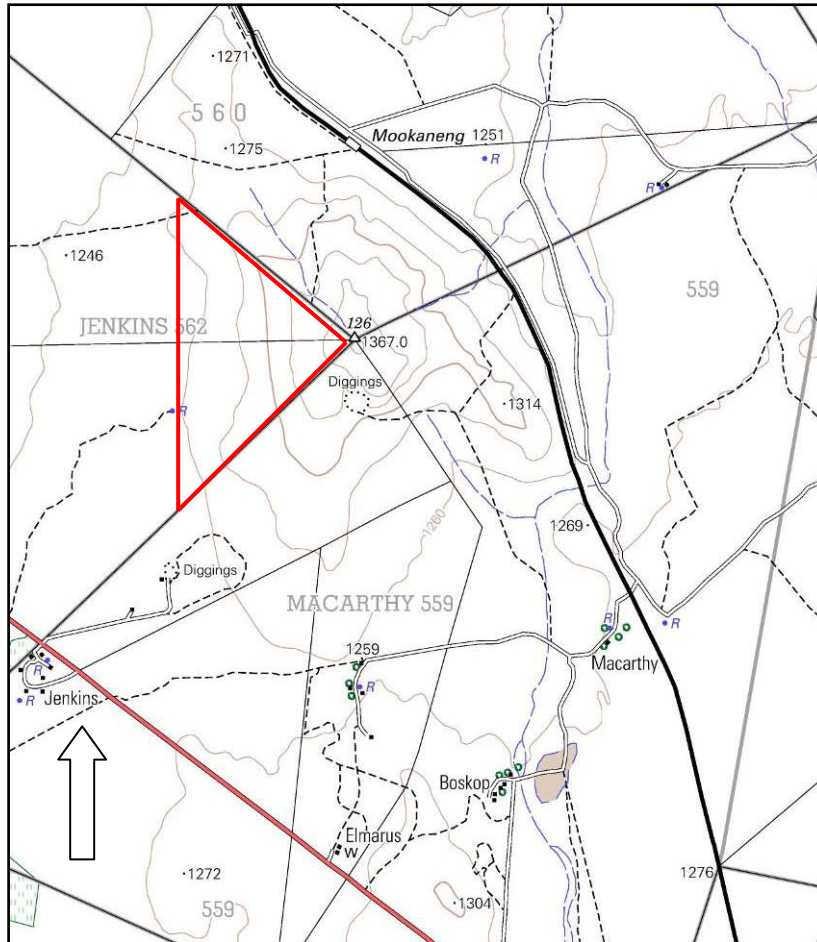


**Figure 1:** The approximate position of Jenkins 562, located on the R325, between Olifantshoek and Postmasburg.

# 2. BACKGROUND TO PROSPECTING

Coza Mining (Pty) Ltd intends to conduct a series of drilling programmes to prospect for iron ore and manganese on Driehoekspan 435, Doornpan 445, Jenkins 562 and Macarthy 559 between Postmasburg and Olifantshoek. *This*

report is concerned with prospecting on the eastern hills on the Remainder and Portion 1 of Jenkins 562 (Figure 2). Drilling will be conducted from truck mounted drilling rigs. Prospecting for iron and manganese ore will be done largely via core drilling of +/- 100mm diameter. Drill rigs will be wheel mounted and, thus, any vehicular traffic will produce "twin spoor" tracks.



**Figure 2:** The 1: 50 000 map of 2723CC Ga-Tlhoase – showing the position of the proposed drilling on the most eastern corner of Jenkins 562. The proposed mining on Macarthy 559, to the east, adjoins Jenkins at the top of the hill.

### 3. TERMS OF REFERENCE

The ACO undertook to undertake a baseline investigation including the following:

- Identification of archaeological sites through a desk top survey and site visit
- Rating of significance of archaeological sites (including the built environment where this was appropriate) on the properties
- Assessment of the impact of prospecting on the archaeology of the properties
- Recommendations for mitigation.

#### 4. LEGISLATION

The basis for all heritage impact assessment is the National Heritage Resources Act 25 (NHRA) of 1999, which in turn prescribes the manner in which heritage is assessed and managed. The National Heritage Resources Act 25 of 1999 has defined certain kinds of heritage as being worthy of protection, by either specific or general protection mechanisms. In South Africa the law is directed towards the protection of human made heritage, although places and objects of scientific importance are covered. The National Heritage Resources Act also protects intangible heritage such as traditional activities, oral histories and places where significant events happened. Generally protected heritage which must be considered in any heritage assessment includes:

- Cultural landscapes
- Buildings and structures (greater than 60 years of age)
- Archaeological sites (greater than 100 years of age)
- Palaeontological sites and specimens
- Shipwrecks and aircraft wrecks
- Graves and grave yards.

Section 38 of the NHRA requires that Heritage Impact Assessments (HIA's) are required for certain kinds of development such as rezoning of land greater than 10 000 sq m in extent or exceeding 3 or more sub-divisions, or for any activity that will alter the character or landscape of a site greater than 5000 sq m.

#### 5. RECEIVING ENVIRONMENT

The area of prospecting interest consists of the eastern hills on the Remainder and Portion1 of Jenkins 562. The areas to the west of the dry river bed are of no interest for prospecting. The proposed prospecting area consists of:

- undulating plains, covered in long yellow grass, to the west of the river;
- a dry river bed;
- a small rocky ledge running above the river bed;
- the main area of interest which comprises a kopje rising to 1367m. This kopje extends into Macarthy 559.

The semi-arid area around Postmasburg supports a scrub cover, largely vaalbos (*Tarchonanthus canphoratus*), interspersed with sparse, mainly thorn-bearing bush which includes swarthaak (*Acacia detinens*), kameeldoring (*Acacia giraffae*), soetdoring (*Acacia karroo*), witgatboom (*Boschia albitrunca*) and kareeboom (*Rhus lancea*).



**Plate 1:** View of the kopje from the Jenkins side of the hill. This is the focus of the prospecting.



**Plate 2:** View of the rocky ledge above the dry river bed.

## **5.1. Archaeological Background**

Beaumont and Boshier (1974) excavated a prehistoric pigment (specularite) mine four (4) kilometers to the west of Bleskop at Jonas Vlakte on Doornfontein 446. This area appears to be particularly rich in specularite breccia and these deposits were mined in pre-European times. The Doornfontein site represents a number of chambers which have been dug into a hillside. Archaeological excavations resulted in the discovery of large numbers of stone artefacts comprising mainly stone choppers and hammerstones which had been used to mine the specularite.

In addition, the archaeologists discovered pottery, decorated ostrich eggshell pieces, beads and bone implements as well as faunal (bone) remains which provide information on the diet of the pre-colonial miners (Beaumont & Boshier 1974: Figure 4). Radiocarbon dates place the mining activities to 1200 years ago or 800 AD. Fragmentary human remains from the Blinkklipkop mine which is 5km to the north-east of Postmasburg suggest that the early miners were of Khoisan physical type rather than representing Iron Age settlement.

Beaumont and Boshier (1974) also refer to some engraving sites at Paling which is located on Driehoekspan 435, as well as on Beeshoek to the west of Postmasburg. These roughly pecked engravings occur on shale outcrops.

Further to the north, Early Stone Age handaxes have been recorded at Kathu Pan. Beaumont has excavated numerous sites around the pan and he observed (Beaumont 1990) that a combination of geological conditions resulted in the preservation of a long record of human habitation in the Northern Cape.

Similarly, excavations at Bundu Pan near Marydale in the Northern Cape (Kiberd 2006) have also revealed a sequence including Early, Middle and Later Stone Age assemblages as well as preserved faunal remains. This suggests that the margins of pans need to be investigated for early human habitation. During the Webley et al. (2010) survey, a mix of Middle and Later Stone Age artefact scatters on fine-grained raw material were found around the margins of pans.

A number of open sites around Keimoes in the Northern Cape have been tested in recent years and they suggest two possible Later Stone Age sequences (Parsons 2008). However, the development of a chronological sequence is hampered by the lack of suitably stratified deposits. Morris & Beaumont (1991:119) have described a ceramic Later Stone Age for the site of Renosterkop, also near Keimoes.

According to Humphreys and Thackeray, Iron Age farmers only settled in the Northern Cape after A.D. 1600. The main area of Iron Age settlement and the only area, in which there is direct archaeological evidence for such settlement in the form of stone walling, are to the north-east of Kuruman. By the time the first European travellers arrived in this area they met only Iron Age Tswana-speaking people such as the Tlhaping. The Tswana settlement of Dithakong was located to the north-east of Kuruman in an area with many large springs. During the Webley et al. (2010) survey, a site on the farm Gaston (to the west of Macarthy) was discovered with pottery and stone tools. The remains could relate to the Koranna, a Khoekhoen group who were active along the Orange River in the 18<sup>th</sup> century, or conversely the Iron Age Tswana – although they are believed to have settled more to the north-east.



## **5.2 Historical Background**

The area known as Griqualand West was first 'roughly' surveyed by F. Orpen and W. Stow in 1872. During the Webley et al. (2010) survey of 20 farms to the west of Macarthy it was discovered that they were all surveyed and beacons between the years 1904 – 1911. This is very late when compared to the rest of the country. Many of the farm houses are built of calcrete blocks and a number of farmsteads have family graveyards.

## **6. METHODS**

The boundaries of the site were loaded onto handheld GPS receivers to facilitate the identification of the search area during field work. The site was visited on the 17<sup>th</sup> and 18<sup>th</sup> August 2010 by Lita Webley and David Halkett and inspected via a combination of driving and walking. Walk paths and site locations were recorded with GPS (Figure 3) and finds were photographed and described. We were accompanied by drilling contractor, Mr Danie Brand of Washa Drilling.

We examined the rocky ledge above the dry river bed and also climbed to the top of the Jenkins/Macarthy hill which is targeted for prospecting (Figure 3). There are no significant limitations – the area is well served with farm tracks.

### **6.1 Limitations**

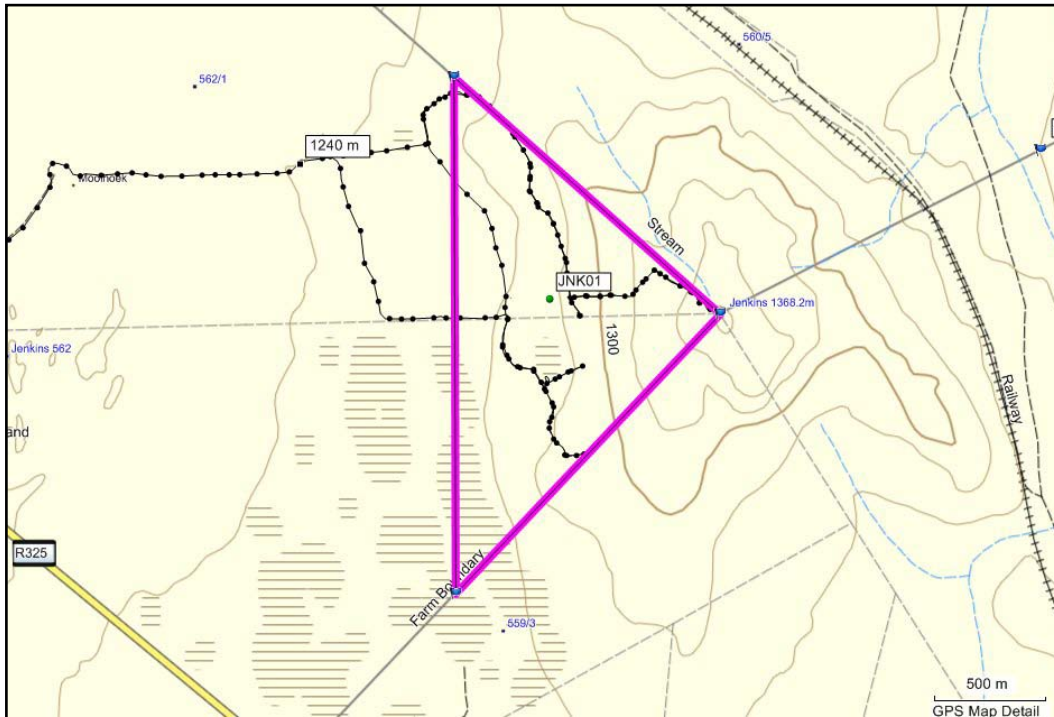
- We were unable to speak to the previous owner of the property. This means that it was not possible to collect any oral history relating to the occupation of the farm.

## **7. RESULTS OF FIELD SURVEY**

### **7.1 Pre-colonial Heritage**

Two Later Stone Age stone artefacts (on fine-grained material) were recovered on the edge of the rocky ledge. However, a close examination of the ledge failed to identify any other archaeological material.

No archaeological material was recovered on the kopje which is targeted for prospecting. The Jenkins farmstead is located on the opposite side of the R325 and there are no buildings or any structures on this portion of the farm.



**Figure 3:** Survey tracks on Jenkins with location of the two stone artefacts indicated as JNK01.

**Table 1:** List of sites discovered on Jenkins.

Site Number	Lat/Lon°	Description	Significance
JNK01	S27 55 15.06 E23 00 53.88	Two LSA stone flakes on a fine-grained raw material.	Low

## 8. SITE SIGNIFICANCE, IMPACT OF DEVELOPMENT AND MITIGATION

### 8.1 Loss of Pre-colonial Sites

The aridity of the area suggests that pre-colonial occupation would have been concentrated around sources of water, such as spring or pans. There a dry stream bed running north-south below the rocky ledge. The ledge was examined closely due to its proximity to water. Two LSA stone artefacts on fine grained raw material were found on the ledge. There were however, no significant densities of archaeological material as was expected.

**Significance:** Section 35 of the NHRA prohibits any person, without a permit, from destroying, damaging, excavating, altering, defacing or disturbing any archaeological sites and material, palaeontological sites and

meteorites. *Two LSA stone artefacts were found on Jenkins. They are of low significance.*

**Mitigation:** No mitigation is required.

## 8.2 Loss of Colonial Sites

No buildings or structures were found.

**Significance:** Section 34 of the NHRA stipulates that no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

**Mitigation:** No mitigation is required.

## 8.3 Loss of Graves

No graves were discovered on the kopje.

**Significance:** Section 36 (3) (b) of the NHRA clearly stipulates that no person may, without a permit issued by the relevant heritage authority or SAHRA destroy, damage or exhume any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

**Mitigation:** None.

## 9. RECOMMENDATIONS

Prospecting for iron and manganese ore will be done largely via core drilling. The prospecting will be concentrated on the kopje on the eastern edge of the farm, adjoining Macarthy 559. The survey identified two stone artefacts. They are not considered to be of any heritage significance and no mitigation is required.

However, we advise that prospecting work should cease if any of the following are uncovered:

- Human remains/graves
- Concentrations of stone tools or faunal remains
- Stone walling or any sub-surface structures
- Fossils

If any of the above is uncovered, SAHRA should be notified so that an archaeologist/palaeontologist can investigate further.

## **10. REFERENCES**

Beaumont, P. & Boshier, A. 1974. Report on Test Excavations in a Prehistoric pigment mine near Postmasburg, Northern Cape. South African Archaeological Bulletin 29:41-59.

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## **11. ACKNOWLEDGEMENTS**

I should like to thank the following individuals for their assistance in the field or with the arrangement of logistics: Mr Danie Brand (Washa Drilling) and Mr Nick Steyn, who is leasing Jenkins and Macarthy, for permission to access the property.