



PHASE 1

ARCHAEOLOGICAL SCOPING STUDY

PROPOSED CONSTRUCTION OF A FILLING STATION ON THE FARM
LEEUFONTEIN 188JR, ALONG R568 AT PIETERSKRAAL VILLAGE WITHIN JS
MOROKA LOCAL MUNICIPALITY OF NKANGALA DISTRICT, MPUMALANGA
PROVINCE.

PREPARED FOR
Mabyoko Environmental Projects

PREPARED BY
Vhufa Hashu Heritage Consultants cc
25 Roodt Street, Mbombela
P.O.Box 1856, Mbombela, 1200
Tel: +27 13 752 3227, Fax: 086 263 5671
E-mail: info@vhhc.co.za

Richard Munyai & Eric Mathoho

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Executive Summary

General

The area of the proposed Filling Station was surveyed on foot. No sites were found within the proposed site for development. The proposed filling station is going to be developed in a 7000 square meters area within Leeuwfontein 188JR, along R568 at Pieterskraal Village within JS Moroka Local Municipality of Nkangala District, Mpumalanga Province.

Summary Results

The field survey was conducted on the 18 of July 2017. The survey covered the proposed area affected by the development. No significant archaeological sites or material remains were identified on the site earmarked for the proposed filling station development.

Summary Recommendations

There are no archaeological or cultural heritage resources barriers to the proposed development, should archaeological or historical finds be found accidentally during construction phase heritage authorities should be informed.

TERMINOLOGY

The following aspects have direct bearing on the survey and the resulting report:

- **Archaeological sites** are places where people lived and left evidence of their presence in the form of artifacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.
- **Cultural Resources** are all non-physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- **Cultural Significance** is the aesthetic, historical, scientific and social value for past, present and future generations.
- **Conservation** means all the processes of looking after a place so as to retain its cultural significance.
- **Historic** means significant in history.
- **Historical** means belonging to the past.
- ***In Situ* material** means archaeological remains that have not been disturbed.
- **Place** means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

Preservation means protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

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.

Acknowledgements:

CLIENT NAME: Mabyoko Environmental Consultants

CLIENT CONTACT PERSON: Lethabo Tele

PROJECT CO-ORDINATOR: Munyai Rudzani Richard

STUDY LEADER: Mathoho Ndivhuho Eric
Field Director for Vhufa Hashu Heritage
Consultants.
Professional Member of the Association of
Southern African Professional Archaeologist
(#159)



SIGNATURE

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1. INTRODUCTION

Vhufa Hashu Heritage Consultants was appointed by Mabyoko Environmental Projects to undertake a Cultural heritage impact Assessment study as part of the Environmental Impact Assessment (EIA) for the proposed project on the proposed construction of a filling station on the farm Leeuwfontein 188 JR, along R568 at Pieterskraal Village within JS Moroka Local Municipality of Nkangala District, Mpumalanga Province. The size of the proposed area is 7000 square meters. The information presented in this report provides the background and the basis for the Heritage Resources component of the Project impact assessment. The heritage resources impact assessment focused on archaeological sites.

The Project proposal constitutes an activity, which may potentially be harmful to heritage resources that may occur in the demarcated area. 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 legislation, the Applicant requires information on the heritage resources, and their significance that occur in the demarcated area. This will enable the Applicant to take pro-active measures to limit the adverse effects that the development could have on such heritage resources.

2. TERMS OF REFERENCE

The terms of reference for the study, based on the methodology employed by Heritage Impact Assessors are to:

- a) To undertake a Phase 1 Heritage Impact Assessment in accordance with the National Heritage Resources Act No. 25 of 1999;
- b) To establish whether any of the types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act 25 (No 25 of 1999)

that occur in the Project Area and, if so, to determine the nature, the extent and the significance of these resources.

- c) To identify and map all heritage resources in the vicinity of the affected area, as defined in Sections 3 of the National Heritage Resources Act, 1999, including archaeological and paleontological sites on or close (within 20m) to the proposed Project area;
- d) To assess the significance of such resources in terms of the heritage assessment criteria as set out in the SAHRA regulation;
- e) Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;

3. LEGISLATIVE REQUIREMENTS

In terms of the National Heritage Resources Act (Act 25 of 1999) 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(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

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.

Culture 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.

4. AIM OF STUDY

The aim of this Archaeological Impact Assessment (AIA) Study was to determine the presence or absence of heritage resources such as archaeological, historical sites, features, graves, places of religious and cultural significance, and to submit appropriate mitigation recommendations with regard to the identified cultural resources management measures that may be affected by the proposed development.

4.1. Project Developers and Consultants

Developers are encouraged to consider archaeological values in their project planning and design from the outset. This will minimize scheduling and budget difficulties at later stages. As Consultants in the archaeological assessment process, we are responsible for: *(see table 1)*

- ❖ Determining the presence of archaeological sites that may be adversely impacted by the proposed development, and evaluate their significance.
- ❖ Identification of potential adverse impacts to archaeological sites protected under the National Heritage Resources Act No: 25 of 1999.
- ❖ Assessing of the heritage significance of identified archaeological sites to assist in the development of appropriate mitigation strategies.
- ❖ Make recommendations for avoidance or mitigation of protected or otherwise significant archaeological sites.
- ❖ Reporting the results of these studies to the Heritage Authorities.

Table 1

5. METHODOLOGY

Literature

A brief literature survey relating to the Pre-historical and historical context of the project area where the proposed development have been undertaken. In addition, the proposed site was studied by means of the 1:50 000 topographical maps and the 1:250 000 map on which the proposed study area appears. The sources consulted in this regard are indicated in the bibliography.

Field survey

The assessment was conducted according to generally accepted HIA practices and in this case the extent of the proposed area were determined as well as the extent of the area to be affected by secondary activities (access route) during the development. A systematic inspection of the area on along linear transects resulted in the maximum coverage of the proposed area. The survey was conducted on 28 July 2017.

Restrictions

It must be pointed out that heritage resources can be found in unexpected places, it must also be borne in mind that survey may not detect all the heritage resources in a given project area. While some remains may simply be missed during surveys (observation) others may occur below the surface of the earth and may be exposed once development (such as the construction of the facilities and access roads) commences.

Documentation

All sites/find spots located during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/find spots were plotted using a Global Positioning System (GPS) (Garmin Oregon 650) and numbered accordingly, while photographs were also taken using Canon EOS 1000D.

6. ASSESSMENT CRITERIA

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were based on the following criteria:

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

6.1 Site Significance

The site significance classification standards is indicated by means of stipulation derived from the National Heritage Resources Act (Act 25 of 1999) and endorsed by the South African Heritage Resources Agency (2006) approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, have been used as guidelines in determining the site significance for the purpose of this report.

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 4C	Low Significance	Destruction

Grading and rating systems of identified heritage resources in terms of National Heritage Resources Act (Act 25 of 1999).

6.2 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 as a result 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.

6.3 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.

6.4 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

6.5 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

7. DESCRIPTION OF THE AREA

The proposed development is situated at Leeuwfontein 188 JR along road R568 at Pieterskraal Village within JS Moroka Local Municipality of Nkangala District, Mpumalanga Province. The area is located at GPS (S25 11'29.93" E28 53'36.32").

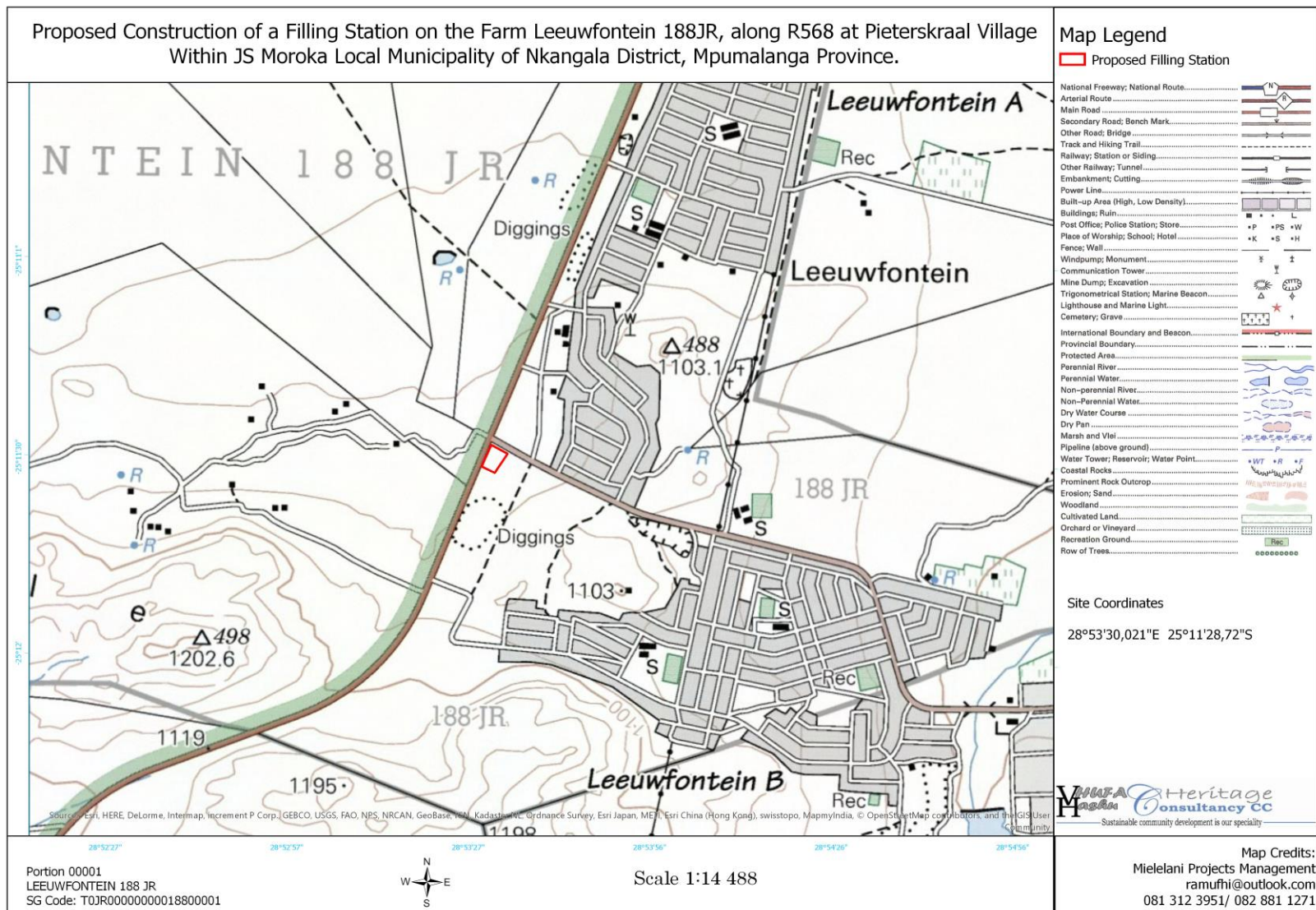


Figure 1: Locality Map



Figure 2: Aerial view of the Proposed Filling Station



Figure 3: General view of the proposed site.



Figure 4: Close view of the proposed site for a filling station to the west.

8. BRIEF ARCHAEOLOGICAL HISTORY OF MPUMALANGA PROVINCE

Like some other provinces in South Africa, Mpumalanga is poorly researched archaeologically. However, evidence from research that has been conducted on sites

within the province shows that the province has a wide spectrum of sites belonging to different time periods and cultural traditions.

8.1 Stone Age (ESA, MSA and LSA)

Previous studies conducted to date within the Mpumalanga Province shows that the province is of significance in term of pre- historic and historical era. The province is of high priority, the heritage and archaeological understanding is supported by overwhelming recorded evidence represented by the presence of cultural material fingerprints (remains). Generally, the archaeology of human occupation within the Northwest province are made out of pre-colonial elements (stone and Iron ages) as well as the colonial components. The Early Stone Age spans a period of between 1.5 million and 250 000 years ago and refers to the earliest Homo predecessors; the period is associated with introduction of tools made out of stones. Similar archaeological material finger prints associated with the early period (Stone tool artifacts) has been found in Tanzania at Olduvai Gorge and elsewhere in the Northern Cape and Free State Provinces of South Africa. The stone tool industry was referred to as the Oldwan Industry. Most of the stone artifacts recovered were not neatly made and they were very crude in makings.

The ESA tools were simple tools which, were among other things used to chop and butcher meat, de- skin animal and probably to smash bones to obtain marrow. 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 (Esteyhuysen, 2007). They may have preyed on a drowned or crippled animals or shared a kill by another predator, which explains why at some ESA sites occur high bone proportions of large, dangerous game (Wadley, 2007). The industries were later replaced by the Acheulian stone tool Industry which is attested to in diverse environments and over wide geographical areas. The Industry is characterized by large cutting tools mostly dominated by hand axes and cleavers. Bifaces emerged in East Africa more that 1.5 million years ago (mya) but have been reported from a wide range

of areas, from South Africa to northern Europe and from India to the Liberian Coast. The end products were astonishingly similar across the geographical and chronological distribution of the Acheulian techno-complex: large flakes that were suitable in size and morphology for the production of hand axes and cleavers perfectly suited to the available raw materials (Sharon, 2009). Evidence presented from Sterkfontein, Makapansgat caves 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 (Esteyhuysen, 2007). Both the Oldwan and Acheulian industries are well represented in the archaeology of the Cradle of Humankind from sites at Sterkfontein and Kromdraai. These discoveries have made considerable contribution to the body of scientific knowledge in the subject of tool manufacturing in association with human evolutions. At Kromdraai site two definite Oldwan stone tools estimated to date to around 1.9 million years ago were discovered.

The Middle Stone Age dates back to about 250 000 ago ending at around 25 000 years ago. In general 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 through the change in technology, behavior, physical appearance, art, and symbolism. Various stone artifact industries occur during this time period, although less is known about the time prior to 120 000 years ago, extensive systemic archaeological research is being conducted on sites across southern Africa dating within the last 120 000 years (Thompson & Marean, 2008). Surface scatters of these flake and blade industries occur widespread across southern Africa although rarely with any associated botanical and faunal remains. It is also common for these stone artifacts to be found between the surface and approximately 50-80cm below ground. Fossil bone may be associated with MSA occurrences. These stone artifacts, like the Earlier Stone Age hand axes are usually observed in secondary context with no other associated archaeological material.

An early South African Middle Stone Age stone artifact industry referred to as the Mangosian had a very wide distribution stretching across Limpopo, the eastern Orange Free State, around Cape Point and Natal (Malan 1949). This stone artifact industry, according to the period, may have represented the final development that the prepared core technique of the Middle Stone Age reached prior to its replacement by the microlithic techniques of the Later Stone Age. Malan (1949) also made mention that there are variations of Middle Stone Age assemblages throughout South Africa (Binnerman *et al*, 2011).

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 (widely, 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 last phase of stone tool development is associated with Late Stone tools. The period is associated with the use of micro- lithic stone tools. LSA tool have been found in the Cradle of humankind, however the LSA sites within North West province are currently dominated by rock shelters most of which has polychrome san paintings.

8.2 Iron Age / First-Farming Communities

Controversy still surround the question of the first arrival of Africans in South Africa, however, archaeological evidence has now disproved the old notion that African arrived at the same time with the colonialist at the Cape Town (Maggs, 1986). Iron Age communities moved into southern Africa by c. AD 200, entering Limpopo and North West Provinces either by moving down via Botswana, Zimbabwe or via coastal plains route. Their movement followed various rivers inland. Being cultivators, they preferred the rich alluvial soils to settle on. It is believed that as Iron Age people moved they came

into contact with hunter-gatherers (Klatzow, 1994). Current evidence indicates that the first Iron Age communities were established in the Limpopo Province at 280 AD (Klapwijk 1974; Huffman 2007). 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 characterised 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.

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 Pedi, Ndebele and the Tswana 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. It is generally believed that ceramic potteries are material culture that expresses group identity because they form a repeated code of cultural symbols, as the design form a repeated code (Huffman 2007). As this was a period of population movement, conflict and change, it in large part set the scene for the current population situation in the country. Sites dating to the early Iron Age are known to occur within the Waterberg region. These sites are distinguished from the presence of thicker and decorated pottery shards, kraals, possible remains of domesticated animals, upper and lower grindstones and storage pits are associated for identifying Early Iron Age sites. The sites are generally large settlements, but the archaeological visibility may in most cases be difficult owing to the organic nature of the homesteads. Metal and iron implements are also associated with Early Iron Age communities. Hilltop settlement is mainly associated with Later Iron Age settlement patterns that occurred during the second millennium A.D.

The Later Iron Age communities later moved from settlement in river valleys to the hilltops. Later Iron Age settlements have been formally recorded and cover a relatively extended area in comparison with the EIA settlement patterns. The Iron Age occupation of the study area seems to have taken place on a significant scale as represented by the presence of stonewalled sites. These structures are associated with the latter period dating from 16th to 18th centuries (Thorp, 1996). Much controversy still surrounds the attempts by various linguists to reconstruct the development and the spread of the African family of languages. Linguistic and archaeological evidence suggest that the latter part of the Iron Age period is most likely associated with ancestors of Ba- Pedi, Ndebele and the Tswana.

8.3. Historical / Colonial period

Historical archaeology refers to the last 500 years when European settlers and colonialism entered into southern Africa. Movement into the interior was closely linked with the change from farming to stock farming. The movement of Boer into the interior got underway when Wilhelm Adrien van der Stel began to issue free grazing permits in 1703. The exoduses went hand in hand with hunting expeditions into the interior which not only provided the farmers with meat, but also enable them to learn more about the resources of the hinterland. British government made its laws which undermine the freedom of the Boers. The mounting conflict between African and white stock farmers played the dominant part. This led to the general dissatisfaction and a feeling of insecurity among the Afrikaner. The frontier wars of 1834/35 caused the frontier farmers to suffer heavy losses. To aggravate matters, land prices rose sharply during the 1820 and 1830 and drought was a serious problem. These conditions threatened the pastoral lifestyle. There was no land for the younger generations. They opted to migration in search of land and grazing in the interior.

During the great trek into the interior they were already acquainted with conditions of the interior and with the main trek routes. They got available information from travelers, hunters and missionaries. The foremost Voortrekker, Louis Tregardt and Hans van

Rensburg were the pioneer of the Transvaal Lowveld left in 1835. Andries Hendrik Potgieter, the conservative founder of the Transvaal, emigrated towards the end of 1835. By 1836 the vanguard of Potgieter trek had crossed the Vaal River. When the white entered the Transvaal the plains were restricted by Africans for grazing purposes, while occupying the high altitude and mountains.

Mzilikazi, the powerful Ndebele guarded with growing suspicion the arrival of so many whites from the same direction. He then realized that such a large group of white constituted a threat to the survival of the Ndebele. The Ndebele attacked the Trekkers at Vegkop on the 16 October 1836. In January 1837 Potgieter captured Mzilikazi stronghold and drove the Ndebele far to the north. Potgieter was firmly convinced that they should seek the salvation of an independent Voortrekker state, far away from British influence.

The 18th century's period is marked by the presence of white, where land was taken from African chiefs and redistributed to the Boers; this was followed by demarcation of portions of land into farms. The first white farms were established along the rivers and tributaries, close to springs consequently the banks of the Marico, Mooi and Apies rivers were well populated at the early stage. This development was also associated with the development of gravel roads and later towns. The followers of Andries Pretorius concentrated around Potchefstroom and Rustenburg, while a group under the leadership of Andries Hendrik Potgieter settled in the Soutpansberg. Other towns that emanated from these settlements were Pretoria which was laid out in 1855. An important factor which determines the initial settlement pattern was the desire to have access to a harbor to break the economic isolation of the Transvaal.

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 number of battles and skirmishes took place in the region. The remains of blockhouses can be found on many ridges and at river crossings (Van Schalkwyk, 2011).

Leeuwfontein inherit its cosmopolitan vitality from an often violent and turbulent past, townships many battle fields and grave sites scattered throughout the province bear witness to the challenge faced by people. The southern Transvaal Ndebele occupied the river valley, which was to become the location of the city of Pretoria long ago by around 1600 AD.

It is still unclear when and how Ndebele parted from the main Nguni-speaking migration along the eastern part of southern Africa. Oral history suggests an early (c.late 1500) settlement in the interior, to the immediate north of present-day Pretoria, under a founder ruler called Musi. A succession struggle among Musi's sons is a probable explanation for the twofold split in clans and the resultant two main tribal categories, Ndzundza and Manala. The twofold split resulted in clans associating themselves with one of the two groups. The majority of clans followed Ndzundza, who migrated to KwaSimkhulu, approximately 200 kilometers east of present-day Pretoria. The numerically smaller Manala occupied the areas called Ezotshaneni, KoNonduna, and Embilaneni, which include what are today the eastern suburbs of Pretoria. The Ndzundza chieftaincy is believed to have extended its boundaries along the Steelpoort (Indubazi) River catchment area between the 1600s and early 1800s. Several of these settlement sites (KwaSimkhulu, KwaMaza, and Esikhunjini) are known through oral history and are currently under archaeological investigation.

Both the Ndzundza and Manala chiefdoms were almost annihilated by the armies of Mzilikazi's Matebele (Zimbabwean Ndebele) around 1820. During the Difaqane in Natal, another band arrived in the Pretoria region, they were forced to abandoned their villages in fight from a regiment of Zulu raiders in 1832. The Manala in particular suffered serious losses, but the Ndzundza recovered significantly under the legendary Mabhoko, during the 1840s. He revolutionized the Ndzundza settlement pattern by building a number of impenetrable stone fortresses and renamed the tribal capital

KoNomtjharhelo (later popularly known as Mapoch's Caves). During the middle 1800s, the Ndzundza developed into a significant regional political and military force.

They soon had to face the threat of White colonial settlers, with whom they fought in 1849, 1863, and, finally, in 1883, during the lengthy Mapoch War against the ZAR forces. The latter's tactic of besiegement forced the famine-stricken Ndzundza to capitulate. They lost their independence, their land was expropriated, the leaders were imprisoned (Chief Nyabela to life imprisonment), and all the Ndebele were scattered as indentured laborers for a five-year (1883-1888) period among White farmers. The Manala chieftdom was not involved in the war and had previously (1873) settled on land provided by the Berlin Mission, some 30 kilometers north of Pretoria, at a place the Manala named KoMjekejeke (Wallmansthal).

Chief Nyabela Mahlangu was released after the Anglo-Boer War (1899-1902) in 1903 and died soon afterward. His successor tried fruitlessly in 1916 and 1918 to regain their tribal land. Instead, the royal house and a growing number of followers privately bought land in 1922, around which the Ndzundza-Ndebele reassembled. Within the framework of the Bantustan or homeland system in South Africa, the Ndebele (both Manala and Ndzundza) were only allowed to settle in a homeland called KwaNdebele in 1979. This specific land, climate, and soil were entirely alien to them.

9. ASSESMENT OF SITES AND FINDS

This section contains the results of the heritage site/find assessment. The phase 1 heritage scoping assessment program as required in terms of section 38 of the National Heritage Resource Act (Act 25 of 1999) done for the proposed project.

There are no primary or secondary effects at all that are important to scientist or the general public.

Heritage Significance: No significance

Impact: Negative

Impact Significance: High

<i>Certainty:</i>	Probable
<i>Duration:</i>	Permanent
<i>Mitigation:</i>	A

9.1. Archaeological

No archaeological materials were found in the study area.

9.2. Historical

No historically related sites/materials were found on site and within the close proximity of the study area.

9.3. Graves

No graves were found within the proposed site.

The legislation also protects the interests of communities that have an interest in the graves: they should be consulted before any disturbance takes place. The graves of victims of conflict and those associated with the liberation struggle are to be identified, cared for, protected and memorials erected in their honor.

Graves older than 60 years, but younger than 100 years, fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissue Act (Act 65 of 1983) and are under the jurisdiction of the South African Heritage Resources Agency (SAHRA). The procedure for Consultation regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorization as set out for graves younger than 60 years, over and above SAHRA authorization.

10. RECOMMENDATIONS

No further studies/Mitigations are recommended for the proposed project and there is no archaeological or place of historical significance that will be impacted by the proposed project. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From an archaeological and cultural heritage resources perspective, there are no objections to the proposed project and we recommend to the South African Heritage Resources Agency (SAHRA) authorities to approve the project as planned.

11. STATEMENT OF OVERALL IMPACTS

From a cultural heritage point of view, any development that alters the ground surface status quo will potentially destroy any archaeological resources in its direct path, and the impact will be permanent in nature, extent and duration. Archaeological resources are fixed in space. Any activities that threatens to alter the status quo is, therefore an immediate and direct threat to the heritage resources (Bickford and Sullivan, 1977) However, since there were no archaeological or cultural heritage sites that was identified on the proposed sites the overall impact of the proposed area is considered to be low. Generally speaking, the proposed project will have minimal impact upon any cultural heritage resources given the fact that the survey did not encounter any such sites with any significance threshold.

12. OVERALL RECOMMENDATIONS

- No further predevelopment study or mitigation is necessary for the archaeological and cultural heritage resources with regards to the proposed development. However, there is always a probability of discovering archaeological sites during sub-surface earth moving activities such as digging the foundations or any other trenches.

- Furthermore, the construction team should be informed about the value of the cultural heritage resources in general so as to ensure that they do not damage or destroy the chance archaeological sites they may encounter during construction.

13. CONCLUDING REMARKS

From a heritage perspective, in the absence of any known heritage resources and taking into consideration the socio-economic and other values of the proposed development, there are no barriers to the proposed development. The cultural landscape affected by the project does not have significance threshold to call for a total protection of the landscape. The proposed project may proceed as planned. With the constraints herein discussed there are no objections to the proposed development project and we recommend to the heritage authorities to approve the project accordingly.

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