

ARCHAEOLOGICAL SURVEY AT HILLENDALE MINE

For: EXXARO (Pty) Ltd

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By Gavin Anderson & Louise Anderson

Umlando: Archaeological Tourism and Resource Management

PO Box 102532, Meerensee, 3901



INTRODUCTION

Umlando undertook its monthly survey at the Hillendale mine for Exxaro (Pty) Ltd, in late January 2008. The mine had progressed and two sensitive areas had been exposed. Both of these areas were initially recorded in 1995, and one was excavated in 2002.

RESULTS

Appendix A is a summary of the report of excavations at HIL16 (2831DD 050¹). The site currently consists of the same type of material excavated in 2002. No diagnostic sherds were observed. A few broken tuyère fragments and pieces of slag occur on the surface. As in 2002, there are no obvious furnaces present. We sampled a few pieces of slag and tuyère fragments.

HIL5 (2831DD 038) is located on a small hill overlooking the Mhlatuze floodplain. It was originally recorded in 1995. The site then consisted of several diagnostic sherds and several Middle Stone Age stone flakes. We observed similar material during the course of this visit.

No further mitigation is required for either site.

¹ This is the official National Site Number, and differs from the recorder's number

**APPENDIX A
2002 REPORT FOR HIL10**

INTRODUCTION

Ticor approached the ICRM to complete archaeological excavations at their Hillendale Mining Plant, in February 2002. This was the last of a series of sites regarded as having archaeological significance, and that would have been affected by mining activities (Anderson 1996). The excavations at 2831DD 50² (previously named Hill16) were undertaken in June 2002. The archaeological excavations are now complete and only the periodical site inspections/surveys remain³.

2831DD 44 is located on the northern parts of the hill overlooking the Mhlatuze River (Valley) and Lake Chuba. Esikhaweni is located approximately 5km toward the southeast.

The site dates mostly to the early second millennium AD (*c* AD 900 – 1100), although some artefacts pre-date and post-date this main period of occupation.

METHOD

We resurveyed the site locating areas of artefact concentrations, once the land had been cleared of sugar cane. These areas were demarcated as areas for potential excavations.

A total of 12 squares were excavated to an average depth of 50 cm below the surface. Each square was excavated in 10 cm spits where there was no visible stratigraphy. Alternatively, different lenses were removed as a whole where stratigraphy was visible. The basal sand tended to be a dark reddish-brown clay-like soil suggesting the beginning of the Berea Reds. Above this layer is a brown-red layer varying between 30 cm and 70 cm in depth. This is the archaeological deposit and occurs just below the topsoil that varies between 10 cm – 20 cm in depth.

² This is the sites official National Site Number

³ These occur once every 4 – 6 months when the vegetation has been removed for the next area mining.

Excavated squares were also placed over the site to locate some form of spatial patterning of the site. However, parts of the site have been previously damaged by housing developments to the east of the site.

ARTEFACTS AND FEATURES

Various artefacts were recovered suggesting that the site is a metal working area rather than a domestic area.

Pottery

The pottery from the site can be placed into three Phases of the Iron Age: two from the Early Iron Age (Ndongondwane and Ntshekane), and one from the Late Iron Age.

The Late Iron Age pottery is characterised by thin-walled sherds of which some have a “wart”, and/or a reddish-brown burnish.

Most of the Early Iron Age pottery was located near upper excavated squares, and two sherds are in direct association with the furnace. The Ntshekane sherds are the most frequently occurring sherds on the site. This suggests that the majority of the occupation belong to the Ntshekane Phase. The Ndongondwane sherds tend to occur on the upper slopes of the site (the southern end). Alternatively, the site is at the interface between the Ndongondwane and Ntshekane Periods.

Stone

The main types of stone recorded at the site are upper grinding stones and hammer stones. These artefacts are consistent with iron smelting sites.

Bone

Very few faunal remains were recovered. Those that were observed came from the upper horizons and are probably more recent in age.

Marine Shell

Some marine shell was recovered along the northeastern parts of the site. These were initially only observed on the surface, and the areas were excavated to expose shell middens. However, I did not observe any shell middens below the surface.

Metallurgy

The main type of metal working activity on this site was for iron production. There are several concentrations of slag on the slope of the hill, and the main excavations were located in these areas.

The metallurgical-related artefacts included slag, iron, and furnace fragments. No iron artefacts were recovered, however this is to be expected as the soil is too acidic to preserve iron artefacts.

Special Finds

Few special finds were recovered.

These include:

- A ceramic pipe
- A possible figurine fragment

Furnaces

Only one furnace area was recorded with two possible furnaces, in the Square 1A – C area. The area appeared approximately 25 cm below the surface in a

noticeable ashy-grey soil (named SPGS) and a Brown Sand in a Slag Pit (SPBS). This ashy-grey soil varied between 5 cm and 20 cm in depth, and is above the red clay-like soil. The furnace itself is very fragmented due to sugarcane farming and the acidity of the soil. The furnace is “visible”, however, through a large pit in an oval shape. The pit is ±45 cm deep, and was excavated into the red clay-like sand.

This pit is filled with SPGS, and a large quantity of pottery, fire-cracked rocks, furnace fragments, slag and iron ore are situated beneath it. Parts of the furnace wall are visible in the south section. These fragments indicate that the profile of the furnace was in an oval shape.

Approximately 50 cm to the east of this furnace is another small slag feature named SPBS. This feature consists of slag, tuyéres, some iron ore, hammer stone fragments, and pottery in an ashy-brown soil.

DISCUSSION

The site was excavated due to its potential for iron smelting features. The original report indicated that the site would date to the Late Iron Age. The site was considered significant as few late Iron Age furnaces have been excavated in this region.

The excavations revealed that at least two occupations occur at the site. The upper occupation dates to the Late Iron Age, and it is consistently in the upper 20 cm of the deposit throughout the site. The second (and older) occupation mostly dates to the Ntshekane Phase of the Early Iron Age (c. AD 850 – AD 1100). The latter occupation is directly associated with the furnaces. No in tact features were recorded due to the poor preservation of the furnaces. However, the furnace area appears to conform to the standard practice of two furnaces besides each other.

The excavation was stopped as it was unlikely to have yielded further information, or in tact features, regarding iron smelting for this period.

The archaeological excavations for the Ticor Mining at Hillendale is now complete and little further mitigation is required. The only mitigation still required is that of a regular monitoring program as the mining process continuous. This should occur approximately once every 4 – 5 months.