



**DESTRUCTION OF IRON AGE SITE 37 AND MONITORING REPORT
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.**



Compiled by

Millennium Heritage Group (PTY) LTD

For: MC Mining & Exploration (PTY) LTD

South Block, Summercon Office Park

Conner Rockery Lane and Sunset Avenue

Lonehill

2191

ZAF

31 May 2023

Contents

Executive Summary	3
1.INTRODUCTION	4
2. BACKGROUND TO THE ARCHAEOLOGY OF THE MAPUNGUBWE CULTURAL LANDSCAPE AREA	5
3. RELEVANT LEGISLATION	6
3.1. Historical remains	6
3.2. Archaeological remains	6
3.3. Burial grounds and graves	7
4. SITE DESCRIPTION	7
5.1.2. Site destruction and monitoring processes	12
6. Conclusion and recommendations	15

Table of Figures

Figure 1: Locality map of Vele Colliery (Courtesy of MC Mining Ltd)	4
Figure 2: Plan drawing showing Coal mining infrastructure and the location of Site 37 within the proposed mining footprint.....	5
Figure 3: A Google Earth view of Vele Coal Mine showing the location of Site 37	8
Figure 4: Another open area where ceramics were noted on the surface of the site.	9
Figure 5: shows the different test trenches excavated.....	10
Figure 6: Dozer clearing the site.....	12
Figure 7: Collection of ceramics.....	13
Figure 8: View of the site after destructed.....	13
Figure 9: Some of the ceramics collected during site destruction process.....	14
Figure 10: Faunal remains uncovered from the site.....	14

Executive Summary

This report presents the results of site destruction and monitoring processes undertaken at the Vele Colliery mine positioned on Portion 3 of Farm Overvlakte 125MS, Musina District, Limpopo Province. The site was threatened by natural erosion, affected by a legacy gravel road, the site is sited on the footprint of the proposed East Pit mine extension. A permit was issued for mitigation by the South Africa Heritage Resource Agency (Permit Case ID:20544 and Permit ID:3908) which permit rescue investigation. The objective of the exercise was to produce high level evidence that allow us to comprehend Mapungubwe Cultural Landscape and its corridors. Destruction and monitoring programme was endorsed by the South African Heritage Resource Agency. The site was archaeologically examined before fully destroyed, the process was monitored and documented by professional archaeologist. Due to time constrain the procedure was carried out for three days. A D 9R CAT dozer was used to clear the vegetation, while 15- 20 CM homogenous top soil was removed. The process was supervised by four individuals, one walking in front the dozer while the other two walks alongside the dozer and the last person walking at the back collecting any visible cultural material remains uncovered during the process. The exercise was aimed at collecting uncovered cultural material remains while determining any uncovered or hidden archaeological features. Generally, a total of 320 undiagnostic 6 diagnostic ceramic pieces two pieces of spindle whorls and limited faunal remains were collected from this exercise. It was noted that the deposit at the site was neither deep nor prolific in terms of yielding cultural material.

1. INTRODUCTION

This report presents the results of site destruction and monitoring processes, the Site 37 (GPS S22°.09, 31.02 & E 29°40.25.04) is located on the footprint of the Vele Colliery East Pit Mine on Portion 3 of the farm Overvlakte 125MS in Vhembe District, Limpopo Province (Figure 1). The mine is approximately 50 kilometers northwest of Musina Central Business District (CBD), and 32 kilometers east of Mapungubwe Hill and about 10 kilometers from the eastern boundary of the Mapungubwe National Park and World Heritage Site. The Mapungubwe National Park is a Grade 1 site making resources on the wider landscape of high significance (Khumalo 2021). The East Pit is located roughly 15 kilometers north of the main arterial regional tarred road (R572) which connects Musina CBD and the Mapungubwe National Park and World Heritage Site. It is located 2 kilometers south of the Limpopo Riverbank which forms the northern border of South Africa and Zimbabwe to the north (Fig 2).

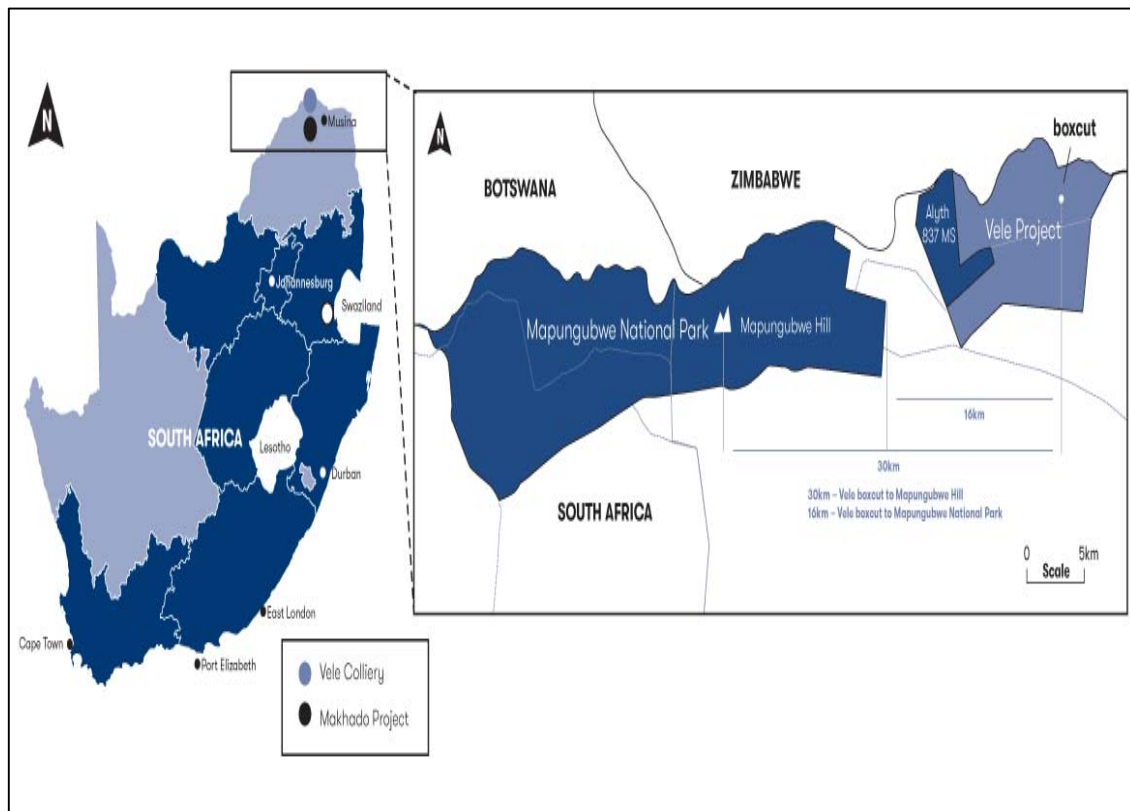


Figure 1: Locality map of Vele Colliery (Courtesy of MC Mining Ltd)

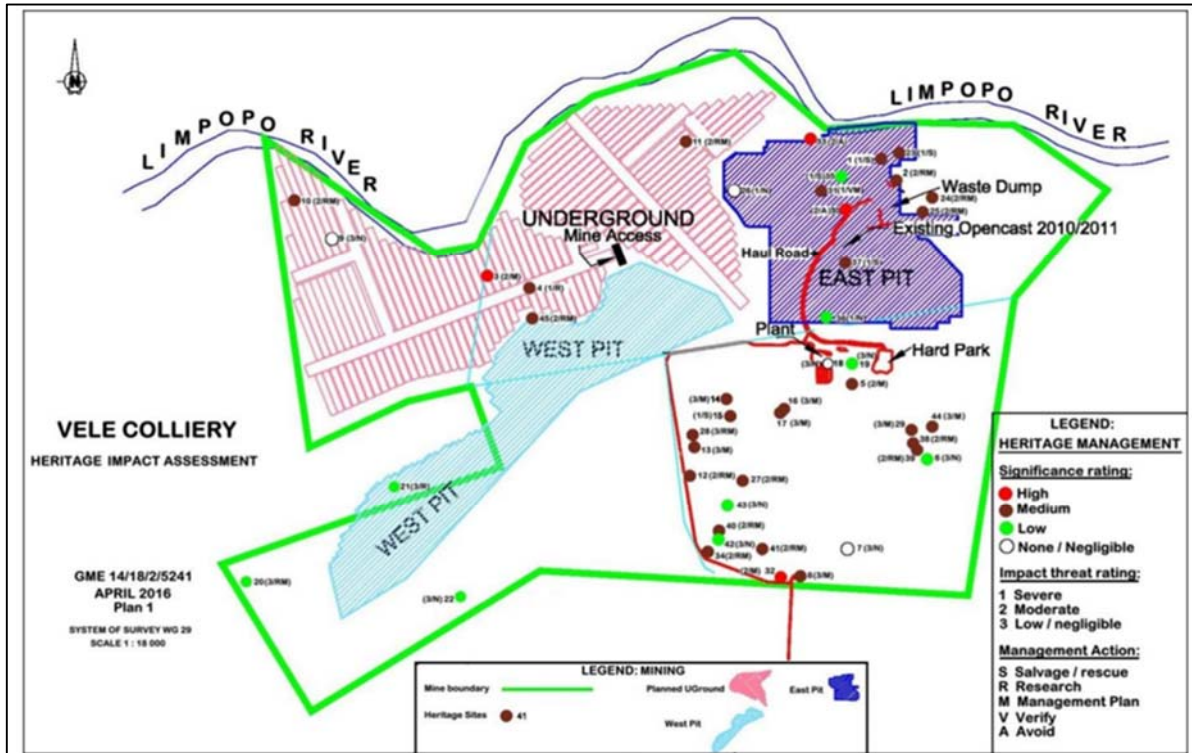


Figure 2: Plan drawing showing Coal mining infrastructure and the location of Site 37 within the proposed mining footprint.

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

Site 37 is located on the wider Mapungubwe Cultural Landscape famous for significant and diverse heritage resources of different time periods (Deacon and Norton, 2003; Durand, 2009). The region is richly endowed with paleontological heritage which has illuminated in varying ways biological evolution in the entire world (Durand, 2009). Archaeologically, the area consists of various layers of human occupation dating back millions of years. The earliest layer belongs to the Early Stone Age (ESA) (2.6 million – 200 000 BP) which is 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). Then, there is the layer corresponding to Early Iron Age farmers in the first millennium AD (Huffman, 2007). This layer is followed by Middle Iron Age peoples who are associated with the state capitals at Schroda, K2 and Mapungubwe. After these various groups came 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 and collectively convey its significance. Previous studies within Veles

Colliery and the surrounding landscape documented several heritage sites that date from the Stone Age to the recent past (Huffman 2007; Roodt 2009, 2022; Pikirayi et al 2012) (Fig 2). Routine monitoring recommended that Site 37 be rescue excavated as it is situated on the proposed development footprint.

3. RELEVANT LEGISLATION

The National Heritage Resources Act of 1999 provides 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 (GPS S22°.09, 31.02 & E 29°.40.25.04), is a possible Zhizo or Late Iron Age site situated on an undulating terrain roughly 600 meters from the Vele Coal Mine East Pit (Fig 3). The site is roughly 60

X 40 meters in size and is positioned on an area with good command view of the Limpopo River. Most sections of the site have been eroded thereby exposing archaeological material remains on the surface. These include broken pieces of undiagnostic potsherds, animal bones and one piece of rusted iron. The construction of a gravel access road seems to have dissected the site into two sections.

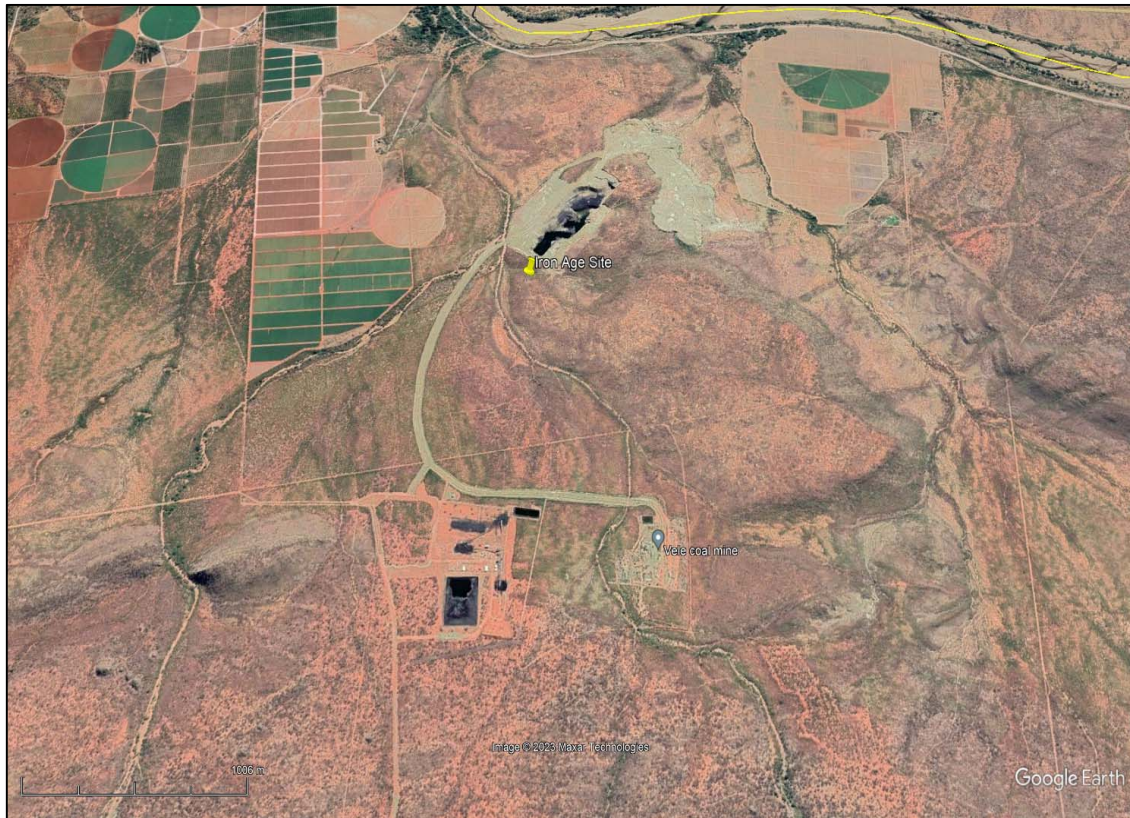


Figure 3: A Google Earth view of Vele Coal Mine showing the location of Site 37



Figure 4: Another open area where ceramics were noted on the surface of the site.

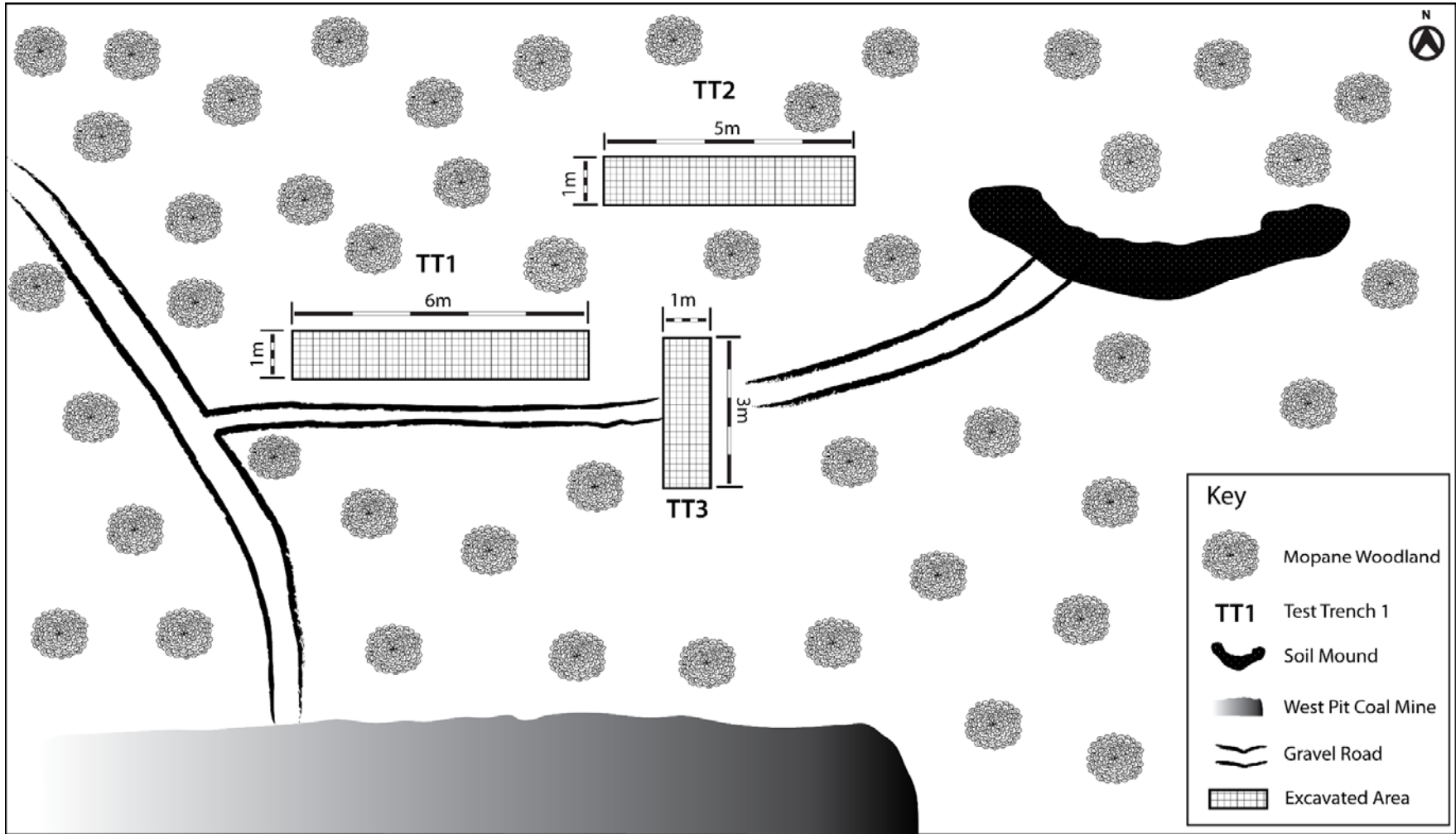
5.1. PREVIOUS FIELDWORK

An excavation programme was conducted on site and yielded minimal cultural materials remains. The entire exercise was aimed at recovery of datable archaeological material remains to understand sites culture historic sequence. Stratigraphic excavations were conducted on selected areas deemed to have strong excavation potential. Excavation take the form of trenches where by units of measurement are in metres. Test trench (TT) measuring 2X1 Meters were sunk along the grid to salvage and sample the cultural material following the natural stratigraphic layering of the deposit. Evidence of soil erosion was visible through the entire site. To understand the distribution of cultural materials in what is presumed to be Iron Age occupational zone, separate blocks, A1, A2 and A3 were excavated and later combined to form (TT1)- 6MX1M. In the absence of visible natural stratigraphy, a 10 cm spits approach was adopted to mark layers during the excavation. Homogenous soil layer with cultural material remains was noted until the depth of 10 CM where stone concentrations which marked sterile layer. Soils from excavation trenches were sieved layer by layer using a hand-operated double 2mm and 4mm sieves respectively to recover micro artefacts. Generally, the first layer was eroded, dominated by hard compaction characterised by light brown soil. This layer contained few cultural material remains which include diagnostic and undiagnostic ceramics. Test trench- 2- 5MX1M, the first layer was excavated to 10cm, very few undiagnostic ceramics were collected, this include the three pieces of

spindle whorls, no other cultural material remains were encountered, at the depth of 10cm, stone concentration was encountered. TT3- 3MX1M- this trench was created roughly 8 meters north of test trench 1, the block was excavated to the same depth showing homogenous soil, the layer yielded broken pieces of undiagnostic ceramics with thin ashy layer, at the depth of 10cm stone concentration was encountered.



Figure 5: shows the different test trenches excavated



5.1.2. Site destruction and monitoring processes

A comprehensive archaeological investigation was finalised, followed by site destruction and monitoring processes. Site 37 is a significant Iron Age due to its propinquity to the Mapungubwe Cultural Landscape. Due to time limits and the necessity to expand Vele coal mine West pit, it was suggested to use the Machinery to expedite the site destruction process. Coal Mining company made a dozer available to the team in a quest to speed up the process of the removal of vegetation and the top soils. Due to time constrains the process was carried out in three days. A D 9R CAT dozer was used to clear the vegetation, while 15 cm homogenous top soil was removed. Roughly 1,5 ha piece of land was cleared during the site destruction process. The entire process was monitored by two archaeologists and two labourers, subsequently one individual was walking in front the dozer while other two walks alongside the dozer and the last person walking at the backside. The exercise was conducted to determine any uncovered or hidden archaeological features and collections of uncovered materials remains. During the process the Dozer removed between 15-20cm top soil. A very minimal sample of diagnostic and undiagnostic ceramics we uncovered and collected. Some of the diagnostic ceramics collected includes fragments of a spindle whorls. Generally, a total of 320 undiagnostic 6 diagnostic ceramic pieces and few faunal remains were collected from this exercise. Due to the nature of archaeological deposit and absence of abundance of cultural materials remains. It was noted that the deposit at the site was neither deep nor prolific in terms of yielding cultural material.



Figure 6: Dozer clearing the site



Figure 7: Collection of ceramics



Figure 8: View of the site after destructed.



Figure 9: Some of the ceramics collected during site destruction process



Figure 10: Faunal remains uncovered from the site

6. Conclusion and recommendations

At the end of three consecutive days of dozer monitoring program, monitoring work was concluded, and the best possible results were achieved. The dozer exposed no structure nor feature, however the stratigraphy is however not deep while the information value is also not very high. This exercise concluded destruction and monitoring programme.