RESCUE EXCAVATION REPORT

SITE 37 ON PORTION 3 OF FARM OVERVLAKTE 125 MS AND VELE COAL MINE- EAST PIT EXTENSION IN MUSINA LOCAL MUNICIPALITY, VHEMBE DISTRICT,

LIMPOPO PROVINCE, SOUTH AFRICA.

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EXECUTIVE SUMMARY

The following report presents the findings of a Section 35 rescue excavation carried out at Site 37, located within Vele Colliery on Portion 3 of Farm Overvlakte 125MS, Musina District, Limpopo Province. The site has been subject to disturbance from the construction of a gravel road and is situated within the proposed extension of the East Pit mine by MCMining. Permit Case ID:20544 and Permit ID:3908, issued by SAHRA authorized rescue work on the site. The excavation was conducted over a two-week period and comprised of surveys to establish the surface distribution of material culture and identify potential features and areas for stratigraphic excavation. Excavation was subsequently carried out to maximize the recovery of archaeological data. The data obtained indicated that the deposit at the site was shallow and yielded limited cultural material. The analyses of the materials revealed that the site likely dates to the Zhizo period of the southern African Iron Age. Based on the results, it is recommended that Site 37 has a low potential for providing significant information and should be destroyed to facilitate the proposed mining activities of the West pit. However, this must be done under the watch of a professional archaeologist. In the event that chance finds are recovered during the mining activities, development process. All processes linked to the development should be halted, and the matter should be reported to SAHRA.

1. INTRODUCTION

This report report outlines the findings of a section 35 rescue excavation conducted at Site 37 (GPS coordinates S22°.09, 31.02 & E 29°.40.25.04) located within the Vele Colliery East Pit Mine on Portion 3 of the Overvlakte 125MS farm in Vhembe District, Limpopo Province. The mine is situated approximately 50 kilometers northwest of Musina Central Business District and 32 kilometers east of Mapungubwe Hill, which is about 10 kilometers from the eastern boundary of the Mapungubwe National Park and World Heritage Site. The significance of the area is underlined by the fact that the Mapungubwe National Park is a Grade 1 site. The East Pit is situated around 15 kilometers north of the primary regional tarred road (R572) that connects Musina CBD and the Mapungubwe National Park and World Heritage Site. Additionally, it is located about 2 kilometers south of the Limpopo Riverbank, which forms the northern border between South Africa and Zimbabwe.

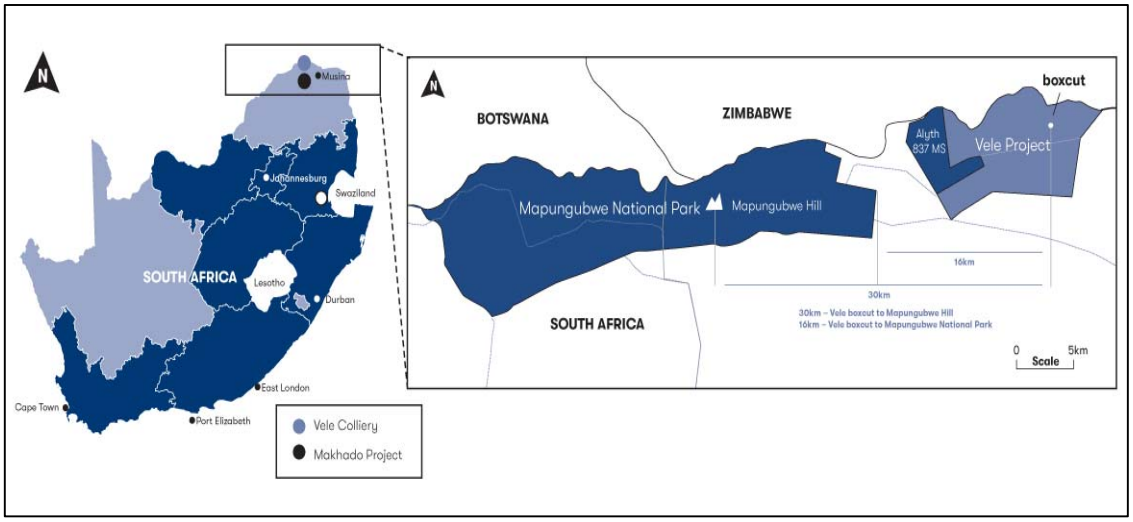

Figure 1: Locality map of Vele Colliery (Courtesy of MC Mining Ltd)

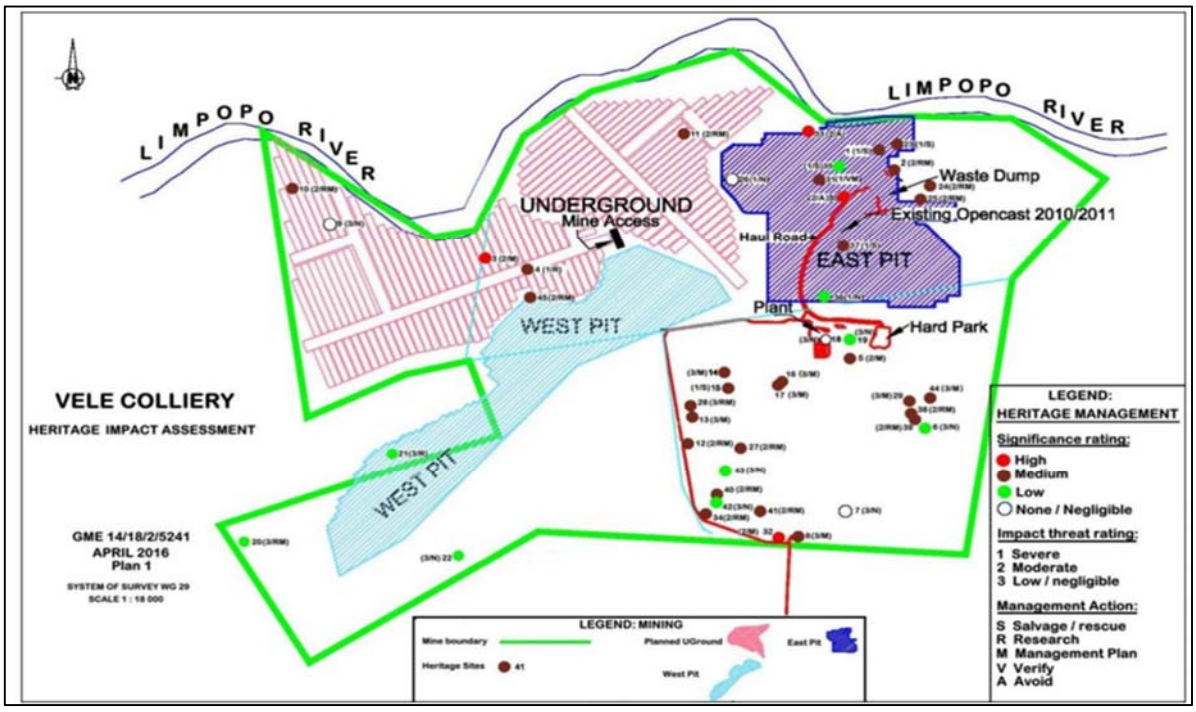

Figure 2: Site map showing the coal mining infrastructure and the location of Site 37 within the proposed mining footprint.

2. BACKGROUND TO THE ARCHAEOLOGY OF THE MAPUNGUBWE CULTURAL LANDSCAPE AREA

The location of Site 37 within the wider Mapungubwe Cultural Landscape highlights its significance as an area rich in diverse and significant heritage resources from different time periods (Deacon and Norton, 2003; Durand, 2009). The region is particularly noted for its rich paleontological heritage, which has contributed significantly to our understanding of biological evolution worldwide (Durand, 2009). The archaeological record of the area is also extensive, with multiple layers of human occupation spanning millions of years. The earliest layer belongs to the Early Stone Age (ESA) (2.6 million – 200 000 BP), followed by the Middle Stone Age (MSA) (300 000 – 20 000 BP) and the Later Stone Age (LSA) (20 000 -to the recent historical time (last 2000 years) (Sampson 1974; 1984; Sadr 2008; Barham & Mitchell, 2008; Chirikure & Mathoho, 2019). This is followed by the Early Iron Age farmers layer in the first millennium AD (Huffman, 2007), then the Middle Iron Age peoples associated with the state capitals at Schroda, K2 and Mapungubwe, and later, the Khami - Venda and Sotho-Tswana peoples who settled in the region post-AD1300. The last layers relate to colonial history and the early history of the twentieth century. The material signatures for all these cultural periods have been

identified in the Mapungubwe cultural landscape, collectively conveying its significance. Previous studies within Vele Colliery and the surrounding landscape have documented several heritage sites that date from the Stone Age to the recent past (Huffman 2007; Roodt 2009, 2022; Pikirayi et al 2012) (Figure 2). Given that Site 37 falls within the proposed development footprint, routine monitoring recommended its rescue excavation.

3. RELEVANT LEGISLATION

The National Heritage Resources Act of 1999 provides guidelines for mitigation of sites threatened with destruction. The following provisions of the act apply:

3.1. Historical remains

Section 34 (1) 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.

3.2. Archaeological remains

Section 35(3) Any person who discovers archaeological and paleontological materials and meteorites during development or agricultural activity must immediately report the find to the responsible heritage resource authority or the nearest local authority or museum.

Section 35(4) No person may, without a permit issued by the responsible heritage resources authority-

- destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- trade in, sell for private gain, export or attempt to export from republic any category of archaeological or paleontological material or object or any meteorite; or
- bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment which assist with the detection or recovery of metal or archaeological material or object or such equipment for the recovery of meteorites.

Section 35(5) When the responsible heritage resource authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or

paleontological site is underway, and where no application for a permit has been submitted and no heritage resource management procedures in terms of section 38 has been followed, it may

- serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order
- carry out an investigation for obtaining information on whether an archaeological or paleontological site exists and whether mitigation is necessary;
- if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph (a) to apply for a permit as required in subsection (4); and
- recover the cost of such investigation from the owner or occupier of the land on which it is believed an archaeological or paleontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.

Subsection 35(6) the responsible heritage resource authority may, after consultation with the owner of the land on which an archaeological or paleontological site or meteorite is situated; serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

3.3. Burial grounds and graves

Section 36 (3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority:

(i) destroy, damage, alter, exhume, 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; or

(ii) bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.

Subsection 36 (6) Subject to the provision of any person who during development or any other activity discover the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resource authority which must, in co-operation with the South African Police service and in accordance with regulation of the responsible heritage resource authority-

(I) carry out an investigation for obtaining information on whether such grave is protected in terms of this act or is of significance to any community; and

if such grave is protected or is of significance, assist any person who or community which is a direct descendant to decide for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

4. SITE DESCRIPTION

Site 37, located at GPS coordinates S22°.09, 31.02 & E 29°.40.25.04, is an Iron Age archaeological site situated on an undulating terrain approximately 600 meters from the Vele Coal Mine East Pit (as depicted in Figure 3). The site measures approximately 60 meters by 40 meters and is positioned on an elevated area that offers an extensive view of the Limpopo River. Most parts of the site have suffered from erosion, which has exposed various archaeological material remains such as fragmented undiagnostic potsherds, animal bones, and a single rusted iron artifact. Moreover, the construction of a gravel access road has divided the site into two sections.

Figure 3: A Google Earth view of Vele Coal Mine showing the location of Site 37

Figure 4: Some of the surface collections recorded at Site 37

Figure 5: Another open area where ceramics were noted on the surface of the site.

5. FIELDWORK

5.2.1. Survey and mapping

A comprehensive survey of Site 37 was carried out first at inter and intra site levels to map the site extent and spatial layout (Figures 6 and 7). A baseline was established across the site,

oriented from north to south, and a site grid was established to enable controlled surface collections and test pitting. Evidence of soil erosion was visible through the entire site. Nevertheless, all surface collections were collected for further analysis.

Figure 6 showing the controlled grid system and excavated test trenches.

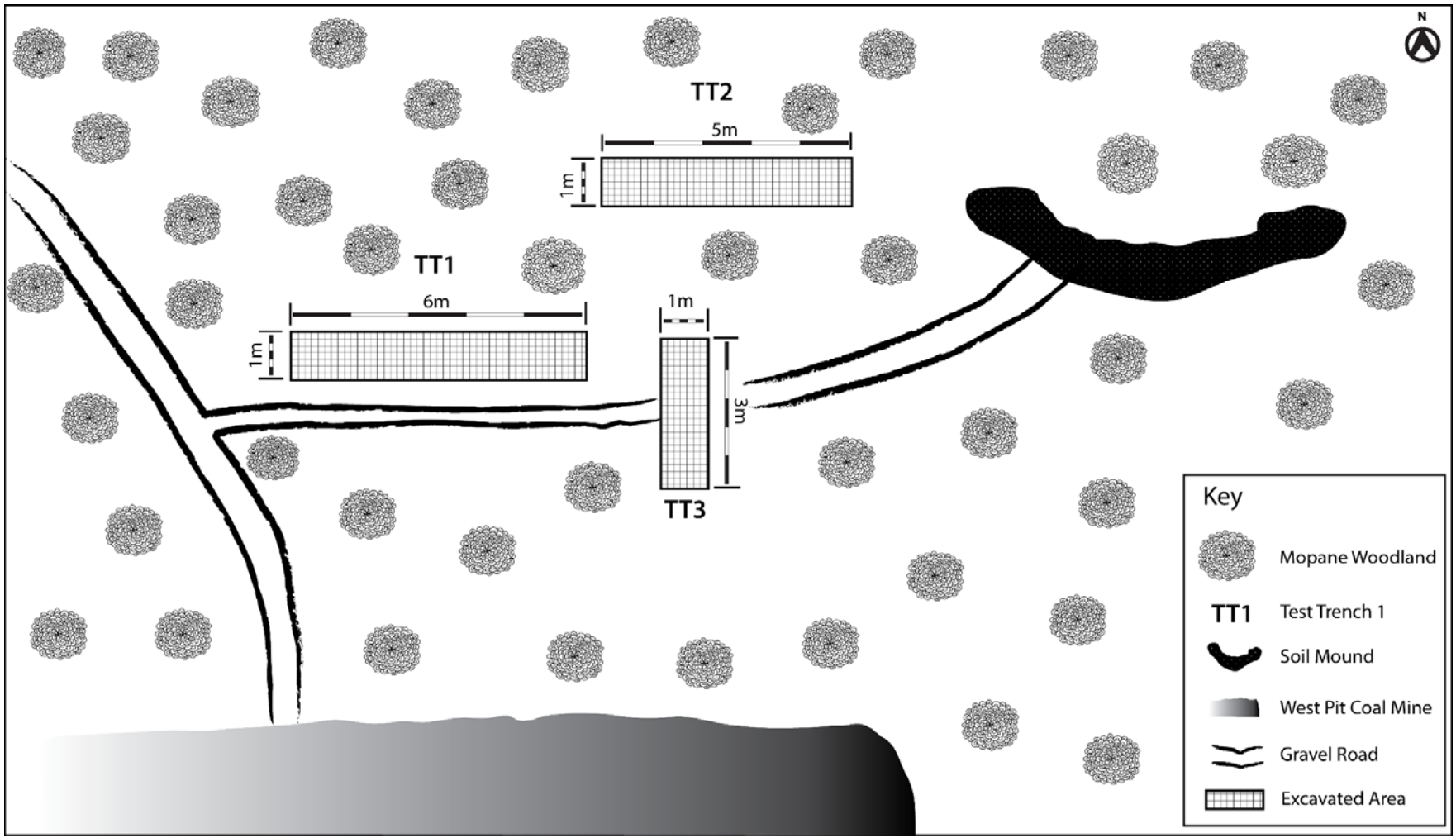

Figure 7 showing the site map of Site 37

5.2.2. Excavations

To recover datable and diagnostic archaeological materials, stratigraphic excavations were conducted on three selected areas using a Test Trench (TT) approach. The first Test Trench (TT1), which measured 6 x 1 meters, was excavated using a 10-cm spit approach and located along the gravel road leading to the soil mound. However, not much was recovered from the trench as it hit a sterile layer within the next 10 cm, aside from a few undiagnostic ceramics and spindle whorls discs. Similar results were obtained from the second (TT2) and third (TT3) trenches, which measured 5 x 1 meters and 3 x 1 meters, respectively (Figures 8, and 9). The trenches hit sterile layers within the next 10 cm, with only a few ceramics recovered. A homogenous soil layer dominated by hard compacted light brown soil with cultural material remains was noted, characterized by stone concentrations marking sterile layers. To enhance the recovery of micro artefacts, soils from all the trenches were sieved layer by layer using both 2 mm and 4 mm sieves.

Figure 8 showing Test Trench 1 (TT1)

Figure 9 showing Test Trench 2 (TT2)

5.2.3. Results

During the surface collections and excavations, a very limited quantity of diagnostic and undiagnostic ceramics were found and collected. Fragments of a spindle whorl were also recovered from the surface. The pottery was analyzed using established methods for pottery studies in southern Africa, as described by Huffman (2007). This method is based on three core concepts that a potter considers when making pots: vessel profile, vessel shape, and decoration motif and placement. This approach makes it possible to compare ceramics across sites and regions.

In the case of Site 37, ceramics were separated into diagnostic and non-diagnostic groups. A total of 301 undiagnostic sherds were found on the surface, along with 12 diagnostic sherds (mostly rims). During the excavation, 375 diagnostic sherds were found, along with 33 more diagnostic sherds (28 rims and 5 decorated with incisions). The pottery belongs to the Zhizo tradition. The distribution of the finds is as follows:

A. Surface collection – 301 undiagnostic, 12 diagnostic sherds (mostly rim sherds), 1 complete spindle and a fragment of a spindle.
B. TT1 Level 1 (6 x 1 metres) – 100 undiagnostic sherds, 14 diagnostics (12 rims and 2 decorated with incisions)
C. TT2 Level 1(5 x 1 metres) – 88 undiagnostic sherds, 1 diagnostic rim sherd
D. TT2 Level 2 – 13 undiagnostic sherds
E. AA16 Level 1 – 174 undiagnostic sherds, 6 diagnostic (3 rims and three decorated with incisions)

Figure 10 showing diagnostic sherds from all the excavation contexts.

6. Conclusion and recommendations

The excavations at Site 37 yielded undiagnostic archaeological materials with a few ceramics which indicated that the site belonged to the Zhizo period of southern Africa's Iron Age. The stratigraphy however, was not deep enough to warrant further studies or preservation.

Therefore, based on the outcome of the rescue excavations, we recommend that Site 37 can be destroyed subject to the condition that the whole process will be monitored by a professional archaeologist. In the event that chance finds are recovered during the development process. All processes linked to the development should be halted, and the matter should be reported to SAHRA.

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