

# PHASE 1 HERITAGE IMPACT ASSESSMENT REPORT

**PROPOSED TOWNSHIP ESTABLISHMENT EXTENSION 42 ON PORTION  
11 OF THE FARM TWEEFONTEIN 915 LS WITHIN POLOKWANE LOCAL  
MUNICIPALITY OF THE CAPRICORN DISTRICT, LIMPOPO PROVINCE**

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## **EXECUTIVE SUMMARY**

This report addresses a heritage impact assessment of the proposed township establishment on Portion 11 of the farm Tweefontein 915LS within the Polokwane Local Municipality of the Capricorn District, Limpopo Province.

No heritage remains were noted in the project area. The entire area had been ploughed in the past. Had there been any cultural heritage remains, such objects, fragments or features would have been visible on the surface because subterranean material would have been exposed by the ploughing.

From a heritage management perspective, there is no reason why the proposed development may not continue. The proposed project will have no once off or any cumulative impact on heritage resources.

No mitigation measures are recommended for the proposed development.

From a heritage management perspective, there is no reason why the proposed development may not continue.

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## **1. INTRODUCTION AND TERRAIN DESCRIPTION**

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The author was appointed by Phakanani Environmental Consultants to undertake a heritage impact assessment for the Proposed for the proposed township establishment Extension 42 on Portion 11 of the farm Tweefontein 915LS within the Polokwane Local Municipality of the Capricorn District, Limpopo Province.

The proposed development is situated approximately 6km north-north-east of the Polokwane CBD at general coordinates 23°51'38.25"S, 29°28'45.16"E. It is bordered by industrial properties on the west and south (Figure 1).

The property is to be zoned as Industrial 2 and Special (overnight accommodation), which is the existing Lodge on the property (Figure 2).

The entire demarcated area had been ploughed in the past (see Figure 3). The property contains the Airport Africa Lodge, a residential dwelling and old dilapidated farming structures. The farming structures appear to be a stock pen and abattoir, with loading structures. Two dysfunctional broken reservoirs exist on the property.

Because the property had previously been ploughed, trees consist mainly of Vachellia stands.

Large area on the property has also been used for dumping of rubble.

## **2. TERMS OF REFERENCE**

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- Review baseline information;
- Impact assessment – identify and assess potential impacts and determine cumulative impacts relating to the project;
- Identify mitigation measures;
- Provide guidance with regard to additional information, if applicable; and
- Provide project recommendations.

## **3. LEGAL REQUIREMENTS**

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### **3.1 The National Heritage Resources Act (25 of 1999) (NHRA)**

This Act established the South African Heritage Resources Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRA). The Act makes provision for the undertaking of heritage resources impact assessments 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 responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources (Section 8).

In terms of the National Heritage Resources Act (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(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority or to the nearest local authority or museum, which must immediately notify such heritage resources authority.

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

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

**Subsection 35(5)** When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedures in terms of section 38 has been followed, it may-

- (a) 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;
- (b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
- (c) 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
- (d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological 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 resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological 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

### **Subsection 36(3)**

- (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-
- (c) 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
- (d) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in detection or recovery of metals.

Subsection 36(6) Subject to the provision of any law, any person who in the course of development or any other activity discovers 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 resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

- (a) 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
- (b) 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 content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

## Public monuments and memorials

**Subsection 37.** Public monuments and memorials must, without the need to publish a notice to this effect, be protected in the same manner as places which are entered in a heritage register referred to in section 30.

## Culture Resource Management

**Subsection 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-

- (a) construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- (b) carry out any works on or over or under a place\*;
- (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;

**\*\*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 Tissues Act (65 of 1983) and Ordinance on the Removal of Graves and Dead Bodies (Ordinance 7 of 1925)**

This Act and Ordinance protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

## **4. METHODOLOGY**

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### **4.1 Sources of information**

The project area was traversed on foot. Standard archaeological practices for observation were followed. As most archaeological material occurs in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made as well as those made by natural agents such as burrowing animals and erosion. In addition, the SAHRIS database was consulted. Google earth and the 1:50000 2329 CD map was consulted.

### **4.2 Limitations**

No limitations were experienced. After a recent veldt fire, the grass was low and visibility was excellent.

### **4.3 Categories of significance**

The significance of heritage sites is ranked into the following categories.

No significance: sites that do not require mitigation.
Low significance: sites, which <i>may</i> require mitigation.
Medium significance: sites, which require mitigation.
High significance: sites, which must not be disturbed at all.

The significance of specifically an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

### **4.4 Terminology**

Early Stone Age: Predominantly the Oldowan artefacts and Acheulian hand axe industry complex dating to + 1Myr yrs – 250 000 yrs. before present.

Middle Stone Age:	Various lithic industries in SA dating from ± 250 000 yrs. - 22 000 yrs. before present.
Late Stone Age:	The period from ± 22 000-yrs. to contact period with either Iron Age farmers or European colonists.
Early Iron Age:	Most of the first millennium AD
Middle Iron Age:	10 <sup>th</sup> to 13 <sup>th</sup> centuries AD
Late Iron Age:	14 <sup>th</sup> century to colonial period. <i>The entire Iron Age represents the spread of Bantu speaking peoples.</i>
Phase 1 assessments:	Scoping surveys to establish the presence of and to evaluate heritage resources in a given area
Phase 2 assessments:	In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling could be undertaken.
Sensitive:	Often refers to graves and burial sites, as well as ideologically significant sites such as ritual / religious places. <i>Sensitive</i> may also refer to an entire landscape / area known for its significant heritage remains.
NHRA	National Heritage Resources Act (Act no. 25 of 1999)
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System

## 5. GENERIC BASELINE INFORMATION

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### 5.1 The Stone Age

The Stone Age covers most of southern Africa and the earliest consist of the Oldowan and Acheul artefacts assemblages. Oldowan tools are regularly referred to as “choppers”. Oldowan artefacts are associated with Homo *habilis*, the first true humans. In South Africa definite occurrences have been found at the sites of Sterkfontein and Swartkrans. Here they are dated to between 1.7 and 2 million years old. Bearing in mind the proximity of the Makapans Valley palaeontological site about 30km south-east of the project area it is possible that they may occur here. This was followed by the Acheulian technology from about 1.4 million years ago which introduced a new level of complexity. The large tools that dominate the Acheulian artefact assemblages range in length from 100 to 200 mm or more. Collectively they are called bifaces because they are normally shaped by flaking on both faces. In plan view they tend to be pear-shape and are broad relative to their thickness. Most bifaces are pointed and are classified as handaxes, but others have a wide cutting end and are termed cleavers. The Acheulian design persisted for more than a million years and only disappeared about 250 000 years ago. Here, the Makapans Valley Site is referenced; especially the Cave of Hearths.



The change from Acheulian with their characteristic bifaces, handaxes and cleavers to Middle Stone Age (MSA), which are characterized by flake industries, occurred about 250 000 years ago and ended about 30 000 – 22 000 years ago. For the most part the MSA is associated with modern humans; Homo sapiens. MSA remains are found in open spaces where they are regularly exposed by erosion as well as in caves. Characteristics of the MSA are flake blanks in the 40 – 100 mm size range struck from prepared cores, the striking platforms of the flakes reveal one or more facets, indicating the preparation of the platform before flake removal (the prepared core technique), flakes show dorsal preparation – one or more ridges or arise down the length of the flake – as a result of previous removals from the core, flakes with convergent sides (laterals) and a pointed shape, and flakes with parallel laterals and a rectangular or quadrilateral shape: these can be termed pointed and flake blades respectively. Other flakes in MSA assemblages are irregular in form.

The change from Middle Stone Age to Later Stone Age (LSA) took place in most parts of southern Africa little more than about 20 000 years ago. It is marked by a series of technological innovations or new tools that, initially at least, were used to do much the same jobs as had been done before, but in a different way. Their introduction was associated with changes in the nature of hunter-gatherer material culture. The innovations associated with the Later Stone Age “package” of tools include rock art – both paintings and engravings, smaller stone tools, so small that the formal tools less than 25mm long are called microliths (sometimes found in the final MSA) and Bows and arrows. Rock art is an important feature of the LSA. Near Polokwane, rock art exists at the Bakone Malapa Museum and in the hills of the Moletji area.

## 5.2 The Iron Age

In pre-colonial times, various Eastern Bantu-speaking people inhabited South Africa, including Nguni, Sotho-Tswana, and Tsonga. However, they were not the first groups to occupy southern Africa. About 1800 years ago their predecessors brought a new way of life to the region replacing the Stone Age hunter-gatherers. For the first time, people lived in settled communities, cultivating such crops as sorghum, millets, ground beans and cowpeas, and they herded cattle as well as sheep and goats. Because these early farming people also made their own iron tools, many archaeologists call this block of time the Iron Age. They also represent the spread of the Eastern Bantu language into southern Africa. For convenience and to mark widespread events, it is divided into three periods: the Early Iron Age (AD 200-900), the Middle Iron Age (AD 900-1300) and the Late Iron Age (AD 1300-1820) to which the ancestors of the present day Nguni and Sotho-Tswana belonged.

Archaeologists of the Iron Age use ceramic style to establish culture-history sequences. Ceramic sequences are thus the framework for all other domains of Iron Age research, be it life ways (incorporating technology, subsistence and settlement patterns), or the explanation of cultural change.

The earliest cultural expression of the first black farmers that moved into South Africa belonged to the Uruwe Tradition originating from the Great Lakes area of Central Africa, was a secondary dispersal centre for eastern Bantu speakers. East Africa and migrated southwards as part of the Kwale Branch, i.e., the **Eastern stream** of migration and settled in the Tzaneen area in the 3<sup>rd</sup> century AD. This stream moved onto the escarpment in the Lydenberg area and as far south as Durban in KwaZulu-Natal. From the escarpment it moved to Broederstroom near Hartbeespoort Dam. During the 5<sup>th</sup> century onwards, the **Western stream** of migration, namely the Kalundu Tradition originating in the far North of Angola, was another secondary dispersal centre for eastern

Bantu speakers. The Happy Rest Branch represents this stream and has been found in the Zoutpansberg area. It too moved onto the escarpment and further on to KwaZulu-Natal. On the escarpment it developed into the *Doornkop* and later the *Klingbeil* facies. In the western Bushveld of Limpopo, Happy Rest developed into the Diamant facies from which the *Eiland* facies derived (Middle Iron Age). *Eiland* represents the last phase of the Kalundu Ceramic Tradition in the South African interior dating to the 10<sup>th</sup> – 13<sup>th</sup> century AD. It occurs in the study area and over a wide area from the Zoutpansberg to the Magaliesberg.

The Middle Iron Age represents Mapungubwe and the origins of Great Zimbabwe. They are descendants of the Early Iron Age Kalundu Tradition. The Shona of Zimbabwe and the royal families of the Venda descend from the Zimbabwe culture.

The earliest recorded facies of Sotho-Tswana Moloko Branch is *Icon*. *Icon* pottery first appears in the Phalaborwa area and spread to other parts of the Limpopo Province, Mpumalanga and perhaps Botswana, dating to between about AD 1300 and 1500. According to the ceramic evidence, in some places *Icon* incorporated earlier *Eiland* elements. This phase predates the oral record.

In terms of Huffman's (2007) distribution sequences of the Iron Age, the project area may contain the remains of the under-mentioned ceramic (pottery) units which form distinct cultural groups:

**Happy Rest Sub-branch:** *Doornkop facies* AD 750 – 1000 (Early Iron Age).  
*Klingbeil facies* AD 1000 – 1200 (Early Iron Age).  
*Eiland facies* AD 1000 – 1300 (Middle Iron Age).  
\**Letaba facies* AD 1600 – 1840 (Later Iron Age)

\*Letaba pottery is associated with some Bakone and Ndebele people who had interaction with BaPhalaborwa in the east before migrating onto the plateau.

No known archaeological site exists in the near vicinity of the project area and no ceramic potshards were found on the demarcated terrain.

## 6. RESULTS OF THE SURVEY

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### 6.1 Palaeontology

The area falls in the grey colour code of the SAHRIS Palaeo-sensitivity map. No palaeontological study is required.

### 6.2 Stone Age remains

No Stone Age material was detected within the project area.

### 6.3 Iron Age

No Iron Age material was detected within the project area.

### 6.4 Graves and burials

No graves or burial sites were detected within the project area.

### 6.5 The built environment

No historical structures exist within the project area. The Airport Africa Lodge complex will not be affected. The residential dwelling is younger than 60 years as are the stock pens and ruined abattoir structures. These are not regarded as significant.

### 6.6 Public monuments and memorials

A public monument erected to commemorate the 'Great Trek' of Louis Trichardt's group that passed the area in 1837 is situated about 400 meters to the west of the project area along the R101 (Figure 3). The proposed project will not impact on the monument.

## 7. EVALUATION AND STATEMENT OF SIGNIFICANCE

The proposed demarcation of sites in on PTN 11 of the farm Tweefontein 915LS will have no effect on heritage resources.

### 7.1 Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.

Significance		Rating
1.	The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)	None
2.	Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).	None
3.	Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance)	None
4.	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects (Scientific significance)	None
5.	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)	None
6.	Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)	None
7.	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (Social significance)	None
8.	Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)	None
9.	The significance of the site relating to the history of slavery in South Africa.	None

**7.2 Section 38(3) (c) An assessment of the impact of the development on such heritage resources.**

The development will have no effect on heritage remains.

**7.3 Section 38(3) (d) An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development.**

No heritage resources were detected within the project area.

**7.4 Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources.**

No impact on community heritage resources.

**7.5 Section 38(3)(f) If heritage resources will be adversely affected by the proposed development the consideration of alternatives.**

No heritage resources will be adversely affected.

**7.6 Section 38(3)(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.**

No mitigation measures are proposed.

## **8. DISCUSSION**

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No heritage remains were noted in the project area. The entire area had been ploughed in the past. Had there been any cultural heritage remains, such objects, fragments or features would have been visible on the surface because subterranean material would have been exposed by the ploughing.

From a heritage management perspective, there is no reason why the proposed development may not continue.

## **9. RECOMMENDATIONS**

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No mitigation measures are recommended for the proposed development.

## **10. REFERENCES**

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Deacon, HJ and Deacon, J. 1999. Human Beginnings in South Africa. *Uncovering the Secrets of the Stone Age*. David Philip Publishers. Cape Town & Johannesburg.

Huffman, TN. 2007. *Handbook to the Iron Age. The archaeology of Pre-colonial Farming Societies in Southern Africa*. University of KwaZulu-Natal Press.

## 11. IMAGES AND IMAGES

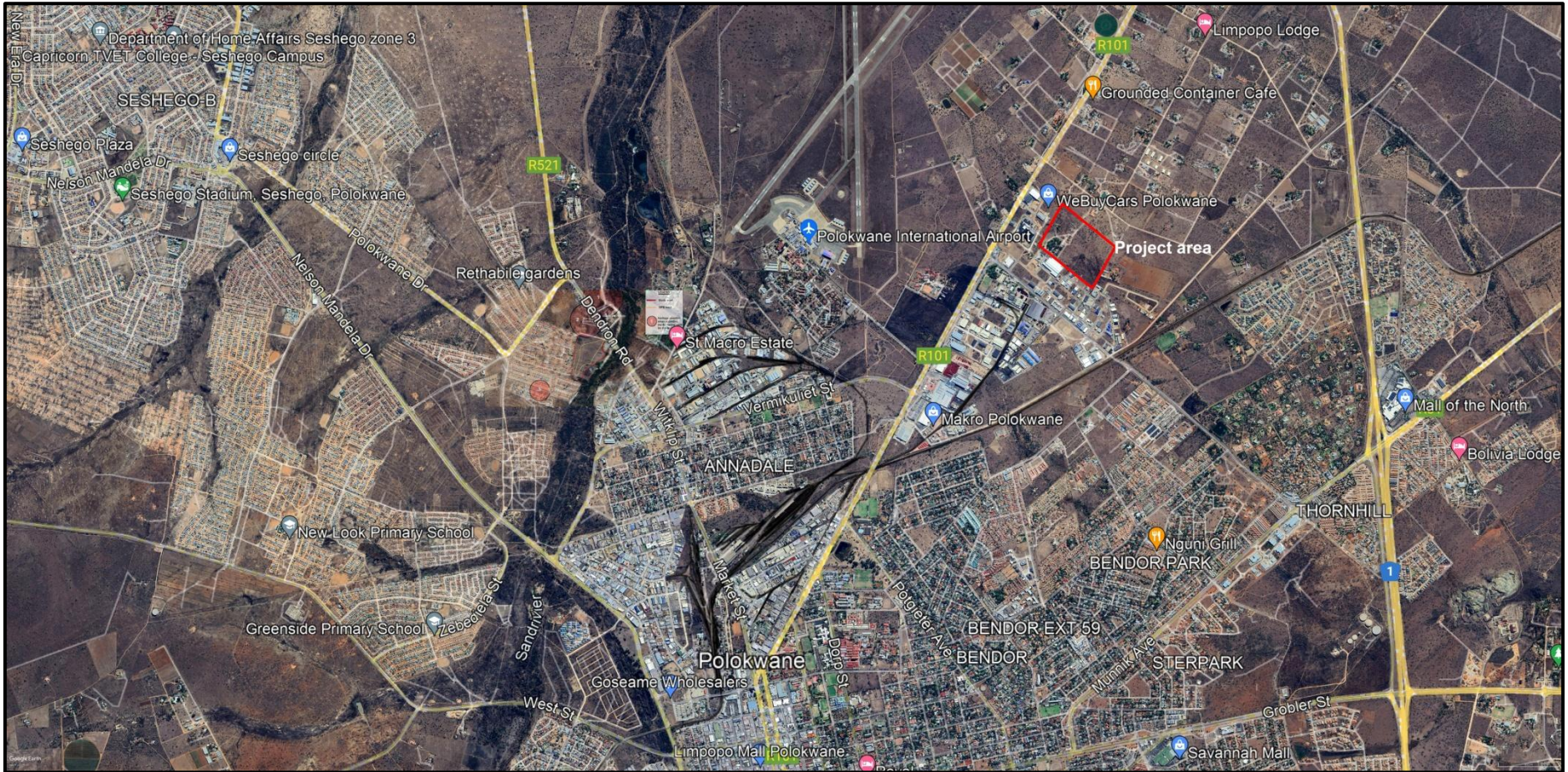


Figure 1. Google earth image of the project area in relation to Polokwane.

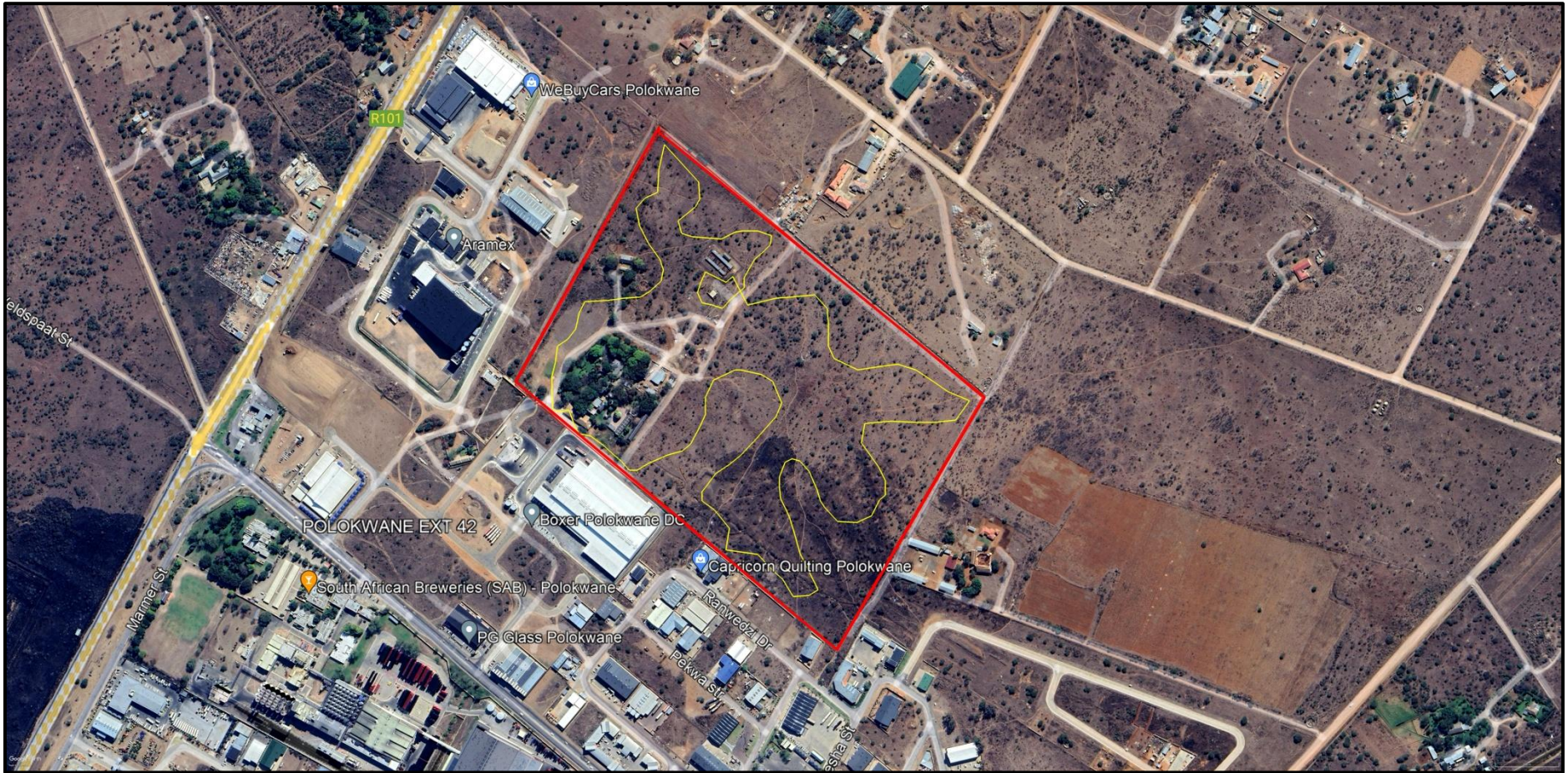


Figure 2. Google earth image of the project area with GPS tracking – note the Lodge in the left bottom side and the bordering industrial complex.

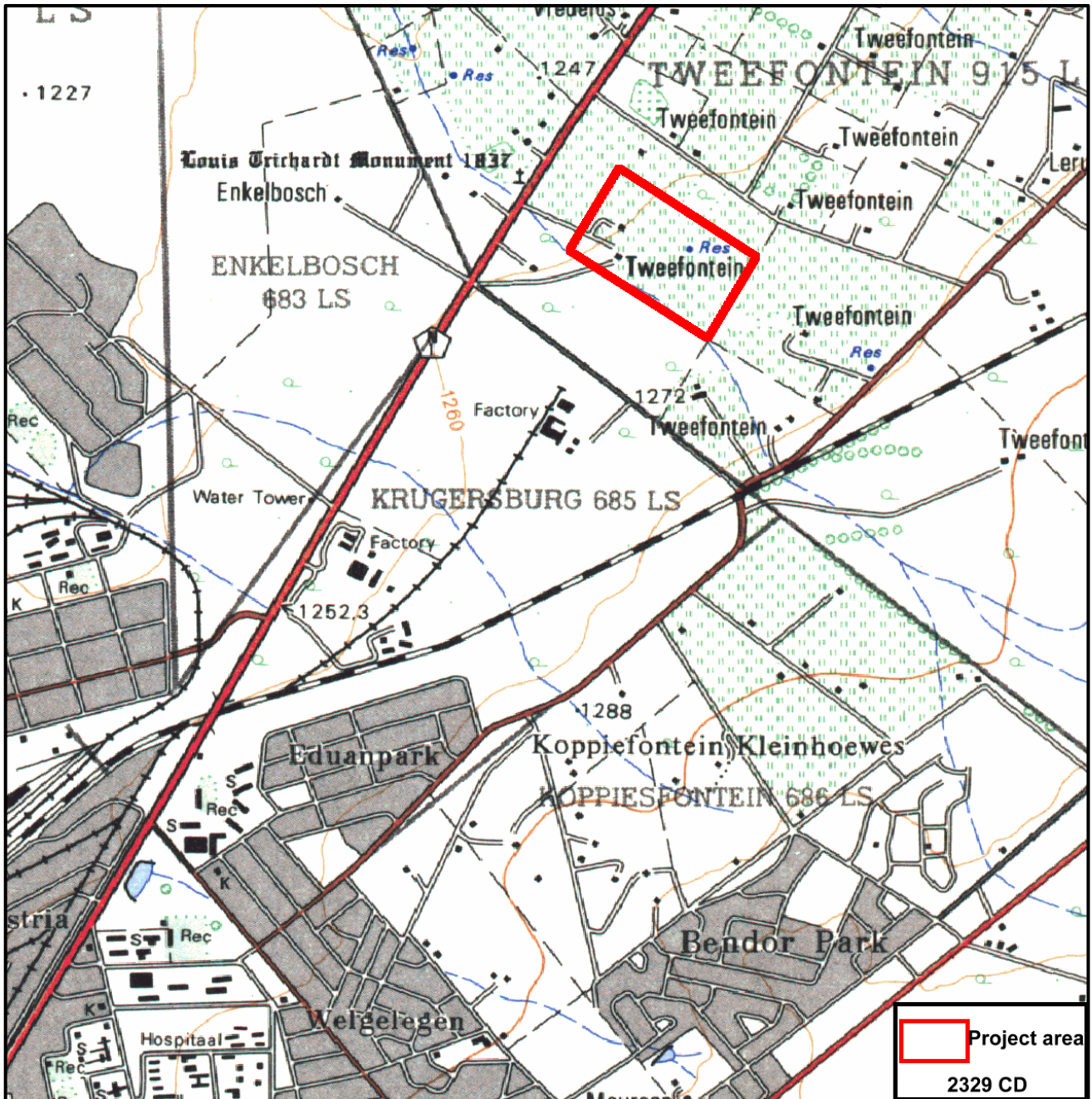


Figure 3. Topographical map showing the area ploughed in the past.



Figure 4. General view of the terrain – easterly direction.



Figure 5. View of the residential dwelling on the property.





Figure 6. View of the stock pen.



Figure 7. View of inside the stock pen.



Figure 8. View of the loading structures at the stock pen.



Figure 9. View of a reservoir – the opposite side has collapsed.



Figure 10. View of the northern boundary of portion 11.



Figure 11. View of some of the rubble dumping.