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PHASE 1 HERITAGE IMPACT ASSESSMENT (HIA) STUDY FOR THE PROPOSED PROSPECTING ACTIVITIES ON VARIOUS PORTIONS OF THE FARM MAPOCHSGRONDE 500 JS, REMAINDER OF FARM MAPOCHSGRONDE 859 JS, RE OF MAPOCHSGRONDE 865 JS, RE OF MAPOCHSGRONDE 868 JS, RE OF MAPOCHSGRONDE 869 JS, RE OF MAPOCHSGRONDE 872 JS, RE OF MAPOCHSGRONDE 873 JS, RE OF MAPOCHSGRONDE 874 JS & PORTION 1 & RE OF MAPOCHSGRONDE 910 JS WITHIN THE LOCAL MUNICIPALITY OF ELIAS MOTSOALEDI UNDER SEKHUKHUNE MAGESTRIAL DISTRICT, LIMPOPO PROVINCE.

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July 2021

Executive Summary

Item	Description
Propose Development and Location:	Barzani Mining (Pty) Ltd is applying for prospecting rights for Magnesite, Vanadium and Vermiculite on Portion 78, 80, 107, 437, 443, 444, 445, 446, 447, 448,449, 454, 455 and 456 of Mapochsgronde 500 JS, Remainder of Farm Mapochsgronde 859 JS, Re of Mapochsgronde 865 JS, Re of Mapochsgronde 868 JS, Re of Mapochsgronde 869 JS, Re of Mapochsgronde 872 JS, Re Mapochsgronde 910 JS situated in Sekhukhune Magisterial District, Limpopo Province.
Purpose of the Study	Prospecting
Map reference	1:250 000 Topographic Map
Coordinates	GPS S25°17'22.11" E29°56'24.57"
Local Authority	Elias Motsoaledi Local Municipality
District Municipality	Sekhukhune District Municipality
Developer	Barzani Mining (PTY) LTD
Predominant land use of surrounding area	Farming
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Heritage Consultant	Vhufa Hashu Heritage Consultants
Status of the Report	Phase 1 Heritage Impact Assessment
Date of field work	30-06-2021,12-06-2021,13-06-2021 and 14-06-2021
Date of report	July 2021

This Phase 1 Heritage Impact Assessment (HIA) Report was prepared to address requirements of Section 38 of the National Heritage Resources Act (Act 25 of 1999), South African Heritage Resources Agency (SAHRA), and the Limpopo Heritage Resources Authority (LIHRA). Vhufa Hashu Heritage Consultants cc was appointed by Barzani Mining (Pty) Ltd to conduct Phase 1 Heritage Impact Assessment study for the proposed prospecting rights application in the Sekhukhune District of Limpopo Province. The study was conducted as part of the specialist input for the Basic Assessment report. A stepped approach combining desktop survey, systematic field survey and mapping was employed to identity and record any natural or cultural landmarks on and around the development footprint. This enabled the total coverage of the proposed area as well as in-depth community consultation and engagement. Survey quadrants covering the area proposed

for prospecting were surveyed with a team of fieldworkers including a community member Mr Willium Buda who reside next to Highlands Country Lodge.

A total of 22 sites were recorded during the survey and the typology of these sites ranges from historical to contemporary built structures, as well as burial grounds. Burial grounds were predominant (11), and these comprised of 63 graves, followed by historical and contemporary built structures (07) which included farmhouses and laborer camps. The last category was the stone walls (03). Nevertheless, all of these sites are located on the footprint of the proposed area

The region was named after King Sekhukhune, a king of the Marota (commonly known as the Bapedi) in Sekhukhuneland during the 18th century. Sekhukhune is a cross-boarder municipality between Limpopo and Mpumalanga Province. It is a rural area with an economic base in mining and agriculture. The region is endowed with mineral resources like chrome, platinum and diamond deposits.

South Africa's historical, archaeological and paleontological heritage resources are unique and non-renewable as defined in section 3 of the NHRA. Heritage Resources as defined in section 3 of the NHRA are given "formal" protection in terms of section 27-29 and 31-32 of the NHRA and "general" protection in terms of sections 33,34,35,36 and 37 of the NHRA. Therefore, no damage, destruction or alteration may occur to heritage resources without a permit issued by a relevant heritage authority.

An assessment of impacts on heritage resources of a development was required in terms of section 38(1 and 8) of the NHRA. Where possible, heritage resources should be preserved *in situ* and conserved for future generations. This can be achieved through a monitoring and management plan that may be stipulated in the conditions issued on a development by an authority as per section 38(4)c of the NHRA. Where it is not possible to retain the heritage resources *in situ*, and the heritage resources are not deemed significant, the loss of information can be reduced by recording and mitigation of the heritage resources through a process of excavation (or sampling) as a condition on the development in terms of section 38(4) .d and e, after obtaining a permit from the relevant Heritage Resources Authority (HRA), at the cost of the developer. This allows us to record a part of the history of the place as part of the national inventory. Assessment and mitigation in the early phase of the development may save the developer considerable delays and related costs.

Proposed activities

The proposed development will entail Prospecting right application for Magnesite, Vanadium and Vermiculite. The archival data spans from the deep past to the recent past. These contain original deposits and materials that speak to humanity's interaction. Given that the Sekhukhune is archaeologically rich, there is a high possibility for more heritage resources within the area proposed for prospecting.

Acknowledgements

The authors acknowledge Barzani Mining, Basia Environmental and Social Facilitator Phumzile Mahlangu for their assistance with project information, and the associated project background information as well as responding to technical queries related to the project. I would also like to express my gratitude to few community members who gave us chance to interview them and share information about their area Mr J D Venter, Neill Cassells, Paul Cassells, Joseph Makuwa, Willium Buda, Elsie Buda, Elius Masango, S J Mahlangu, Paul Sithole, Hendrick Coetzer, Jonny Liebenberg and Ben Cloete.

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Archaeologist and Heritage Consultant

EXPLANATION OF ABBREVIATIONS USED IN THIS DOCUMENT

AIA	Archaeological Impact Assessment
ASAPA	South African Archaeological Professional Association
BA	Basic Assessment
CMP	Conservation Management Plan
EIA	Early Iron Age
EMP	Environmental Management Plan
ESA	Early Stone Age
GP	General Protection
GPS	Geographical Positioning System
HIA	Heritage Impact Assessment
HMP	Heritage Management Plan
ICOMOS	International Council of Monuments and sites
LIA	Late Iron Age
LSA	Late Stone Age
MIA	Middle Iron Age
MSA	Middle Stone Age
NASA	National Archives of South Africa
NEMA	National Environmental Management Act (No.107 of 1998)
NHRA	National Heritage Resources Agency
PRHA	Provincial Heritage Resources Authority
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
VHHC	Vhufa Hashu Heritage Consultants

DEFINITIONS

"**Aesthetic value**" Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

„**Alter**" any action affecting the structure, appearance or physical properties of a place or object, whether by a way of structural or other works, by painting plastering or other decoration or any other means;

"**Conservation**" in relation to heritage resources, includes protection maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance

"**Conservation Management Plan**" A policy aimed at the management of a heritage resource and that is approved by the Heritage Resources Authority setting out the manner in which the conservation of a site, place or object will be achieved

"**Cultural Significance**" As defined in the NHRA means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance

"**Development**" means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future wellbeing, including-

(a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
(b) carrying out any works on or over or under a place;
(c) subdivision or consolidation of land comprising a place, including the structures or airspace of a place;
(d) construction or putting up for display signs or hoardings;
(e) any change to the natural or existing condition or topography of land; and
(f) any removal or destruction of trees, or removal of vegetation or topsoil.

"**Heritage agreement**" means an agreement referred to in section 42,

"**Heritage Impact Assessment**" A report compiled in response to a proposed development that must meet the minimum requirements set out in the NHRA and should be submitted to a heritage resources authority for consideration.

"**Heritage site**" means a place declared to be a national heritage site by SAHRA or site declared to be a provincial Heritage site by a PHRA

"**Historic value**" Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

"**Improvement**" in relation to heritage resources includes repair, restoration and rehabilitation of a place protected in terms of this Act.

"**Interested and Affected Parties**" Individuals, organizations or communities that will either be affected and/or have an interest in a development or the resulting impacts of a development.

"**Management**" in relation to heritage resources includes the conservation, presentation and improvement of a place protected in terms of this Act.

"**Scientific value**" Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period.

"**Social value**" Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

"**Rarity**" Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

"**Representivity**" Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

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1. **INTRODUCTION**

Barzani Mining commissioned studies for the proposed Prospecting right application for Magnesite, Vanadium and Vermiculite on Portion 78, 80, 107, 437, 443, 444, 445, 446, 447, 448,449, 454, 455 and 456 of Mapochsgronde 500 JS, Remainder of Farm Mapochsgronde 859 JS, Re of Mapochsgronde 865 JS, Re of Mapochsgronde 868 JS, Re of Mapochsgronde 869 JS, Re of Mapochsgronde 872 JS, Re Mapochsgronde 873 JS, Re of Mapochsgronde 874 JS & Portion 1 & RE of Mapochsgronde 910 JS situated in Sekhukhune Magisterial District, Limpopo Province. Vhufahashu Heritage Consultants cc was appointed to conduct Phase 1 Heritage Impact Assessment of the cultural heritage (archaeological, and historical) of Sekhukhune as part of the Phase 1 Heritage Impact Assessment for a proposed prospecting right application for Magnesite, Vanadium and Vermiculite along road R555 in the Sekhukhune region of Limpopo Province.

Activities relating to the prospecting may impact on any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (NHRA - Act No. 25 of 1999) protects all structures and features older than 60 years (section 34), archaeological sites and material (section 35) graves and burial sites (section 36). In order to comply with the legislations, the Applicant required information on the heritage resources, and their significance that occur in the demarcated area. This enables the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources.

Heritage Impact Assessment (HIA) was the process to be followed in order to determine whether any heritage resources were located within the area to be affected by prospecting as well as the possible impact of the proposed project thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological and heritage resources. HIA must be done under the following circumstances:

- To establish whether any of the types and ranges of heritage resources as outlined in section 3 of the National Heritage Resources Act (No 25 of 1999) do occur in the Project area and, if so, to determine the nature, the extent and the significance of these remains.

- To determine whether such remains will be affected by the exploration and mining activities and, if so, to evaluate what appropriate mitigation measures could be taken to reduce the impact of these activities on such heritage resources.
- To propose management measure heritage resources that may be affected by the proposed exploration activities.

1.1. Background

The Sekhukhune District Municipality is located in the south-eastern part of Limpopo, which is South Africa's most Northern Province. The district shares boundaries with the Capricorn and Mopani Districts in the north, Mpumalanga in the south and east, and the Waterberg District in the west. The District was formed during the year 2000 and is one of the five District Municipalities in the Limpopo Province.

Largely rural in nature, the District is made-up of four local municipalities, namely; Elias Motsoaledi LM, Ephraim Mogale LM, Makhuduthamaga LM and Fetakgomo Tubatse LM. The main sectors of Sekhukhune District that contribute to the growth of economy in the district are agriculture, mining and community services. Mining is the biggest contributor in the economy of the district. Sekhukhune District Municipality (SDM) was established in December 2000. The district municipality is named after the king of Bapedi people, Kgosi Sekhukhune, it is an area with a long and proud history. He is famously known for recruiting young men to work for white farmers and the colonial diamond fields so as to secure funding to purchase arms from the Portuguese in Delegoa Bay so as to protect the land of the Marota which spanned between the Vaal and Limpopo Rivers. After Sekhukhune's death, Pretoria divided Sekhukhune land into small "tribal" units that owed allegiance not to one central' Marota Authority but to "Native Commissioners". This effectively destroyed the Marota Empire. Thereafter, the Bapedi people were forced to seek employment on white farms, in factories and mines as migrant labourers. The migrant labour system that the Bapedi used to build their empire was now skewed against them. In a curious sort of way this fulfilled Sekhukhune's prophecy of December 1879, that after him no other chief would be able to stand up to Pretoria since they would all be its tools. Paying tribute to him the London Times editorial on 30 August 1882, said: "...There is yet no sign of permanent peace among the native races of South Africa. We hear this morning from Durban of the death of one of the bravest of our former enemies, the Chief Sekhukhune. He with his son and fourteen followers, has been killed... The news carries us

some years back to the time when the name of Sekhukhune was a name of dread, first to the Dutch and then to the English Colonists of the Transvaal and Natal... It was, indeed to a great extent the danger caused by the neighborhood of this formidable chief that led to the annexation of the Transvaal by England. When war was declared against the Zulu king, operation went on simultaneously against Sekhukhune and early in 1879 his stronghold was attacked... Obstacles stood in the way of these operations, and when after Ulundi, Sir Garnet Wolseley entered the Transvaal, he endeavoured to humiliate the Chief. But Sekhukhune was safe, as he imagined, in an impregnable mountain fortress, and scornfully rejected the terms offered by the British General. It became necessary to attack him in force. A combined movement of columns, containing 2,000 English and 10,000 Swazis and other native troops was planned and carried out with great skill, and on the 28th November, 1879, the kraal was taken by assault. Still the Chief and a great number of his men held the "koppie" and from the caves and cracks in the rock they poured an incessant fire upon their assailants. At last the Summit was gained, and after a desperate and sanguinary struggle, the enemy was subdued. Sekhukhune however, like Cetswayo, succeeded in escaping and was only captured a few days later. He was treated for a time as a State prisoner and his land was settled somewhat after the Zulu manner... If, however, the death of Sekhukhune portends anything, it means that the displaced Chief in these savage and warlike regions still retain some power, and that on occasion they are able to rise successfully against him who has superseded them..." This tribute, however, reluctant, is significant because it was not in the habit of the London Times to devote columns of editorial space to the passing of African kings. Sekhukune is also a place of majestic beauty with regal mountains, lush valleys and meandering rivers. Under the soil lie vast deposits of precious metals - so vast that they today contain the largest reserves of platinum group metals in the world.

The Elias Motsoaledi Local Municipality (previously Greater Groblersdal Local Municipality) is located in the southern part of Sekhukhune District of the Limpopo Province. The municipality is named in honor of the late Elias Motsoaledi, who was born on 26 July 1924 in Nebo, Sekhukhune land. He went to Johannesburg at the age of 17 in search for work. He played an active role in the establishment of the South African Congress of trade unions. A lifelong member of the ANC, and the SACP, he also played a central role in many campaigns, including the Defiance Campaign of 1952, the year in which he was banned. He was detained in terms of the 1960 State of Emergency and imprisoned for four months.

On his release, he went underground and served on the Johannesburg Regional Umkhonto we Sizwe. Arrested in 1963, Motsoaledi was one of the Rivonia Trialists and was sentenced to life imprisonment on Robben Island, a sentence he served until his release in 1989 – 26 years later. Upon his release, he was elected to National Executive Committee of the ANC. He passed away on the day of the inauguration of the first democratic president of South Africa, his fellow Rivonia Trialist and Robben Island prisoner, Dr Nelson Mandela. The seat of the municipality is in Groblersdal and the other town of significance is Roossenekal. Key economic activities are community services, agriculture, tourism, and land development.

2. BRIEF SYNTHESIS ON THE ARCHAEOLOGICAL AND HERITAGE.

Existing knowledge indicates the presence of prominent heritage sites within the Sekhukhune Municipality (Huffman, 2007; Delius 2007).

2.1. Stone Age sequence (ESA, MSA and LSA)

The Early Stone Age of the area is fairly well understood and stretches from 250 000 years ago. The earliest stone tools are known as the Acheulian industry and are dominated by heavy butchering tools. Inferential evidence suggests that these simple tools were used to chop and butcher meat, de- skin animals and probably to smash bones to obtain marrow (Phillipson, 2005). The presence of cut marks from animal fossil bones dating to this period has led to the conclusion by researchers that human ancestors were scavengers and not hunters (Wadley, 2007; Esterhuysen, 2007). They may have preyed on drowned or crippled animals or shared a kill by other predators, which explains why some ESA sites contain high proportions of bone from large and dangerous game (Wadley, 2007). Some of these remarkable archaeological sites that yielded Early Stone Age tools (Acheulian hand axes) that were dated to nearly 100 000 years ago are scattered throughout Southern Africa (Walker, Chazan & Morris 2013).

The Acheulian industries are characterized by the presence of bifacial hand axes and cleavers. These bifacial tools emerged started around 1.5 million years ago (mya) at places such as Sterkfontein. The Acheulian techno-complex was characterized by a great deal of standardization of tools across widely separated areas from Africa to Eurasia (Sharon, 2009). Evidence presented from Sterkfontein cave in Gauteng, Kathu pan in the Kalahari,

Makapansgat in Limpopo as the Sudwala caves in Mpumalanga shows that the first tool making hominids belong to either an early species of the Homo or an immediate ancestor which is yet to be discovered here in South Africa (Esterhuysen, 2007). The Acheulian industries are well represented in the archaeology of the Cradle of Humankind particularly at sites such as Sterkfontein and Kromdraai and Kathu pan (Walker, Chazan & Morris 2013). A large collection of these stone tools are on display at the main entrance of Sudwala caves in Mpumalanga Province.

The Middle Stone Age dating between roughly 250 000 years ago and 25 000 years before present succeeded the Early Stone Age. Comparatively, Middle Stone Age tools are smaller than those of the Early Stone Age period. They are characterized by smaller hand axes, cleavers, and flake and blade industries. The period is marked by the emergence of modern humans and is characterized by the appearance of fairly complex technology, modern human behavior, art, and symbolism (Thompson & Marean, 2008). A variety of MSA tools includes blades, flakes, scraper and pointed tools that may have been hafted onto shafts or handles and used as spear heads. Residue analyses on some of the stone tools indicate that these tools were certainly used as spear heads (Wadley, 2007). The presence of spear heads on some of the MSA assemblages is an indication that these group of people were hunters who targeted middle sized game such as hartebeest, wildebeest and zebra (Wadley, 2007), Some assemblages are show the presence of bone tools such as bone points.

The Late Stone Age (LSA) which stretches from 25 000 years ago to about 2000 years ago is the last phase in the Stone Age sequence. The LSA is characterized by the use of micro lithic tools some of which were found in most sites around the Mpumalanga region. Many of the sites have been seriously damaged by illegal attempts to discover the burial places of legendary gold that Paul Kruger is said to have buried during his flight at the end of the Anglo Boer War. It is not uncommon to find sites where the entire stratigraphy has been completely destroyed (Hampson, Challis, Blundell & De Rosner, 2001).

2.2. Rock art associated with the Late Stone Age and the Iron Age sequence

The province is known owing to the extremely presence of Khoisan people who were also the first permanent inhabitants of the region. San rock art represent unique example of the survival of human cultural endeavor that is part of remarkable religious tradition which is

at least 27,500 years old. Rock art is distinctive prehistoric art that occur in various forms namely: Petroglyphy (engravings) and rock paintings (Pictographs). The art is fragile including the cultural landscape in which they are situated, once damaged, or destroyed; they can never be repaired or replaced. The art, sites and landscape provide links with important elements to our past which allows us to establish the sense of orientation about our place in time.

The rock art is one of the rare arts done in the San tradition, together with the ethnography, and the history of African communities (Swazi/ Ndebele and the Sotho) in the area provides a valuable commentary by which the indigenous people themselves relates their history and the processes attached to the rock art sites. Historical records relate that people of mixed San and indigenous Swazi descent were living in the wider area as they were engaged in rain making, a practice that was carried on by San people in many parts of southern Africa. The rock paintings tradition is characterized by the earliest tradition of finely detailed images that reflect belief and san cosmology, most of the paintings are in red ochre; survey shows animal figures are more common than any other categories, followed by items such as lines, dots and animal figures etc. This is usually in the South African context where painting of animal and human images pre dominates. As such rock art sites generally have tremendous cultural significance.

Furthermore, the sites were used for traditional and religious ceremonies for the creator of the art as well as the recent African group's descendants. For example The Sudwala cave is currently used by Somqubas descendants as the place where they worship and held traditional beer drinking ceremonies. There are several different traditions that can be correlated with the cosmology of the San hunter gathering, such as that of Iron Age farmers. Early farming community art is different from the San art. The art is characterized by few finger paintings and geometric design in thick red and sometimes white pigment which probably belongs to herder art tradition.

2.2.1. Early Iron Age Sequence

2.2.1.1. Iron Age (EIA, LIA)

Documents suggest that the Iron Age communities moved into southern Africa by c. AD 200, entering the study area either by moving down via coastal plains route of Mozambique or through the Inland. Their movement followed various rivers inland such as

the Crocodile, Sabie, Nsikazi, White River and Gutshwa. Being cultivators, they preferred the rich alluvial soils to settle on. These agro pastoralist brought with them variety of domestic grain including sorghum and millet (Maggs &Ward 1984). Maize did not form part of their dietary package since this type of grain was introduced into southern Africa much later, at roughly 1550 AD.

These landscapes, drainage systems and good climatic conditions could have influenced diverse societies including wildlife and farming communities to settle within the region. It is indisputable that the natural environment has played the dominant part; nevertheless it is not deterministic (Katsamudanga, 2007). The introduction of farming communities in southern Africa early in the first millennium AD is characterized by the appearance of distinctive pottery wares (Huffman, 2007), metal working (Friede, 1979), agriculture and sedentism (Maggs, 1980; Phillipson, 2005). Mining and metallurgy were largely limited to the reduction of iron and copper ore for the manufacturing of utilitarian and decorative implements.

Research coverage has been previously skewed towards the Lydenburg perhaps this is because of the location of major sites within the Lydenburg. The top most one is assemblages which bear very strong resemblances to the Kliengbeil, Lydenburg and Eiland sites. The Lydenburg Heads site dated to the late fifth Century AD (Inskeep, 1971). The full range of Plaston vessel shapes and decoration layout is present here. Many of these sites have been found in the Kruger National Park over the past 20 years (Meyer, 1986). Meyer identified seven different Early Iron age sites ceramic tradition on the eleven excavated sites.

It is generally believed that there are various phases within the Iron Age sequence. The earliest sites most likely range between AD 280 and 450 (Silver Leaves-250-395, Pta 2360, Pta 2459, Pta 914) and are represented by the site of Silver Leaves near Tzaneen (Klapwijk, 1974; Huffman, 2007). The site is generally assumed to be the precursor of Iron Age sites within the Limpopo Province. This first phase was followed by Happy Rest, with sites dating between AD 450 and 750 (Eiland Salt Works-AD390-435, Pta 1524, Pta1608, Pta 1607, Wits 764, Happy Rest-AD430-555, Pta 2421-Klein Africa 415-535, Pta 1168). Happy Rest and Klein Africa are situated in close proximity to the Soutpansberg Mountains (Prinsloo, 1974; Huffman, 2007). The current thinking based on preliminary studies is that

Garonga Phase (SK 172 bone 800Pta 3507) mostly ranges between AD 750 and 1000 (Huffman, 2007; Burret 2007). This phase is represented by sites near Mica and Kruger Park (Meyer, 1986; Burret 2007).

All Early Iron age sites were recorded situated in close proximity to water sources (Archeo-info, 2000; Huffman, 2007, Burret, 2007; Mathoho, 2012; unpublished Mphil, thesis). The position of this type of settlement are associated with environmental element that could be interpreted as what the environment offers as opportunities for early farming communities survival (Katsamudanga 2007).

Iron Age occupation of the region seems to have taken place on a significant scale and at least three different phases of occupation have been identified, however the last period of pre-colonial occupation consisted of Sotho and Swazi speaking people that settled on stone-walled sites and caves. At present it is not clear, but, judged on the pottery found; these sites might even date to early historic times. As this was a period of population movement, conflict and change. Considering the time period that they were occupied, they also feature in the early historic period.

2.2.1.2. Stone wall sites associated with the Late Iron Age and historical periods

The region lies within the asserted traditional territories where previous research works was conducted by Mason (1960,) Collet (1982), Maggs (1995), Evers (1975) Esterhysen & Smith (2007). Their research work shed more light in the understanding of the archaeology of the Mpumalanga escarpment. A high density of archaeological settlement sites are known to cover approximately 150 kilometer stretch of land as reflected by an aerial photographic survey .Sites distribution is relatively easy to establish, because they are not covered by *black wattle* or *Eucalyptus* plantations and they can be easily be plotted using air photographs (Mason1968; Evers 1975). With specifics to the earlier archaeological work, particularly those of Evers (1975) and Collett (1982), Maggs (1976) have shown that most of the stone walling sites within the region fit broadly into the well-known phenomenon of stone-built settlements of Black, agriculturist communities which flourished in grassland areas of South Africa within the past 500 years. Other aspects of the material culture are typically Late Iron Age, as is the basic economy, with evidence of cattle and small livestock as well as the African cultigens *Sorghum* and *Vigna* ("cow peas") (Collett, 1982).

The chronology remains imprecise, partly because of the paucity of fieldwork and partly because radiocarbon dating itself becomes of limited value for samples younger than AD 1600. Few available dates do, however, suggest that Marateng flourished within the last four hundred years (Evers & Vogel 1980). The distribution of Marateng settlements is relatively easy to establish as they show up well on air photos, provided they are not blanketed by bush or timber plantations. Both Mason (1968) and Evers (1975) used air photos to plot sites, however their map seems to be the first attempt to show a complete distribution of this settlement type. The result suggests a virtually continuous belt of settlement running from Ohringstad in the north, through Lydenburg and Machadosdorp, to Carolina in the south, a distance of 150 km. From this belt several lines of outliers lead off eastwards down the Komati valley and upper tributaries of the Crocodile, but nowhere reach the Lowveld.

Evers (1975) have identified three basic settlement layout namely: The first and simple consisted of two concentric circles, the inner circle was thought to be the cattle kraal and the space between the circles representing area in which huts were built, the second type was an elaboration of the first in that the inner circle had one or more smaller enclosures attached to it, again huts were built between this complex and the outer ring wall. The third type was an agglomeration of small circles that did not conform to the pattern of the other two. Esterhysen & Smith (2007) maintained that it is not clear whether these different kinds of settlement were occupied by different people at the same time or different periods, but however based on the general density of the stone wall settlement in the region; there must have been a substantial increase in population or movement of people in the area.

Collet (1982) classified these settlements and contended that they comprised of three basic units, namely: homesteads, terraces and livestock enclosure. Some of these stone walling are Koni identified with the extensive Badfontein type of walling found along the Mpumalanga escarpment, more or less contemporary with Melora. Badfontein walling emphasizes the centre/side axis of the Central Cattle Pattern expressed through concentric circles: the inner circle encompassed cattle, the next marked the men's court, and the outer ring the zone of houses.

Rock engravings in the same area depict this settlement layout pattern. The slopes were terraced with lines of stones that ran along the contours, and livestock tracks to the

outside of the settlement edged in stones. Oral traditions place Koni (Ndebele) in this escarpment area before the Pedi, and some walled settlements must first date before AD 1650, perhaps as early as AD 1600 which was characterised by the second dispersal. The centre/side layout pattern indicates that they were of Langa origin from northern KwaZulu-Natal. Later, as the associated ceramics show, they became allied to the Pedi. These Badfontein probably chose the escarpment because it is part of a mist belt that would have offered some relief to dry conditions during the Little Ice Age (Huffman, 200 Based on such datable phenomena as initiation cycles, other northern and southern groups are thought to have left KwaZulu-Natal between about AD 1630 and 1670. These dates, of course, are tentative. At about the same time, around AD 1700, cool and very dry conditions prevailed throughout the subcontinent. Analysis of climatic data shows that this was the worst time in the Little Ice Age. Dated with remarkable precision, this event is so close to the historical dating that the severe conditions were the most likely reason for the third set of movements. Although the reason may have been the same, there were so many small groups at different times that a co-ordinated movement was unlikely.

Ceramic descriptions of these sites clearly reflect Moloko falling within the range of Sotho-Tswana wares (Collet, 1982; Huffman, 2007). Classification and analysis indicated that this ceramics belongs to Marateng pottery, which is the reminiscent of the Pedi pottery. Ethnography and the Pedi oral history of the region show that these groups of people were called the Koni (Ndebele). As part of this uncoordinated movement, several small groups entered the Pretoria area. These include the well-known Manala and Ndzundza Ndebele who claim Musi as a legendary leader. Significantly, Ndzundza capitals in the Steelpoort area to the northeast, such as KwaMaza have a Moor Park variant of stonewalling: kraals and middens lay down slope of the most important residential zone. Pedi pottery (*Marateng*) in Ndzundza settlements demonstrates interaction with northern neighbours.

Fortunately, the history of many Nguni-derived groups on the plateau today is accessible to oral traditions. Generally, those who live north of the Springbok Flats are known collectively as Northern (Transvaal) Ndebele and those below as Southern (Transvaal) Ndebele. Generally again, many northern groups claim Langa as a legendary leader and many of those to the south claim Musi (Van Warmelo, 1935). If they retained the Nguni

language, they are called Ndebele, while those who adopted Sotho-Tswana are Koni (Sotho-Tswana for *Nguni*).

The third set of movements also included various groups that claim Langa as a legendary leader. Most of these Langa people were supposed to have followed the escarpment north through Swaziland before turning west to climb onto the plateau. Thus, there was a different Langa route out of KwaZulu-Natal. The main route most Langa Ndebele took north, through the Swaziland and Mpumalanga low-veld, suggests that the original Langa homeland was in northern KwaZulu-Natal. It is significant that most Nguni groups today who claim Langa ancestry live in that area. The combination of oral history, routes and settlement patterns shows that the division between Langa and Musi is ancient, extending back to at least the middle of the Moor Park phase, and that this division has a geographical expression (Huffman, 2007).

In 1800 communities around the region were living harmoniously, trading and farming it was up to the year 1826 when Mzilikazi Khumalo fled from King Shaka's rule and reaches the region devastating the communities.

2.2.1.3. Early African settlement

Documents suggest that the Lowveld was habituated by Sotho/Tswana speaker. Their villages were associated with stone walls and terraces, land clearings and agriculture. They were cultivators and miners of copper, gold and iron. Towards the end of the 19th Century the Swazis began raiding their livestock and then move northwards into places such as Mbombela either by pushing the early inhabitants or assimilating them into their ranks. By the late 1870s the Swazi settlement extended north of Swaziland border and westwards along the Crocodile River. The lower part of the region remained largely uninhabited due to the presence of tsetse flies. The Swazi movement was possibly necessitated by land shortages resulting from both increases in Swazi human and livestock population. Some historians argued that their movement was mainly based on land restrictions imposed by the king.

Most of the major villages were located along the river valley in close proximity to major stream such as De kaap, Queens, Crocodile, Komati and Lomati Rivers. Their economy was based on subsistence agriculture and livestock herding. The agricultural crops include Maize, beans, cow peas, groundnuts and variety of squash (Packard, 2001).The less

privileged African communities were scattered over the flats, in 1877 rinderpest epidemic wipe out both cattle and game in the region. The disease crippled their economy, both production of food stuffs which was supplemented by spoils acquired through periodic raiding activities collapsed. The epidemic greatly reduced the availability of milk which in a soured forms known as *emasi* which was a major component of Swazi diet (Packard, 1984, 2001). The absence of cattle with which to trade for grain forced many Swazi men to seek wage employment; they were forced to work at gold mines at Barberton and then later on the Rand or white owned farms.

2.2.1.4. European settlement

Historical documents suggest that the Mpumalanga region was previously known due to the first hunters and explorers who ventured in to the region from the Cape Colony. At that time, several black tribes occupied the area Mpumalanga region these African cultural groups included Sotho, Swazi and Ndebele.

The great trek was initiated by group of people who wanted to be free, since the British recognized independence of the area north of the Vaal River. The first movement northwards was initiated under the leadership of Louis Trichardt and Hans van Rensburg in 1835. This group left the Cape Colony to cross Orange and Vaal River on their way to the north. They arrived in the region at around April 1836 and set up settlements in various locations. However relation between the two groups (Trichardt and van Rensburg) became tense. They splited and move off in different directions. One of the earliest settlements, in 1836 was in the Soutpansberg, north of Pietersburg. The second Voortrekker movement was acknowledge to have been led by Andries Hendrik Potgieter who arrived in 1848, however other historical sources suggest that Andries Hendrik Potgieter established Ohringstad in 1845. Later in 1848 he led a group that settled on the site Trichardt's group had abandoned, just outside present day Louis Trichardt and established a town Zoutpansbergdorp.

Whites began settling in the region in the middle of the 19th century. This could be associated with the tragic trek of a party of Afrikaner led by Louis Trichardt to Mozambique in 1837.This movement ended in a fewer death of most of the settlers and they had to withdrew to higher lying areas of Mpumalanga. They had tried to settle in Ohringstad valley in 1843 and in 1848 the valley was abandoned and Lydenburg was

established. Both areas were fever ridden with malaria and Nagana epidemic. President Burgers sought to end the isolation of the Transvaal by developing relations with non-English colonial powers, and in 1875 began a round of negotiations with Portugal to secure access to the sea via a rail link to Delagoa Bay.

None the less in 1884 alluvial gold was discovered near the present town of Barberton and Whites begin settling in the eastern Lowveld. The subsequent gold rush in 1886 attracted 10000 diggers. Gold mining led to land speculation and expansion of white claim to land in the Lowveld area. Mining created a market for agriculture. The Boers dispensed plots of land to white new comers and most of the land were acquired from the Mswati who gave land to the Boers outside his jurisdiction because he wanted the Boers protection against the Zulus. It was during this time where the Boers began to resort to child labour, using African children captured in raids on villages. Soon a trade in children developed, especially with the Swazi, who wanted to develop a relationship with the Boers.

By 1890s most miner's foodstuffs market had shifted to Witwatersrand but the construction of railway line connecting South Africa and Mozambique created a second wave of agricultural development. The agricultural system of the region was extremely labour intensive. Not all white settlers shared the economic opportunities created by agriculture some were hunters for game and trading in ivory and animal hides with Portuguese. These goods were much in demands in Europe and they could be transported to Mozambique and exported from there.

After the unsuccessful Bloemfontein conference the Transvaal government had realized that War with the British was inevitable. They began to prepare themselves, so did the British. On 8 September the British cabinet decided to send 10 000 men to Natal to strengthen the defense of this British outpost. In retaliation on 27 September President Paul Kruger called up all Boers between the age of 16 and 60 of the Transvaal and persuaded President Steyn of Free State Province to follow the suit. The Boer realized the advantage of striking first, the commandos were therefore ordered to the borders. The commandos of Lydenburg and Carolina were deployed to strengthen to defend the Swaziland borders. Both Boer republics mobilized their artillery units and rallied (Changuion, 2001).

The first Anglo-Boer War broke out from 1880 to 1881. The Anglo Boer war delayed further advancement, Industrial, mining and agricultural until the twentieth century. By 1910 pockets of agriculture had emerged along the River Valley around Nelspruit and Barberton (Packard, 2001). The introduction of DDT and its success in getting rid of Malaria carrying mosquitoes encourage poor white farmers to settle in large numbers, many of them moved to settle in the Lowveld towns and engaged in various forms of commerce or served as skilled laborer. Statistical records show that white population of the Nelspruit town nearly doubled growing from 2,186 to 4.247. From 1951 to 1960 Nelspruit had 11.839 white populations (Packard, 2001).

Most of the historical sensitivity areas is represented by a period associated with the development of farm homestead as well as infrastructure (e.g. roads) many of these farms have been in the ownership of families for generations. As a result they possess a large corpus of information with regarding to the area and its history. A significant numbers of battles and skirmishes took places in the region. There are remains of blockhouses that should be anticipated on the ridges and at river crossings.

3. LEGISLATIVE REQUIREMENTS

Two sets of legislation are relevant for the study with regards to the protection of heritage resources and graves presented here. Under the National Heritage Resources Act (Act 25 of 1999) (NHRA), the Human Tissue Act (65 of 1983) (HTA) an HIA is required as a specialist sub-section of the HIA.

3.1. The National Heritage Resource Act (25 of 1999)

Archaeological heritage in South Africa is governed by the National Heritage Resource Act (25 of 1999) (NHRA) and falls under the overall jurisdiction of the South African Heritage Resource Agency (SAHRA). There are different sections of the NHRA that are relevant to this study. NHRA established SAHRA as the prime custodians of the heritage resources and makes provision for the undertaking of heritage resources impact assessment for various categories of development as determined by Section 38. It also provides for the grading of heritage resources (Section 7) and the implementation of a three-tier level of responsibly and functions from heritage resources to be undertaken by the State, Provincial and Local authorities, depending on the grade of heritage resources (Section 8). In terms of the NHRA the following is of relevance:

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.

Archaeological remains

Section 35(3) Any person who discover archaeological or Paleontological object or material or a meteorite during development or agricultural activity must immediately report the find to the responsible heritage resource authority or the nearest local authority or museum, which must immediately notify such heritage resources authority.

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 palaeontological 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 the purpose of obtaining information on whether or not 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.

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 in the course of 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 the purpose of obtaining information on whether or not 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 make arrangements 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.

Cultural Resource Management

Section **38(1)** Subject to the provisions of subsection (7), (8) and (9), any person who intends to undertake a development*…

- must at the very earliest stages of initiating such development notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

development means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of the heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including:

(i) Construction, alteration, demolition, removal or change of use of a place or a structure at a place;

(ii) Any change to the natural or existing condition or topography of land, and

(iii) Any removal or destruction of trees, or removal of vegetation or topsoil;

place means a site, area or region, a building or other structure

structure means any building, works, device or other facility made by people and which is fixed to the ground.

3.2. The Human Tissue Act (65 of 1983)

This act protects graves younger than 60 years; these falls under the jurisdiction of the National Department of Health and the Provincial Health Department. Approval for the exhumation and reburial must be obtained from the relevant provincial MEC as well as relevant Local Authorities.

4. TERMS OF REFERENCE

The terms of reference for the study were to conduct heritage impact assessment for the specific additional activities located within the approved mining right area in compliance

with Section 38 of the National Heritage Resources Act, 1999 (NHRA Act No. 25 of 1999) and the Limpopo Heritage Resources Authority (LIHRA).

- an assessment of the significance of such resources in terms of heritage assessment criteria set out in regulations;
- an assessment of the impact of the development on heritage resources;
- an evaluation of the impact of the development on heritage resources relative to the interested parties regarding the impact of the development on heritage resources;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development.

5. SCOPE OF WORK

The scope of the proposed development was conducted as part of the specialist input which addresses the following:

- Provide an account of the identified heritage resources with standard documentation.
- Evaluate the significance of the identified heritage resources.
- Outline the potential impacts to the identified heritage resources in light of the sustainable socio-economic benefits.
- Suggest recommendations that offer practical measures for the management and/or mitigation of the identified heritage resources to benefit from the heritage resources and at the same time making sure that they are preserved.
- To submit a HIA report to LIHRA, and SAHRA for evaluation as required by Section 38(8) of the NHRA.

5.1. Methodology

The study was undertaken using a stepped methodology which combined desktop study, systematic field surveys (fieldwalking and drive-throughs) and mapping. These field techniques were used to document the physiographic settings and history of the area as well as determining the presence/absence of any natural and cultural heritage landmarks

on the footprint of the area proposed mineral prospecting. Published and unpublished data on the paleontology, archaeology, history and anthropology of Sekhukhune was collated from dissertations, heritage institutions, heritage practitioners, archaeologists, and anthropologists, historians that have done research in the area, conservation bodies, municipalities, Non-Governmental Organizations, Libraries, and heritage information systems such as SAHRIS. Among the datasets examined included archived manuscripts, blueprints, survey reports, maps paintings, photographs, books, journal articles, site registers, monographs and autobiographies which were examined from databases held at information repositories such as the South African National Heritage Resources Agency (SAHRA). These included maps, photographs, site registers, journals, monographs and autobiographies, and fieldwork reports - particularly AIAs and HIAs hosted by heritage databases such as SAHRA. The latter formed a key component of this research; they provided background information, which aided towards understanding the archaeology of the landscape (i.e., Roodt, 2012; Van Vollenhoven 2012 &2013; Van Pistorius 2009).

Figure 1: View of the proposed area from the Eastern side

Figure 2: View of the fish farming ponds within the proposed site.

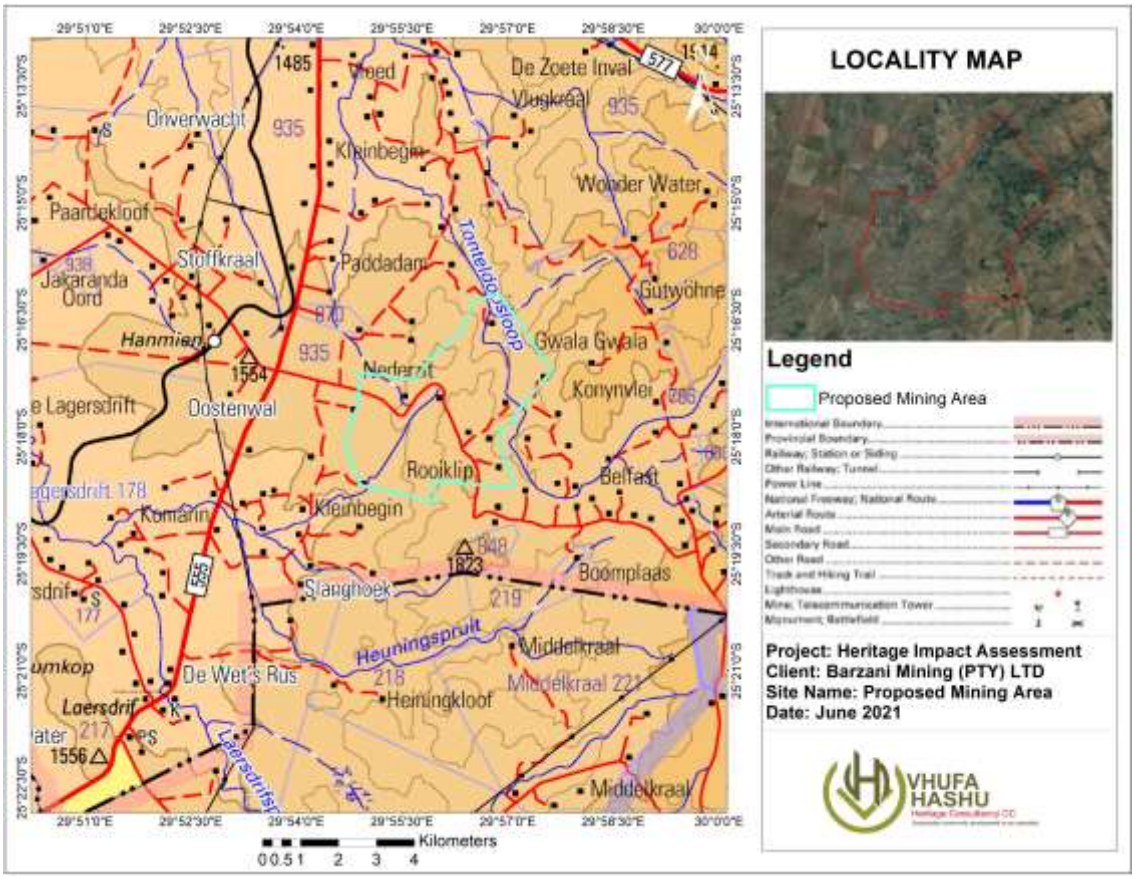

Figure 3: Locality Map of the proposed site.

Figure 4: The extent of the surveyed area in relationship to the proposed development

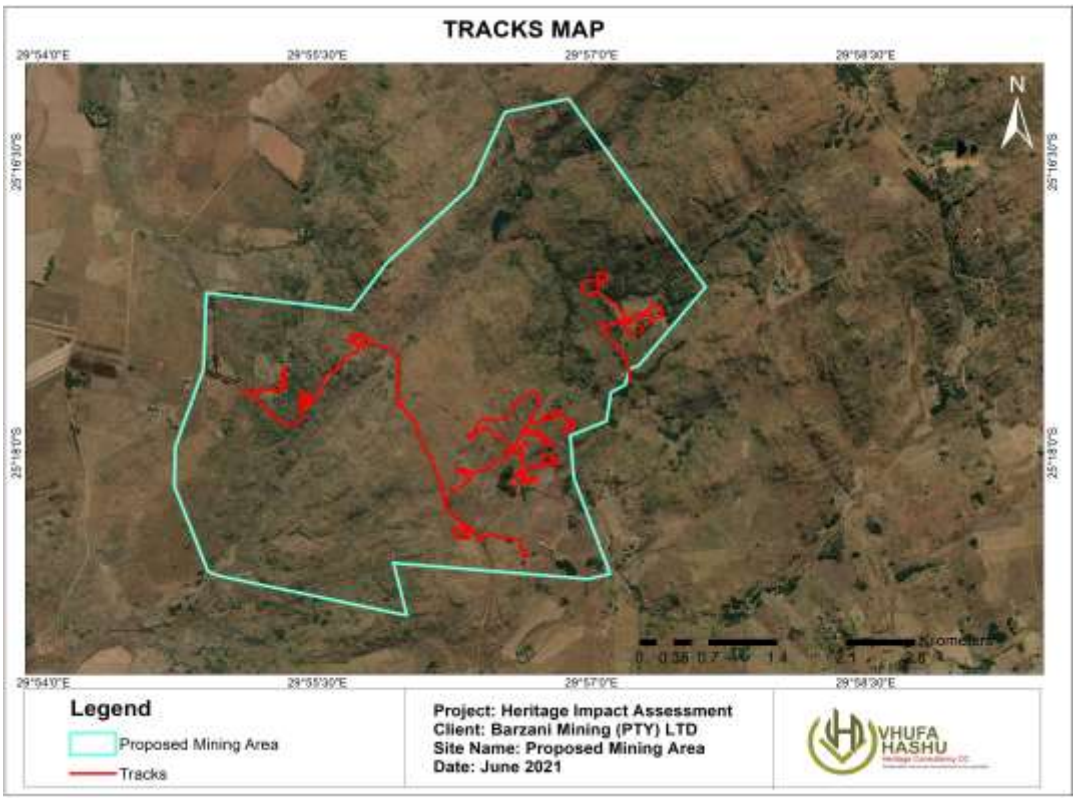

Figure 5: Track record of the proposed site.

6. ASSUMPTION AND LIMITATIONS

The investigation has been influenced by the unpredictability of buried natural and cultural heritage remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be remembered that heritage deposits (including graves and traces of mining heritage) usually occur below the ground level. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted immediately, and SAHRA or LEDET must be notified for an investigation and evaluation of the find(s) to take place (cf. tissues act (Act No. 25 of 1999), Section 36 (6). Recommendations contained in this document do not exempt the developer from complying with any national, provincial, and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHRA. Vhufa Hashu Heritage Consultants assumes no responsibility for compliance with conditions that may be required by SAHRA in terms of this report.

7. ASSESSMENTS CRITERIA

This section describes the evaluation criteria used for determining the significance of the identified natural and cultural heritage resources. The significance of these heritage sites was based on the following criteria:

- The uniqueness of a site.
- The amount/depth of the natural and cultural deposit and the range of features (i.e., stone walls, activity areas etc.)
- The wider historic, cultural, and geographic context of the site.
- The preservation condition and integrity of the site.
- The potential to answer present research questions.

7.1. Site Significance

The site significance classification standards as prescribed in the guideline and endorsed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used as guidelines in determining the site

significance for the purpose of this report. The classification index is represented in the Table below.

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
National Significance (NS)	Grade 1	-	Conservation; National Site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction
Generally Protected C (GP.C)	Grade 4B	Low Significance	Destruction

Grading and rating systems of heritage resources

7.2. Impact Rating

VERY HIGH

These impacts would be considered by society as constituting a major and usually permanent change to the (natural and/or cultural) environment, and usually result in severe or very severe effects, or beneficial or very beneficial effects.

Example: The loss of a species would be viewed by informed society as being of VERY HIGH significance.

Example: The establishment of a large amount of infrastructure in a rural area, which previously had very few services, would be regarded by the affected parties as resulting in benefits with VERY HIGH significance.

HIGH

These impacts will usually result in long term effects on the social and /or natural environment. Impacts rated as HIGH will need to be considered by society as constituting an important and usually long-term change to the (natural and/or social) environment. Society would probably view these impacts in a serious light.

Example: The loss of a diverse vegetation type, which is fairly common elsewhere, would have a significance rating of HIGH over the long term, as the area could be rehabilitated.
Example: The change to soil conditions will impact the natural system, and the impact on affected parties (e.g., farmers) would be HIGH.

MODERATE
These impacts will usually result in medium- to long-term effects on the social and/or natural environment. Impacts rated as MODERATE will need to be considered by the public or the specialist as constituting a fairly unimportant and usually short-term change to the (natural and/or social) environment. These impacts are real, but not substantial.
Example: The loss of a sparse, open vegetation type of low diversity may be regarded as MODERATELY significant.
Example: The provision of a clinic in a rural area would result in a benefit of MODERATE significance.

LOW
These impacts will usually result in medium to short term effects on the social and/or natural environment. Impacts rated as LOW will need to be considered by society as constituting a fairly important and usually medium-term change to the (natural and/or social) environment. These impacts are not substantial and are likely to have little real effect.
Example: The temporary changes in the water table of a wetland habitat, as these systems are adapted to fluctuating water levels.
Example: The increased earning potential of people employed because of a development would only result in benefits of LOW significance to people living some distance away.

NO SIGNIFICANCE
There are no primary or secondary effects at all that are important to scientists or the public.
Example: A change to the geology of a certain formation may be regarded as severe from a geological perspective but is of NO SIGNIFICANCE in the overall context.

7.3. Certainty

DEFINITE: More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

PROBABLE: Over 70% sure of a particular fact, or of the likelihood of an impact occurring.

POSSIBLE: Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.

UNSURE: Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.

7.4. Duration

SHORT TERM : 0 – 5 years

MEDIUM: 6 – 20 years

LONG TERM: more than 20 years

DEMOLISHED: site will be demolished or is already demolished

7.5. Mitigation

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be classified as follows:

- ✓ **A** – No further action necessary
- ✓ **B** – Mapping of the site and controlled sampling required
- ✓ **C** – Preserve site, or extensive data collection and mapping required; and
- ✓ **D** – Preserve site

8. RESULTS

A total of 22 sites were recorded during the survey and the typology of these sites ranges from historical to contemporary built structures, as well as burial grounds (see figure 6). Burial grounds were predominant (11), and these comprised of 63 graves, followed by historical and contemporary built structures (07) which included farmhouses and laborer camps. The last category was the stone walls (03) (Figure 26 - 28). Nevertheless, all of these sites are located on the footprint of the proposed area (Figure 4) above.

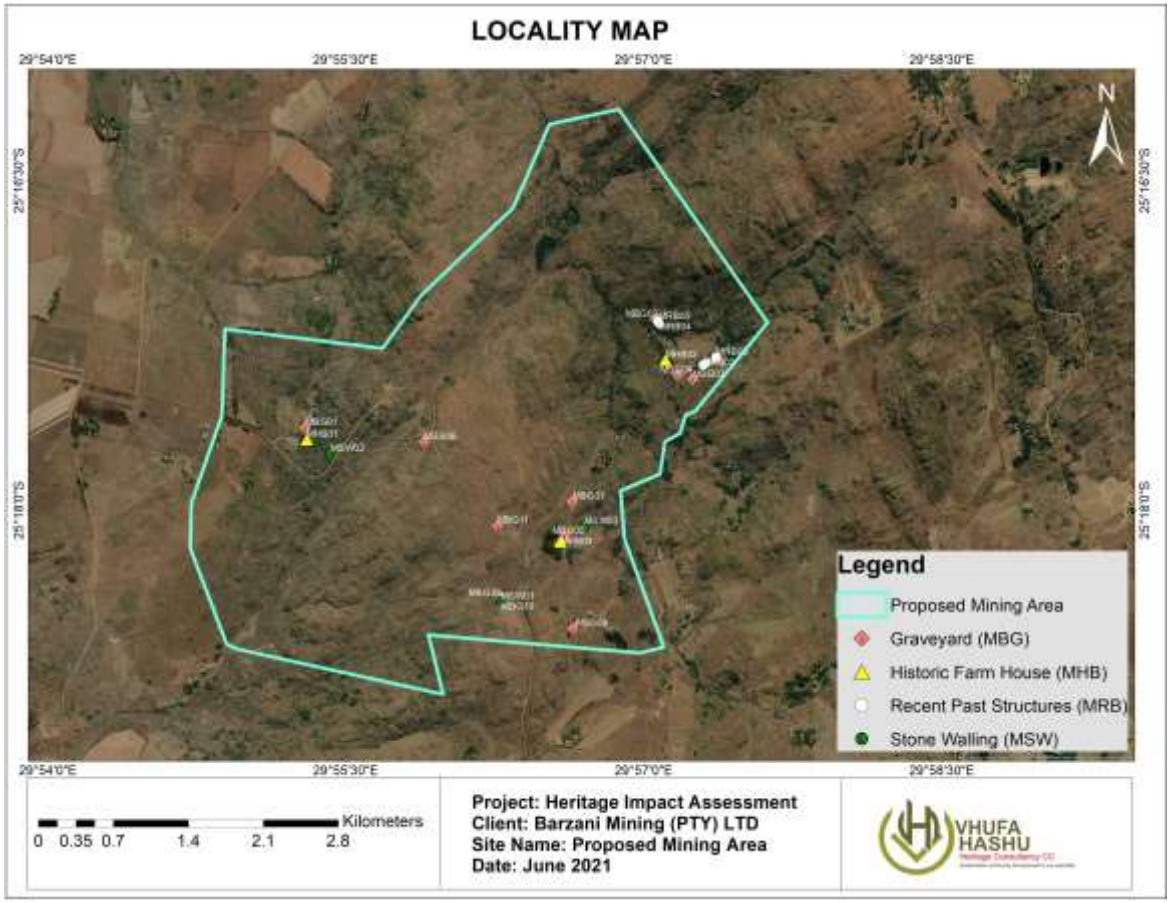

Figure 6: 22 sites identified within the proposed site.

8.1. Graves and grave yards

A total of 11 graveyards were recorded within the project area and the total number of graves is 63. It is highly likely that some graves and graveyards have been missed in the Project area considering its size and extent.

8.1.1. Graveyard 01 (MBG01)

This graveyard is situated next to the farm house and is having only four (04) graves, two graves is fitted with one big granite tombstone (GPS Coordinates S25°17.623' E29°55.295'). Some of the inscriptions on the head stones read as follows:

- Hier Rus ons geliefde Pa Oupa en Oupa Grootjie, Jacobus Daniel, Geb: 06-02-1991 Oorlede: 09-09-1960, Ps 37:11, Jon 5; 28-29, Ps 37: 28-29, Labuschagne.
- Hier slap ons papa en Mamma, Oupa en Ouma, Dis net vir n Klein Rukkie, Tot ons weer ontmoet Jacobus Daniel, Geb: 30-10-1930, Oorlede: 27-06-2008, Mamma Hester Aletta, Geb: 02-11-1933, Oorlede: 05-06-2004, Labuschagne.

- Daphne, sadly missed by Cecil Husband, Sons, Russell, Cecil Jnr., Nancy, Carol and Grandchildren, Born: 5th January 1927, Passed away: 6 May 2009, Psalms 37 Verses 29 the righteous themselves will possess the earth, and they will reside for ever upon it, Deklerk.
- Cecil, sadly missed by his entire family and friends, born: 17th March 1921 passed away: 18th October 2011, Mathew 25 Verses 13 but he that has endured to the end is the one that will be saved, Deklerk.

Figure 7: Comprises of Labuschagne and Deklerk graves (GY01).

8.1.2. Graveyard 02 (MBG02)

Magane family graveyard, 12 graves (GY02) S25°17.129′ E29° 57.057′
One grave is the inscriptions on the white cross made of fiberglass read as follows:
Magane M Jacob, Born 1979-02-04, Died 2016-07-28

Figure 8: Graves marked with cairns of stones.

8.1.3. Graveyard 03 (MBG03)

Graveyard with four (04) graves S25°17.403' E29°57.244'

The graveyard is comprises four graves, two graves marked with cairn of stones and two marked with granite tomb stones.

Some of the inscriptions on the head stones read as follows:

- Hier Rus, Willem Johannes Kruger,Geb-3-Nov-1921,Oorl-10-1940,Ges-22-Ys l
- Hier Rus, My dierbare Eogenote, En ons Moeder,Catharina-J,Koekemoer,Campher,1884-1966,Ges 7 Vers 1

Figure 9: View of four graves next to the farm gate.

8.1.4. Graveyard 04 (MBG04)

Graveyard with seven (07) graves inside the stone enclosure. Five graves for elder persons marked by granite tomb stones and two graves for children marked by concreate slab. S25°17.383' E29°57.168'.

Some of the inscriptions on the head stones read as follows:

- Hier Rus, my. Geliefde Eggenooten ons Vader Joseph Finning, gebore 20 April 1885, Oorlede 22 June 1966, PS 146.V:3, Kidson.
- Hier Rus, ons dierbare moeder en Ouma Hester Susanna Magdalena Susara, Geb. Ferreira 26 Okt, 1891, Oor.9.Aug.1967, PS.146.V:3, Kidson.
- Hier Rus, Ons Vader Frederick Dodo Kidson,13.4.1920-21.10.1967,Kidson
- Hier Rus, My Teergeliefde Eggenote, Regina Catharina Groenewald Geb Kidson. Geb 24 Nov 1912,Oo 31 Mei 1946,Ges,22.3
- Hier Rus Ons Teerbeminde Dogtertjie Hester Susara, Gebore 20.7.1936, Oorlede 25.11.1936, Veilic in Jesus Arms, Smit.

Figure 10: Kidson Family graves inside the stonewall enclosure.

8.1.5. Graveyard 05 (MBG05)

Prinsloo family graveyard with three (03) graves two graves marked with granite tomb stones and one grave is marked with concreate slab situated within Highlands Country Lodge S25°18.120' E29°56.606'

Some of the inscriptions on the head stones read as follows:

- Joachim Johannes Prinsloo, Geb.27 Oct. 1848,Oorl.18 Julie 1938,Openb.14.13
- Maria Louisa Prinsloo, Geb. Straaus 25 Apr. 1852,Overl.23 Oct 1920,Openb.14.13
- Maria Louisa Prinsloo, Oeb Merl,Overl.12 August 1946,Job 11:21

Figure 11: Prinsloo family graveyard within the highlands Country Lodge.

8.1.6. Graveyard 06 (MBG06)

Graveyard with Nine (09) graves, five graves marked with granite tomb stones and four graves are marked with cairn of stones situated along the main gravel road from R555 and R577/Dullstroom S25°17.471' E29°55.883'

Some of the inscriptions on the head stones read as follows:

- In Liefdevolle, Herinnering aan, Sophia Jacoba (Gebore Prinsloo), Van Kinders en Kleinkinders, Born 1944-01-07, Died 2011-10-01, Openb.21….ek het n nuwe Hemelen Aarde gesien.
- Prinsloo Catharina Johanna Cicilia, Psalem 23,Die Here is my Herde, Geb 5.11.1906,Oorl 18.1.1988,met tere Herinnering Aan ons moeder Van u Kinders.
- Prinsloo Adriaan Johannes, ter gedagtenis Van jou Vrou en Kinders, Geb 30.4.1890, Oorl 5.10.1967.
- Ter gedagtenis aan my dierbare eggenote en ons Moeder, Hendrieka Cornelia Prinsloo, Phillip 1.21, Want vir my is die lewe Christus en die sterwe wins.
- Met liefdevolle Herinnering aan Riaan, Born 13.08.1976,Died 20.06.2001,Psalm 28: 6,geloofde sy die here, want hy het my smeking gehoor, ons mis jou, Van jou Ma Suster en Broers snoesen.

Figure 12: View of GY06 next to the main gravel road from R555 to Dullstroom.

8.1.7. Graveyard 07 (MBG07)

Buda graveyard with Nine (09) graves marked with cairn of stones situated at the back of the house S25°17.957′ E29°56.642′

Figure 13: Buda Family Graveyard.

8.1.8. Graveyard 08 (MBG08)

Masango graveyard with five (05) graves marked with cairn of stones situated at the back of the house S25°18.536′ E29°56.652′

Figure 14: View of Masango family graveyard.

8.1.9. Graveyard 9 (MBG09)

Three (03) Makuwa graves, only one grave is visible and marked with cairn of stones. The graves are not fenced and they are situated at the north western side of the stone cattle enclosure S25°18.400' E29°56.274'

Figure 15: View of Makuwa graves North West of the old stone cattle enclosure.

8.1.10. Graveyard 10 (MBG10)

Graveyard with three (03) graves, two graves marked with granite tomb stones and one grave is marked with cairn of stones situated on the southern side of the old cattle enclosure S25°18.424' E29°56.282'

Some of the inscriptions on the head stones read as follows:

- Mpapana Lucas Makuwa,Born 1910-06-10,Buried 1989-05-20,Robala ka Khutso kwena ya Madiba retlo go gopola ka Mehla.
- Matsemela Sabina Makuwa, 1917-07-09, 1996-06-20, Robala ka khutso kwena ya Madiba re tlogo gopola ka mehla.

Figure 16: View of Makuwa graveyard on the southern side of the old cattle enclosure.

8.1.11. Graveyard 11 (MBG11)

Four (04) graves marked with cairn of stones at the back of the house of Paul Sithole's house, three graves belongs to Buda family while one grave belong to Makuwa (grave of Skilingdon Makuwa S25°18.068' E29°56.262'

Figure 17: View of Buda and Makuwa at the back of Paul Sithole's house.

8.2. Historic Farm Houses

8.2.1. **MHB01** (S25°17.652′ E29°55.297′)

Figure 18: View of the farm house 01.

8.2.2. **MHB02** (S25°17.327′ E29°57.128′)

Figure 19: View of the farm house 02.

8.2.3. **MHB03** (S25°18.140′ E29°56.582′)

Figure 20: View of the farm house 03.

8.3. Recent Past Structures

8.3.1. **MRB01** (S25°17.330' E29°57.314')

Figure 21: Vandalized thatched house.

8.3.2. **MRB02** (S25°17.338' E29°57.298')

Figure 22: Recent past mud bricks ruins.

8.3.3. **MRB03** (S25°17.302′ E29°57.363′)

Figure 23: View of recent past laborers houses**.**

8.3.4. **MRB04** (S25°17.149′ E29°57.077′)

Figure 24: Recent stone structures within the proposed area.

8.3.5. **MRB05** (S25°17.139′ E29°57.070′)

Figure 25: View of the farm laborer camp.

8.4. Stone Walling

8.4.1. **MSW01** (S25°18.413′ E29°56.278′)

Figure 26: Stone Cattle kraal enclosure.

8.4.2. **MSW02** (S25°17.740′ E29°55.421′)

Figure 27: View of Stone wall within JD Venter farm.

8.4.3. **MSW03** (S25°18.071′ E29°56.700′)

Figure 28: View of the stone wall next to Highlands Lodge.

9. CONCLUSION

Grounding on the statutes of the National Heritage Resources Act (NHRA Act 25 of 1999) and the Human Tissue Act (HTA Act 65 of 1983), the footprint of the proposed prospecting area lies very close to a range of significant and non-significant heritage resources. Firstly, as noted earlier, the predominant heritage resources recorded were burial grounds. These are of high significance and are respectively protected by the NHRA (Act 25 of 1999), the HTA Act 65 of 1983, and the Ordinance on exhumation (Ordinance no 12 of 1980) which respectively distinguishes various categories of graves, burial grounds, and exhumation procedures. The NHRA (Act 25 of 1999) applies whenever graves are older than sixty years. Graves younger than 60 years are protected by the HTA Act 65 of 1983, and the Ordinance on exhumation (Ordinance no 12 of 1980) since they are younger than 60 years. Therefore, all the recorded burial grounds comprised of the 63 graves are highly significant and warrant protection. If any of the graves or graveyards may be affected by the proposed project, they have to be mitigated. Two possible mitigation actions can be considered. The first option is to put the fence around the grave. The second option is the exhumation and relocate the graves to the local cemetery, after following a detailed social consultation process that will include the site notices, radio and newspaper adverts, meetings with community members, getting consent for the removals from family members and the obtaining of permits for the exhumation and relocation process.

Development projects that involve any form of earth-moving are potential threats to archaeological materials and sites. Archaeological sites are buried under the soil surface where they are relatively safe until natural forces such as erosion and human development actions such as road construction. These sites are usually identified by exposed bone materials, pottery remains, burnt daga house remains, ash middens etc. The most sensitive of these are human burials. From a cultural heritage point of view the development should be allowed to continue taking careful attention of the above. Should any be uncovered during the development process the Archaeologist should be called in to investigate and recommend on the best way forward.

Secondly except for the farmhouse in Figure 18 – 20 above, all the recorded historical and contemporary built structures have no significance as they are associated with recent past which is mostly associated with the last quarter of the 20th century going forward. Remains from the recent past they don't need mitigation measures and can be destroyed (Figure 21-25).

The stone walls within the project area qualify as heritage remains and are protected by Section 35 of the National Heritage Resources Act (No 25 of 1999).The constructers should watch out when they open the access roads not to damage the stone walls within the site.

Following from the conclusion, the following recommendations were reached:

It is strongly recommended that the planning of sites proposed for prospecting activities including the design and siting of access routes must possible avoid heritage sites.

- The constructors should always respect and be conscious all the time when they are working next to the grave yards.
- All grave yards should be demarcated with a danger tape to alert the constructors when they are working around the grave yards.
- It is strongly recommended that exploration team should avoid centering their drilling activities in close proximity of graves, stone walls, homesteads, ruins and floors in order to avoid impacts to such heritage resources.
- Should chance finds be recovered in the process of development especially during the opening of access roads, work must be stopped immediately and reported to the archaeologist or the heritage authorities.
- The appropriate mitigation would be to leave a 25 meters buffer zone at each site.
- It is recommended that the prospecting be authorized subject to the proviso that heritage sites are avoided and where they cannot be avoided, a proper plan must be put in place to mitigate the sites as per the provision of the National Heritage Resources Act.

Table 1: Impact of the proposed development and recommendations for the identified heritage resources.

GRAVE CODE	GRAVE AND GRAVEYARD	COORDINATES	SIGNIFICANCE
MBG01	Labuschagne and Deklerk graves.	S25°17.623′ E29°55.295′	High
MBG02	Graves marked with cairns of stones.	S25°17.129′ E29° 57.057′	High
MBG03	Four graves next to the farm gate.	S25°17.403′ E29°57.244′	High
MBG04	Kidson Family graves inside the stonewall enclosure.	S25°17.383′ E29°57.168′	High
MBG05	Prinsloo family graveyard within the highlands Country Lodge.	S25°18.120′ E29°56.606′	High
MBG06	GY06 next to the main gravel road from R555 to Dullstroom.	S25°17.471′ E29°55.883′	High
MBG07	Buda Family Graveyard.	S25°17.957′ E29°56.642′	High
MBG08	Masango family graveyard.	S25°18.536′ E29°56.652′	High
MBG09	Makuwa graves North West of the old stone cattle enclosure.	S25°18.400′ E29°56.274′	High
MBG10	Makuwa graveyard on the southern side of the old cattle enclosure.	S25°18.424′ E29°56.282′	High
MBG11	Buda and Makuwa at the back of Paul Sithole's house	S25°18.068′ E29°56.262′	High
FARM HOUSES CODE	**FARM HOUSES DESCRIPTION**	**COORDINATES**	**SIGNIFICANCE**
MHB01	Farm house 01.	S25°17.652′ E29°55.297′	High
MHB02	Farm house 02.	S25°17.327′ E29°57.128′	High

MHB03	Farm house 03.	S25°18.140′ E29°56.582′	High
RECENT PAST STRUCTURES CODE	**RECENT PAST STRUCTURES DESCRIPTION**	**COORDINATES**	**SIGNIFICANCE**
MRB01	Vandalized thatched house.	S25°17.330′ E29°57.314′	Low
MRB02	Recent past mud bricks ruins.	S25°17.338′ E29°57.298′	Low
MRB03	View of recent past laborers houses.	S25°17.302′ E29°57.363′	Low
MRB04	Recent stone structures within the proposed area.	S25°17.149′ E29°57.077′	Low
MRB05	View of the farm laborer camp.	S25°17.139′ E29°57.070′	Low
STONE WALLING CODE	**STONE WALLING DESCRIPTION**	**COORDINATES**	**SIGNIFICANCE**
MSW01	Stone Cattle kraal enclosure.	S25°18.413′ E29°56.278′	High
MSW02	View of Stone wall within JD Venter farm.	S25°17.740′ E29°55.421′	High
MSW03	View of the stone wall next to Highlands Lodge.	S25°18.071′ E29°56.700′	High

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APPENDIX A: TYPES AND RANGES AS OUTLINED BY THE NATIONAL HERITAGE RESOURCE ACT (ACT 25 OF 1999)

The National Heritage Act (Act No 25 of 1999, Art 3) outlines the following types and ranges of the heritage resources that qualify as part of the national estate, namely:

(a) Places, buildings structures and equipment of cultural significance;
(b) Places to which oral tradition are attached or which are associated with living heritage;
(c) Historical settlement and townscapes
(d) Landscape and natural features of cultural significance;
(e) Geological sites of scientific or cultural importance
(f) Archaeological and paleontological sites
(g) Graves and burial ground including-
    (I) Ancestral graves
    (II) Royal graves and graves of traditional leaders
    (III) Graves of victim of conflict
    (IV) Graves of individuals designated by the minister by notice in the gazette;
    (V) Historical graves and cemeteries; and
    (VI) Other human remains which are not covered by in terms of the Human Tissue Act,1983(Act No 65 of 1983)
(h) sites of significance relating to the history of slavery in South Africa;
(i) movable objects, including-
    (I) object recovered from soil or waters of South Africa, including archaeological and paleontological objects and material, meteorites and rare geological specimens;
    (II) objects to which oral traditions are attached or which are associated with living heritage
    (III) ethnographic art and objects;
    (IV) military objects;
    (V) objects of decorative or fine art;
    (VI) object of scientific or technological interest; and
    (VII) books, records, documents, photographs, positive and negatives, graphic, film or video material or sound recording, excluding those that are public records as defined in section1(xiv) of the National Archives of South Africa Act,1996(Act No 43 of 1996).

The National Heritage Resource Act (Act No 25 of 1999,Art 3)also distinguishes nine criteria for places and objects to qualify as 'part of the national estate if they have cultural significance or other special value… these criteria are the following:

(a) its importance in the community, or pattern of South Africa's history;
(b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
(d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
(e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
(f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
(g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
(h) Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa
(i) Sites of significance relating to the history of slavery in South Africa.

APPENDIX B: PROCESS OF GRAVE EXHUMATION

Application of a permit from SAHRA's BGG Unit or PHRA in terms of Section 36 of the National Heritage Resources Act for **graves older than 60 years.**

- **Graves of known identity:** Proof of thorough consultative process:
  - Locate next of kin and obtain letter of consent from next of kin.
  - Obtain a letter of consent or statement of no objection from the local traditional authority.
  - Determine a place for the re-burial of each grave in consultation with next of kin. In addition, also determine the arrangement of reburial, i.e., by the next of kin/community or a funeral undertaker.
  - Submit documentation of the above with the permit application to SAHRA.
  - Inform SAPS of intent to relocate the grave/s and submit a copy of the permit to SAPS.

- **Graves of unknown identity:** Proof of thorough consultative process:
  - Place advertisement in a local and national newspaper with description and location of graves and full contact detail of consultant and developer. A waiting period of 60 days applies.
  - If no reaction to advertisement follows, then apply for permit from SAHRA after the waiting period of 60 days with proof of advertisement and any other consultative process.
  - If in rural area obtain a letter of consent or statement of no objection from local traditional authority must be submitted with permit application.
  - If advertisement leads to a claim from next of kin or from a community who by tradition has an interest, then written consent from relevant party must be obtained.
  - Determine a place for the re-burial of each grave
  - Submit documentation of the above with the permit application to SAHRA.
  - Inform SAPS of intent and process of re-burial and submit a copy of the permit to SAPS.

Graves less than 60 years old in terms of the Human Tissues Act (Act no. 65 of 1983) and the Removal of Graves and Dead Bodies Ordinance No. 7 of 1925

- Locate the next of kin of the buried persons and obtain consent from the next of kin for the relocation of the graves.
- Determine a place for the re-burial of each grave.
- Obtain a letter of consent or statement of no objection from the local traditional authority.
- Submit above documentation to the Department of Health and obtain permission for the relocation of the graves – which process would most probably be regulated by the District Municipality.
- Inform the Local South African Police Service and provide documentation from relevant heritage authority.
- The graves are to be exhumed under the supervision of an archaeologist.