# Cultural Heritage Assessment of the Proposed Granite Prospecting Right Application by Moloi Granite on Various Portions on the Farm Hartebeestpoort 410JQ near Brits, Brits Magisterial District, Madibeng Local Municipality, Bojanala District Municipality, North West Province

For

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## Executive Summary

This report contains a comprehensive heritage impact assessment investigation in accordance with the provisions of Sections 38(1) and 38(3) of the *National Heritage Resources Act* (Act No. 25 of 1999) and focuses on the survey results from a cultural heritage survey as requested by Jomela Consulting (Pty) Ltd. The survey forms part of an Environmental Impact Assessment (EIA) prospecting application for Moloi Granite (Pty) Ltd and is made in terms of the National Environmental Management Act (Act 107 of 1998).

During the survey a Late Iron Age stone-walled settlement (Site 1) with two associated cattle outposts (Sites 2 and 3) were recorded. The sites probably functioned as part of network of settlement during a period of upheaval known as the Difaqane. Sites associated with this period date to the early AD 1830s and were probably associated with the Bakwena ba Mogopa. They were probably hiding with their cattle in the mountains as preventative measure from being raided by Mzilikazi's warriors.

| Site No | Site Type | Statement of Significance | Impact | Proposed Mitigation |
|---|---|---|---|---|
| 1 | Difaqane (Tswana) settlement | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |
| 2 | Difaqane (Tswana) cattle outpost | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |
| 3 | Difaqane (Tswana) cattle outpost | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |

Please note that no historical or Stone Age settlements, structures, features, assemblages or artefacts were recorded during the survey. Also, no graveyards or individual graves were recorded.

Based on the assessment, from a heritage perspective, it is recommended that a Phase 2 investigation must be conducted on the Iron Age Stone-walled sites (Site 1, 2 and 3) as they must be surveyed and mapped before a destruction permit can be applied for from SAHRA.

However, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

### Definitions and abbreviations

Midden: Refuse that accumulates in a concentrated heap.
Stone Age: An archaeological term used to define a period of stone tool use and manufacture
Iron Age: An archaeological term used to define a period associated with domesticated livestock and grains, metal working and ceramic manufacture
NHRA: National Heritage Resources Act (Act No. 25 of 1999)
SAHRA: South African Heritage Resources Agency
SAHRIS: South African Heritage Resources Information System

| | |
|---|---|
| PHRA-G: | Provincial Heritage Resources Authority - Gauteng |
| GDARD: | Gauteng Department of Agriculture and Rural Development |
| HIA: | Heritage Impact Assessment |
| DMR: | Department of Mineral Resources |

I, Francois Coetzee, hereby confirm my independence as a cultural heritage specialist and declare that I do not have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of the listed environmental processes, other than fair remuneration for work performed on this project.

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## 1. Introduction

Moloi Granite (Pty) Ltd has appointed Jomela Consulting (Pty) Ltd, an independent consulting company, to conduct an Environmental Impact Assessment (EIA) to evaluate the potential environmental and social impacts of the proposed granite prospecting right with a bulk sampling application. The application area comprises Portions 1170, 1171, 1172, 1173, 1174 and 1175 of the farm Hartebeestpoort 410JQ, covering approximately 154 Hectares. The farm portions are situated in the Brits Magisterial District, in the Madibeng Local Municipality, Bojanala District Municipality, North West Province.

In terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1997), in addition to the prospecting right application submitted to the DMR an Environmental Authorisation has been applied for. This will include the prospecting area, prospecting activities and associated surface infrastructure.

A prospecting right application was firstly lodged and the an application for Environmental Authorisation in term of Section 16 of the NEMA EIA 2014 regulations was re-submitted to the DMR on 8 April 2016 for upscaling. A Basic Assessment (BA) was initially applied for but has been up-scaled to a full EIA due to the bulk sampling noted in the prospecting works program. The report has been designed to meet the requirements for conducting an Environmental Impact Assessment (EIA) and Environmental Management Programme (EMPR) as stipulated in the Regulations contained in both the Mineral and Petroleum Resources Development Act (MPRDA) (Act No. 28 of 2002) and National Environmental Management Act (EIA regulations of 4 Dec 2014) respectively.

This cultural heritage survey forms part of this Environmental Impact Assessment (EIA) application process.

## 2. Objectives

The general objective of the cultural heritage survey is to record and document cultural heritage remains consisting of both tangible and intangible archaeological and historical artefacts, structures (including graves), settlements and oral traditions of cultural significance.

As such the terms of reference of this survey are as follows:

- Identify and provide a detailed description of all artefacts, assemblages, settlements and structures of an archaeological or historical nature (cultural heritage sites) located on the study area,
- Estimate the level of significance/importance of these remains in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value,
- Assess any impact on the archaeological and historical remains within the area emanating from the development activities, and
- Propose possible mitigation measures which will limit or prevent any further impact.

## 3. Study Area

The heritage survey focussed on the area expanding westwards of the existing Moloi Granite (Pty) Ltd operations. The survey area is situation on Portions 1170, 1171, 1172, 1173, 1174

and 1175 of the farm Hartebeestpoort B 410JQ, located north-west of Brits, in the Madibeng Local Municipality, Bojanala District Municipality, North West Province.

The survey area falls within the Savanna Biome, particularly the Central Bushveld Bioregion and specifically the Norite Koppies Bushveld (Mucina & Rutherford 2006). In general the area is dominated by the Kareepoortberg Mountain which is surrounded by agricultural fields and the main water canal providing water to the lower-lying areas. The geology is made up of gabbro, hyperite and norite of the Bushveld Igneous Complex. Some syenite, gabbro and diabase dykes occur sporadically in the area. The Kareespruit River runs north-south further to the west of the survey area. Infrastructure consists of several dirt roads that provide access to the area, power lines, fences, farm houses and structures and mining activities on the mountain. The R510 road is located further to the east and runs through Brits located approximately 5 km from the site.

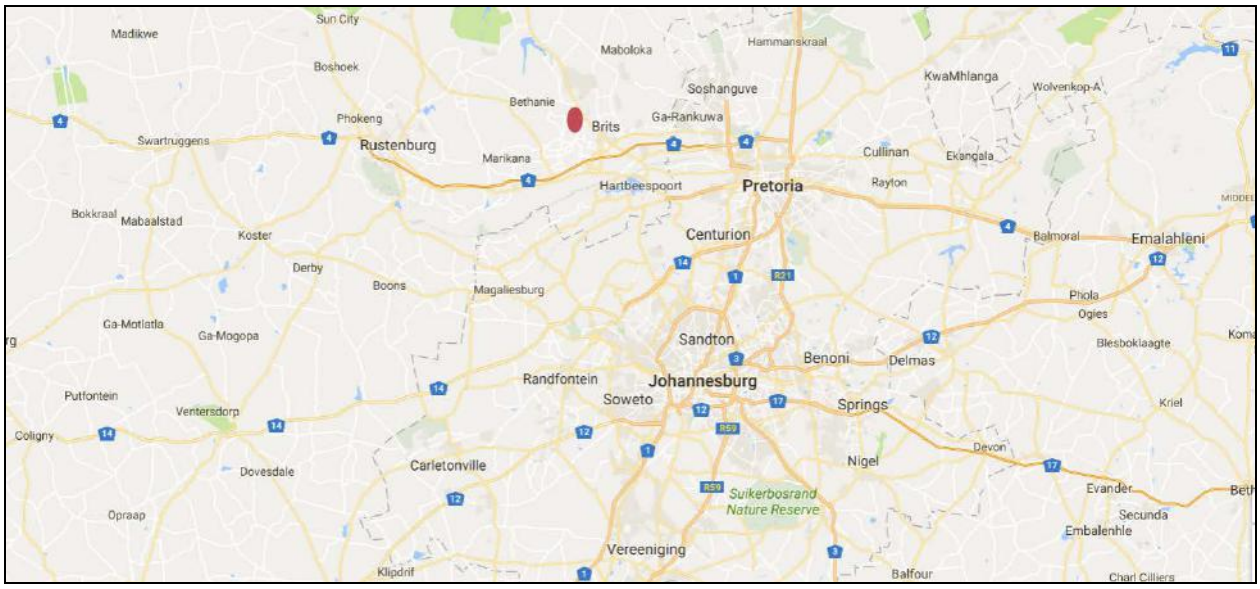

**Figure 1: Regional context of the survey area west of Brits (indicated by the red area)**

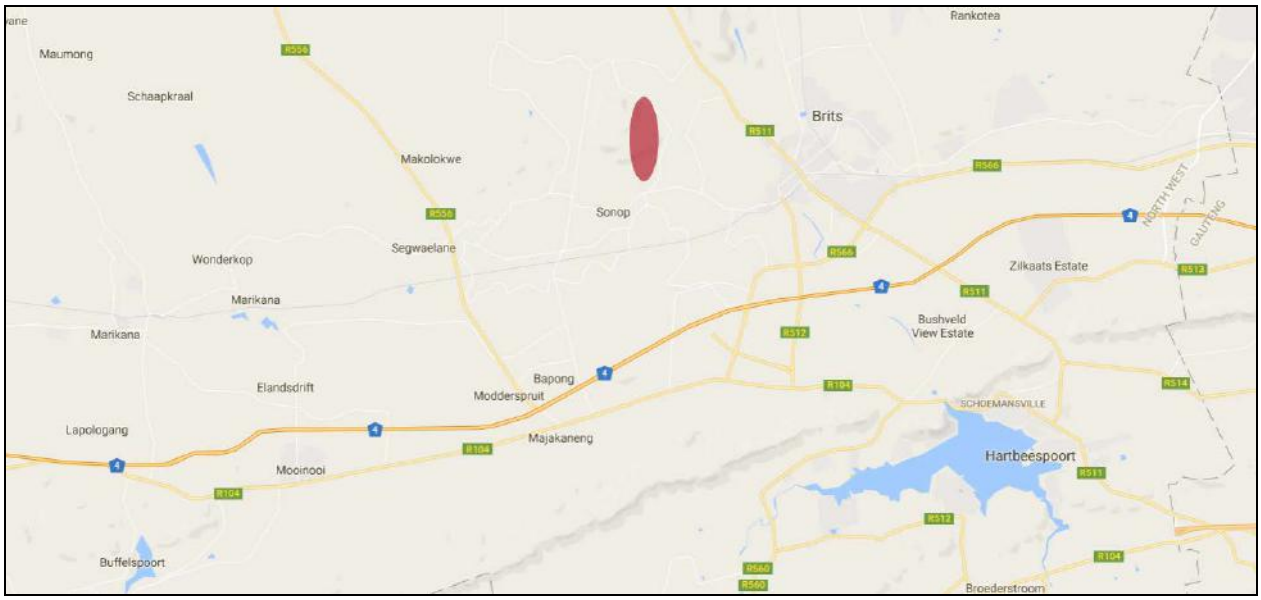

**Figure 2: Local context of the survey area west of Brits**


**Figure 3: The survey area on Kareepoortberg Mountain as indicated on Google Earth (2016)**


**Figure 4: Detail of survey area as indicated on Google Earth (2016)**

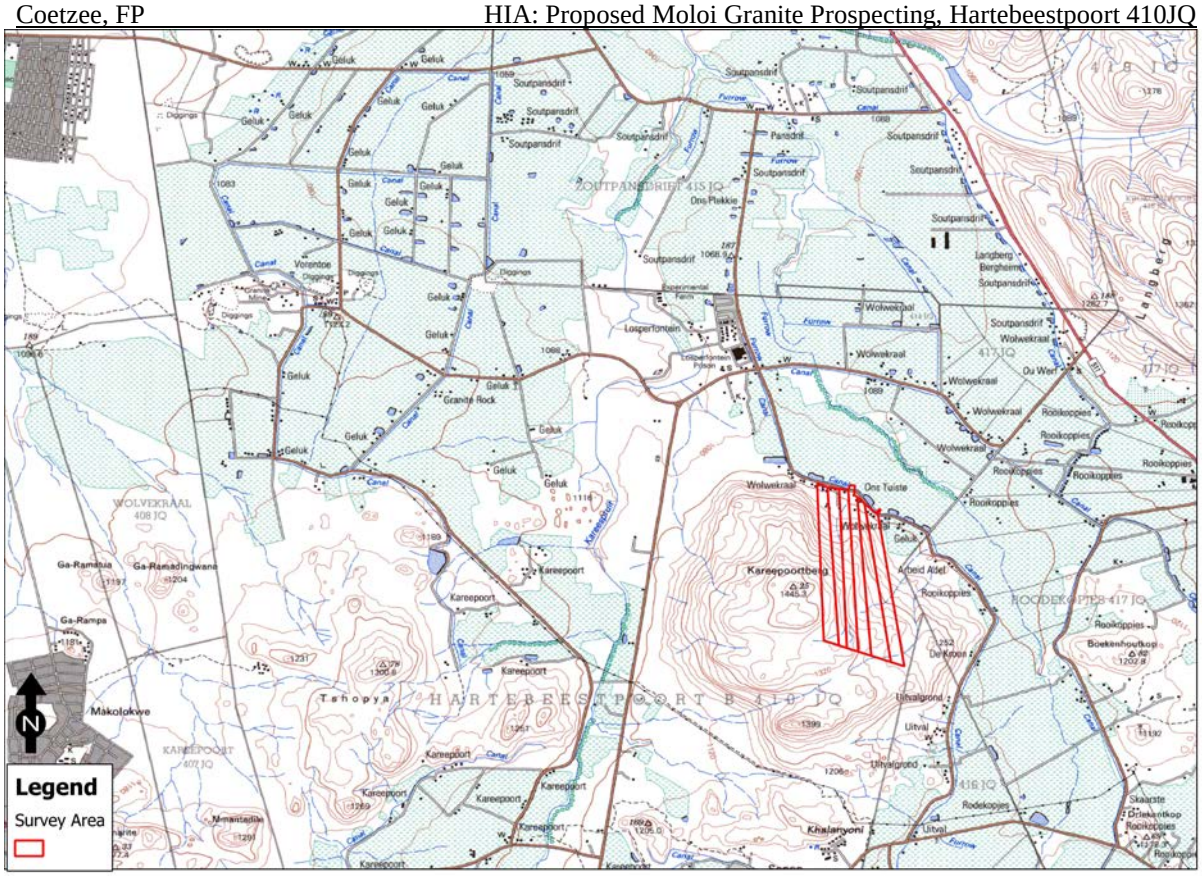


**Figure 5: General location of the survey area as indicated on the 1:50 000 topographic map 2527DA**

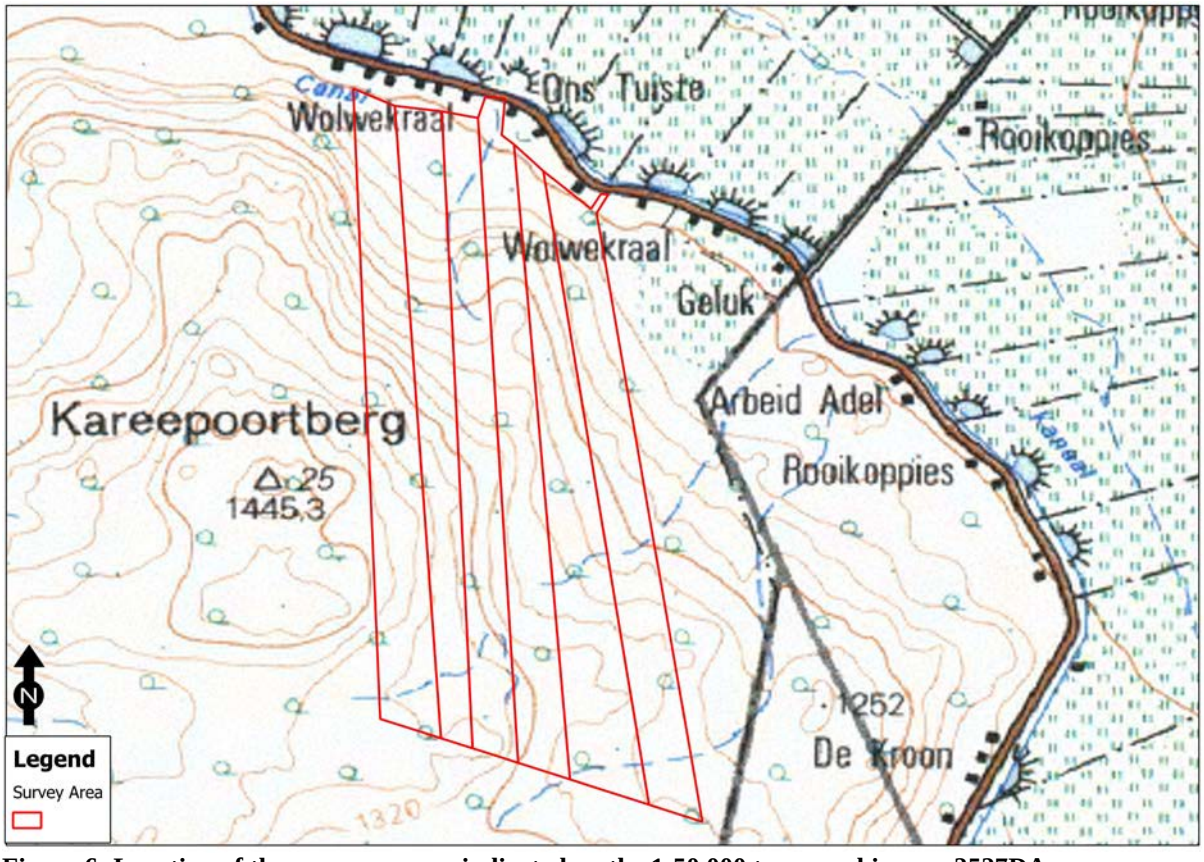


**Figure 6: Location of the survey area as indicated on the 1:50 000 topographic map 2527DA**

**Figure 7: General view of the existing quarry with the survey area in the background**

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**Figure 10: Power lines traverse the Kareepoort Mountain and a servitude, which was cleared**

**Figure 11: General view along the trajectory of the survey area along the mountain range (looking north)**

**Figure 12: View of the southern rocky outcrops near the northern extend of the survey area**

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**Figure 14: View of the slopes at the north western section of the survey area**

**Figure 15: Old access road up the Kareepoortberg Mountain, now an erosion donga**

**Figure 16: General view of the south western section of the survey area**

## 4. Proposed Project Activities

The proposed granite prospecting will entail non-invasive and invasive activities.

Invasive activities will include Block Cutting which will include:

- Cutting the blocks and moving them to the dress area below the mountain;
- Cutting and squaring-off the blocks;
- Blocks are inspected for quality control; and
- Blocks are moved to the stockyard and measured.

Detailed activities for invasive prospecting consist of the following:

- Geological core boreholes will be drilled on predetermined positions
- Borehole cores will be logged, sampled and analysed
- Concurrent and immediate Bulk Sampling and or removal and disposal of minerals found during prospecting phase for marketing, selling and testing of the market locally and internationally
- Should pre-feasibility study indicate a potentially viable proposition, an additional twenty ecological exploration boreholes will drilled, logged and analysed
- Immediate bulk sampling and logging
- Removal and disposal of Bulk Sampling Feasibility test and Marketing of the blocks in the local and the international market
- In the process bulk sampling will progress with removal and disposal of blocks to run concurrently with other process to speed up the investigation of market acceptance of the material
- Concurrent and immediate sulk sampling and or removal and disposal of minerals found during prospecting phase for marketing, selling and testing of the market locally and internationally
- This process entails removal and disposal of blocks to our own account as we extensively engage the market to determine viability and acceptance of the blocks in local and international market

- The disposed bulk sampled blocks will be sent to customers to determine the satisfaction with quality
- Once the results are positive, sales agreements will be concluded with customers for the long term sustainability of the prospective quarry if prospecting will result in a viable project

The minerals that will be mined include both granite and dimension stone.

Operational aspects will include no permanent services in terms of water supply, electricity, or sewer age facilities are required. Moloi Granite intends to make use of standard prospecting methods that enable safe prospecting which has the having the lowest risk of causing health risks or environmental degradation. Site activities as it relates to exploratory drilling and bulk sampling will comprise the establishment of the drill pad (drill pad clearing and compaction), drilling operations (drill maintenance, refuelling, core extraction and core storage) and rehabilitation activities (drill pad ripping and re-vegetation). No feasible alternative to the proposed exploratory drill methods currently exists. Impact associated with the drilling operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

Should the results of drilling prove positive, the next phase is to conduct bulk sampling to remove several blocks in order to test market acceptance. The number of blocks required will depend on the marketing strategy and whether or not the prospector has access to a factory which can cut slabs of the material. In general, most non-vertically integrated companies will need to remove around twenty blocks for distribution into the market, while a vertically integrated company may get away with as few as two blocks, as it is able to distribute slabs into the world market in order to evaluate response to the material.

## 5. Legal Framework

- Section 38 of the NHRA (Act No. 25 of 1999) stipulates that the following activities trigger a heritage survey:
  - the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
  - the construction of a bridge or similar structure exceeding 50 m in length;
  - any development or other activity which will change the character of a site—
    (i) exceeding 5 000 $m^2$ in extent; or
    (ii) involving three or more existing erven or subdivisions thereof; or
    (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
    (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
  - the re-zoning of a site exceeding 10 000 $m^2$ in extent; or
  - any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

- Archaeological remains can be defined as human-made objects, which reflect past ways of life, deposited on or in the ground.

- Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and they are valuable, finite, non-renewable and irreplaceable.

- All archaeological remains, features, structures and artefacts older than 100 years and historic structures older than 60 years are protected by the relevant legislation, in this case the **National Heritage Resources Act (NHRA) (Act No. 25 of 1999, Section 34 & 35)**. The Act makes an archaeological impact assessment as part of an EIA and EMPR mandatory (see **Section 38**). No archaeological artefact, assemblage or settlement (site) may be moved or destroyed without the necessary approval from the **South African Heritage Resources Agency (SAHRA)**. Full cognisance is taken of this Act in making recommendations in this report.

- Cognisance will also be taken of the **Mineral and Petroleum Resources Development Act (Act No 28 of 2002)** and the **National Environmental Management Act (Act No 107 of 1998)** when making any recommendations.

- Human remains older than 60 years are protected by the **NHRA**, with reference to **Section 36**. Human remains that are less than 60 years old are protected by the Regulations Relating to the Management of Human Remains (GNR 363 of 22 May 2013) made in terms of the National Health Act No. 61 of 2003 as well as local Ordinances and regulations.

- **Mitigation guidelines (The significance of the site):**

Rating the significance of the impact on a historical or archaeological site is linked to the significance of the site itself. If the significance of the site is rated high, the significance of the impact will also result in a high rating. The same rule applies if the significance rating of the site is low (also see Table 1).

| Significance Rating | Action |
|---|---|
| Not protected | 1. None |
| Low | 2a. Recording and documentation (Phase 1) of site adequate; no further action required |
| | 2b. Controlled sampling (shovel test pits, augering), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction |
| Medium | 3. Excavation of representative sample, $^{14}C$ dating, mapping and documentation (Phase 2 investigation); permit required for sampling and destruction [including 2a & 2b] |
| High | 4a. Nomination for listing on Heritage Register (National, Provincial or Local) (Phase 2 & 3 investigation); site management plan; permit required if utilised for education or tourism<br>4b. Graves: Locate demonstrable descendants through social consulting; obtain permits from applicable legislation, ordinances and regional by-laws; exhumation and reinterment |

| | |
|---|---|
| | [including 2a, 2b & 3] |

**Table 1: Rating the significance of sites**

- With reference to the evaluation of sites, the certainty of prediction is definite, unless stated otherwise.

- The guidelines as provided by the **NHRA (Act No. 25 of 1999)** in Section 3, with special reference to subsection 3, and the Australian ICOMOS (International Council on Monuments and Sites) Charter (also known as the Burra Charter) are used when determining the cultural significance or other special value of archaeological or historical sites.

- It should be kept in mind that archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

- A copy of this report will be lodged with the **SAHRA** as stipulated by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), Section 38 (especially subsection 4) and the relevant Provincial Heritage Resources Authority (PHRA).

- Note that the final decision for the approval of permits, or the removal or destruction of sites, structures and artefacts identified in this report, rests with the SAHRA (or relevant PHRA).

## 6. Study Approach/Methods

Regional maps and other geographical information (ESRI shapefiles) were supplied by Jomela Consulting. The most up-to-date Google Earth images and topographic maps were used to indicate the survey area. The survey area is localised on the 1:50 000 topographic map 2527DA. Please note that all maps are orientated with north facing upwards (unless stated otherwise, note some Google Earth maps).

The strategy during this survey was to survey all the areas associated with the development in detail. However the area is characterised by extremely rough terrain, coupled with severe slopes. As a result an intuitive pedestrian survey strategy had to be adopted, focussing on flat areas and foothills where sites are known to occur.

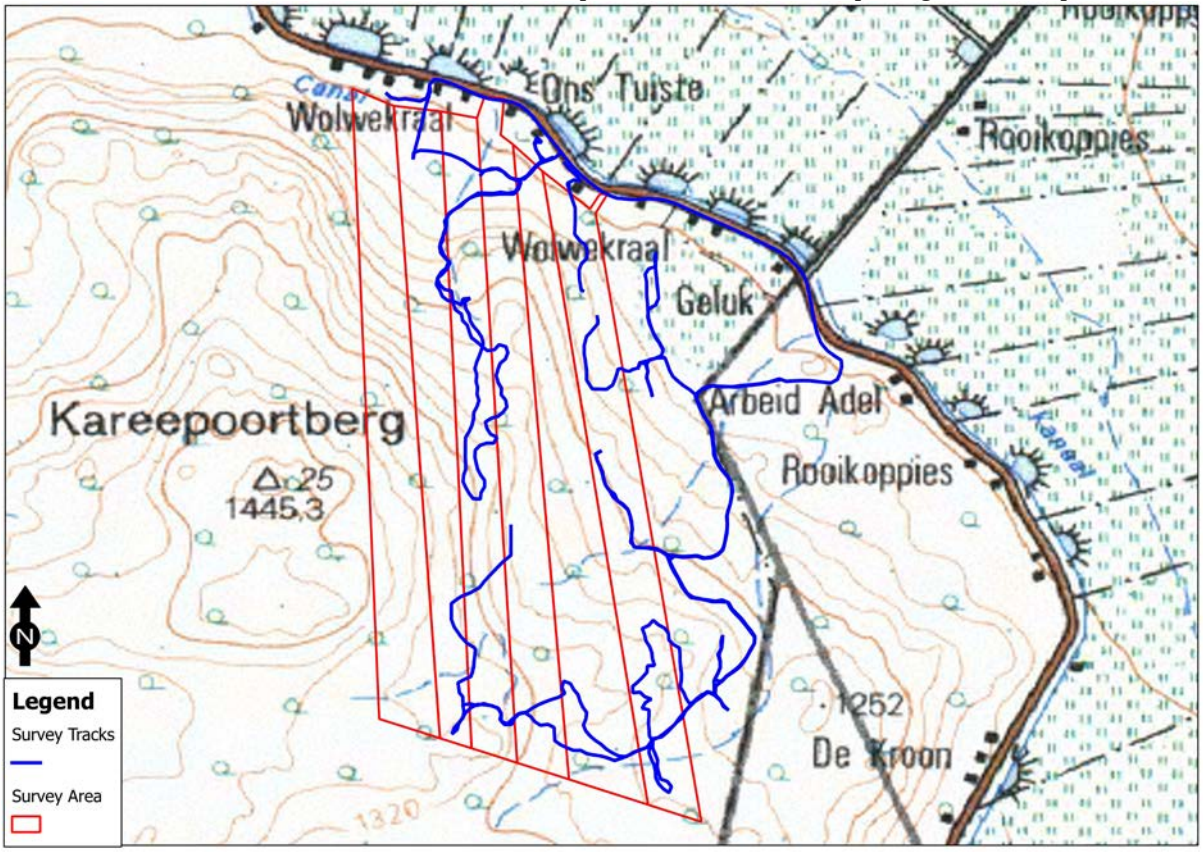


**Figure 17: Recorded survey tracks for the project**

## 6.1 Review of existing information/data

Additional information on the cultural heritage of the area was sourced from the following records:

- National Mapping Project by SAHRA (which lists heritage impact assessment reports submitted for South Africa);
- Online SAHRIS database;
- Maps and information documents supplied by the client; and
- Several surveys have been conducted in the region (published and unpublished material on the area) by the National Cultural History Museum (1997), Pistorius 2000, Helio Alliance (with Coetzee) (2003).

Several cultural heritage surveys were conducted in the general region around and on the Kareepoortberg Mountains. Several Late Iron Age (LIA) stone-walled settlements associated with Tswana-speaking groups have been recorded, especially further to the west. The dominant groups in the area are the Bakgatla baga Makau and Bakwena ba Mogopa.

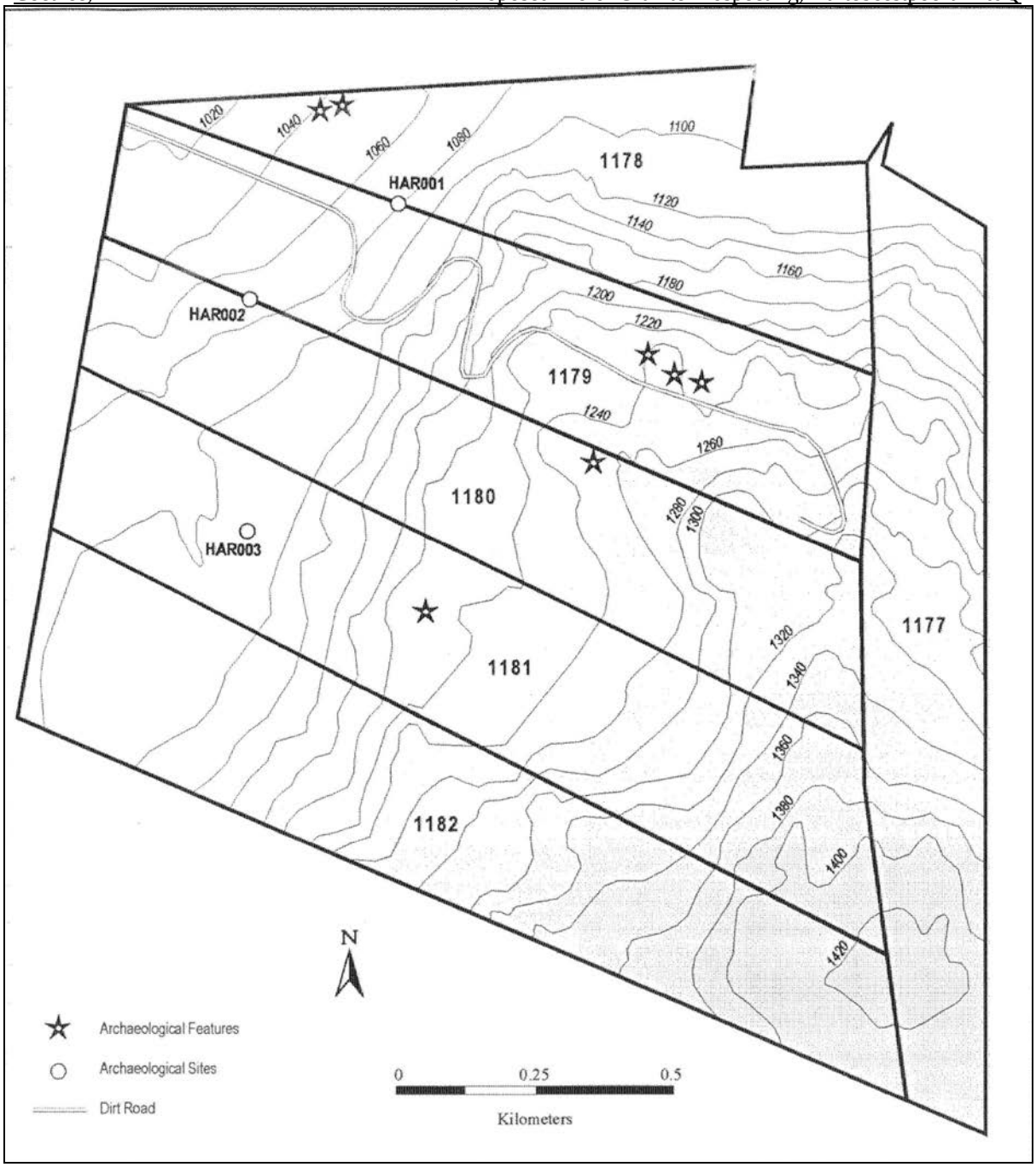


**Figure 18: Several Late Iron Age settlements recorded on the western slope of Kareepoortberg Mountain Range (see Pistorius 2000) [situated to the west of the current survey area]**

According to the Surveyor General's database the farm Hartebeestpoort B 410 JQ was originally surveyed in 1926 and incorporated several farms (see Addendum 3).

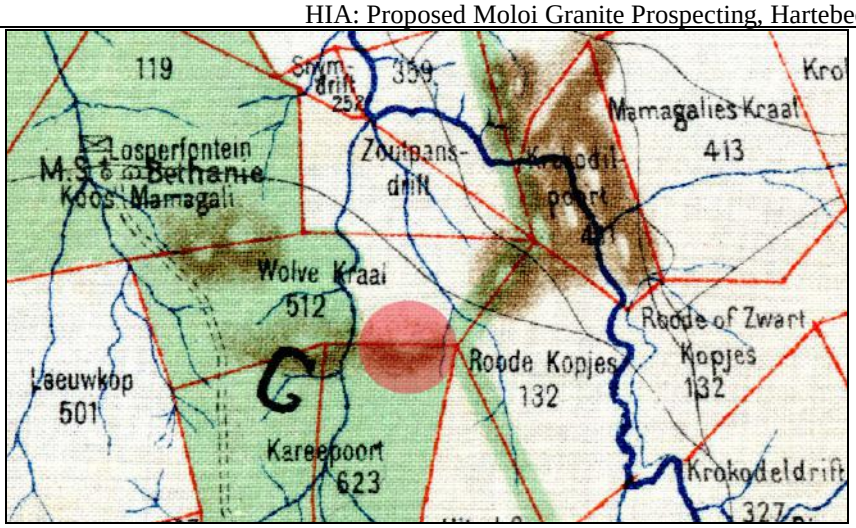


**Figure 19: Jeppe's Map dating to 1899 clearly indicates that the new boundary of the farm Hartebeestpoort B 410JQ does not correspond to the older farms. It was surveyed in 1926 and incorporated various sections of older farms**

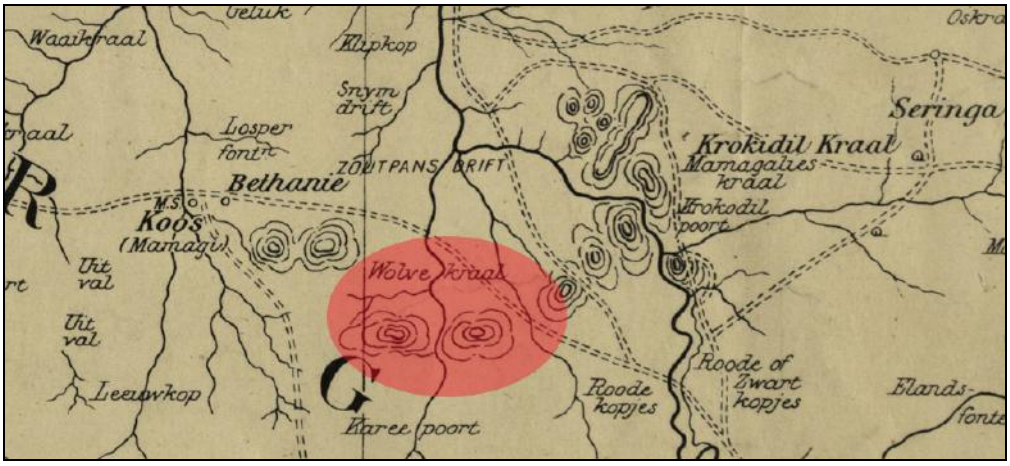


**Figure 20: War Office Map indicating the location of the survey area as it was in 1900**

## 6.2 Site visits

The field surveys were conducted on 14 and 31 August 2016.

## 6.3 Impact assessment

The criteria used to describe heritage resources and to provide a significance rating of recorded sites are listed in the NHRA (Act No. 25 of 1999) specifically Section 7(7) and Section 38. SAHRA also published various regulations including: Minimum standards: Archaeological and palaeontological components of impact assessment reports in 2006 and updated requirements in 2012.

## 6.4 Assumptions, restrictions and gaps in knowledge

No severe physical restrictions were encountered as the survey area was fairly accessible. The area is however extremely mountainous and not all areas were covered due to the extreme slope in places. Rocky outcrops were specifically targeted as settlements are usually associated with these landscape features.

## 7. Description and Evaluation of Cultural Heritage Sites

Generally, the Late Iron Age stone-walled settlements in the area north of Brits are mostly associated with the Tswana-speaking people specifically the Bakwena ba Mogopa. Several sites are known to occur to the west of the survey area. However, no Stone Age artefacts were noted that could represent substantial manufacturing/knapping sites with at least a low density concentration, in the survey area.

During the survey three Late Iron Age stone-walled sites were recorded (Sites 1, 2 and 3) which are probably associated with the Bakwena ba Mogopa and possibly occupied during the Difaqane, a period of upheaval during the early AD 1830s. No other historical structures or graves were recorded (for more details see Addendum 2).

Archaeological sites are mostly situated in close proximity to water. The annual rainfall of the region ranges between 700 - 800 mm with a moderate climate during both summer and winter months. Recent climatic research indicates that between AD 900 - AD 1295 southern Africa experienced a 'Warm Epoch' with generally hotter and wetter conditions than today. Between AD 1295 - AD 1780 the region experienced a so-called 'Little Ice Age' with generally colder and drier conditions, although the period between AD 1425 and AD 1675 was generally warm and wet (*cf*. Tyson 1992). As a result, past conditions in the area probably were, at times, even more favourable for grain cultivation (e.g. sorghum, millet and various types of beans) than today.

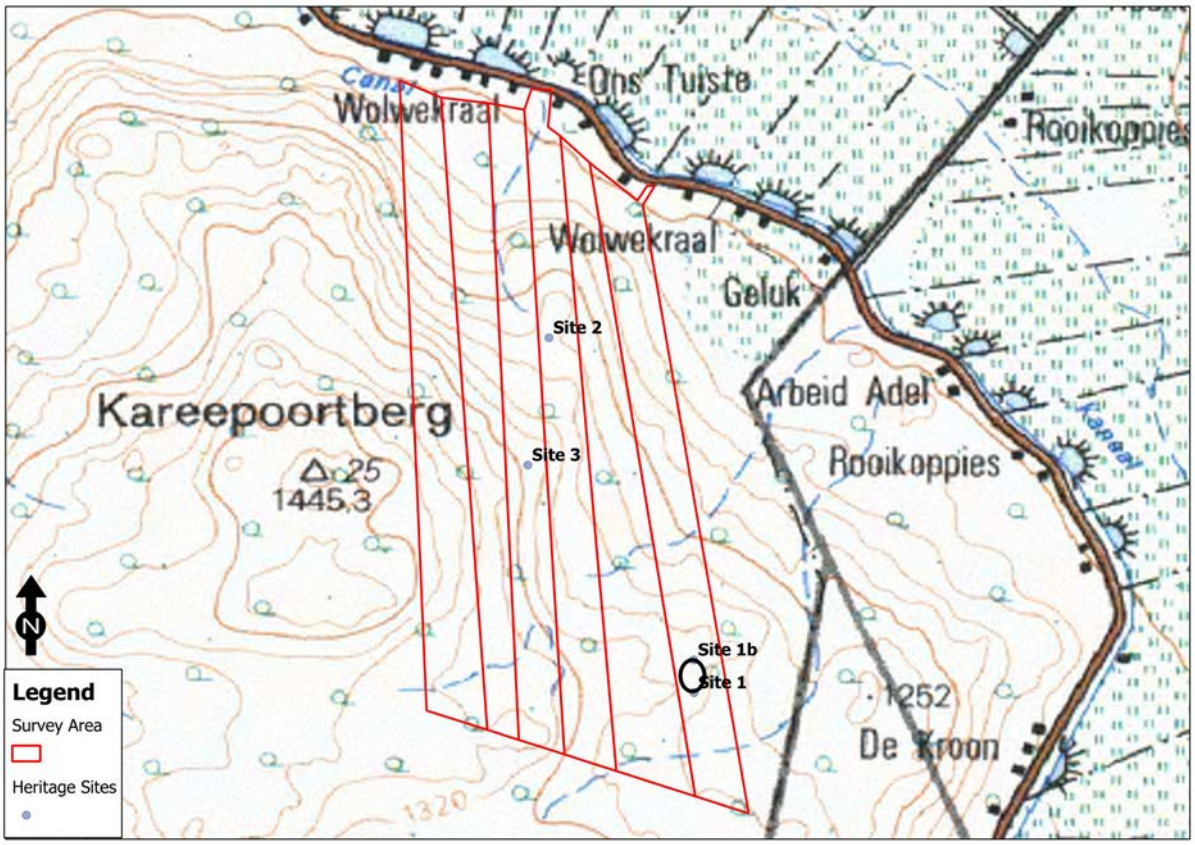


**Figure 16: The location of the recorded cultural heritage site within the survey area**

## 8. Locations and Evaluation of Sites

| Site No | Coordinates | Site Type | Statement of Significance | Impact | Proposed Mitigation |
|---|---|---|---|---|---|
| 1 | 25.617906°S 27.713255°E 25.616974°S 27.713246°E | Difaqane (Tswana) settlement | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |
| 2 | 25.607811°S 27.709128°E | Difaqane (Tswana) cattle outpost | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |
| 3 | 25.611434°S 27.708526°E | Difaqane (Tswana) cattle outpost | Generally protected B: Medium significance | Destruction | • Phase 2 Survey and Map<br>• Destruction permit SAHRA |

## 9. Recommendations and Conclusions

During the survey a Late Iron Age stone-walled settlement (Site 1) with two associated cattle outposts (Sites 2 and 3) were recorded. The sites probably functioned as part of network of settlement during a period of upheaval known as the Difaqane. Sites associated with this period date to the early AD 1830s and were probably associated with the Bekwena ba Mogopa. They were probably hiding with their cattle in the mountains as preventative measure from being raided by Mzilikazi's warriors.

Please note that no historical or Stone Age settlements, structures, features, assemblages or artefacts were recorded during the survey. Also, no graveyards or individual graves were recorded.

Based on the assessment, from a heritage perspective, it is recommended that a Phase 2 investigation must be conducted on the Iron Age Stone-walled sites (Site 1, 2 and 3) as they must be surveyed and mapped before a destruction permit can be applied for from SAHRA.

However, please note:

Archaeological deposits usually occur below ground level. Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and a university or museum notified in order for an investigation and evaluation of the find(s) to take place **(*cf*. NHRA (Act No. 25 of 1999)**, Section 36 (6)).

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## Addendum 1: Archaeological and Historical Sequence

The table provides a general overview of the chronological sequence of the archaeological periods in South Africa.

| PERIOD | APPROXIMATE DATE |
|---|---|
| Earlier Stone Age | More than c. 2 million years ago - c. 250 000 years ago |
| Middle Stone Age | c. 250 000 years ago – c. 25 000 years ago |
| Later Stone Age<br>(Includes San Rock Art) | c. 25 000 years ago - c. AD 200 (up to historic times in certain areas) |
| Early Iron Age | c. AD 200 - c. AD 900 |
| Middle Iron Age | c. AD 900 – c. AD 1300 |
| Late Iron Age<br>(Stonewalled sites) | c. AD 1300 - c. AD 1840<br>(c. AD 1640 - c. AD 1840) |

### Archaeological Context

### Stone Age Sequence

Concentrations of Early Stone Age (ESA) sites are usually present on the flood-plains of perennial rivers and may date to over 2 million years ago. These ESA open sites may contain scatters of stone tools and manufacturing debris and secondly, large concentrated deposits ranging from pebble tool choppers to core tools such as handaxes and cleavers. The earliest hominins who made these stone tools, probably not always actively hunted, instead relying on the opportunistic scavenging of meat from carnivore fill sites.

Middle Stone Age (MSA) sites also occur on flood plains, but are also associated with caves and rock shelters (overhangs). Sites usually consist of large concentrations of knapped stone flakes such as scrapers, points and blades and associated manufacturing debris. Tools may have been hafted but organic materials, such as those used in hafting, seldom preserve. Limited drive-hunting activities are also associated with this period.

Sites dating to the Later Stone Age (LSA) are better preserved in rock shelters, although open sites with scatters of mainly stone tools can occur. Well-protected deposits in shelters allow for stable conditions that result in the preservation of organic materials such as wood, bone, hearths, ostrich eggshell beads and even bedding material. By using San (Bushman) ethnographic data a better understanding of this period is possible. South African rock art is also associated with the LSA.

**Iron Age Sequence**

In the northern regions of South Africa at least three settlement phases have been distinguished for early prehistoric agropastoralist settlements during the **Early Iron Age** (EIA). Diagnostic pottery assemblages can be used to infer group identities and to trace movements across the landscape. The first phase of the Early Iron Age, known as **Happy Rest** (named after the site where the ceramics were first identified), is representative of the Western Stream of migrations, and dates to AD 400 - AD 600. The second phase of **Diamant** is dated to AD 600 - AD 900 and was first recognized at the eponymous site of Diamant in the western Waterberg. The third phase, characterised by herringbone-decorated pottery of the **Eiland** tradition, is regarded as the final expression of the Early Iron Age (EIA) and occurs over large parts of the North West Province, Northern Province, Gauteng and Mpumalanga. This phase has been dated to about AD 900 - AD 1200. These sites are usually located on low-lying spurs close to water.

The **Late Iron Age** (LIA) settlements are characterised by sites without stone walls (Early Moloko settlements such as Icon (AD 1350 – 1500) and stone-walled sites such as Madikwe (AD 1500 – 1700) and Buispoort (AD 1700 – 1800) situated on defensive hilltops. This occupation phase has been linked to the arrival of ancestral Tswana speakers and in the northern regions of South Africa with associated sites dating between the sixteenth and seventeenth centuries AD. The terminal LIA is represented by late 18th/early 19$^{th}$ century settlements with multichrome Moloko pottery commonly attributed to the Sotho-Tswana. These settlements can in many instances be correlated with oral traditions on population movements during which African farming communities sought refuge in mountainous regions during the processes of disruption in the northern interior of South Africa, resulting from the so-called *difaqane* (or m*fecane*).

Sites that were identified during the survey are archaeological sites dated to the later (stone walled) phase of the Late Iron Age (c. AD 1640 - AD 1830s) also known as the Late Moloko. These sites all conform to a general settlement layout that forms part of a certain worldview. As such, the livestock enclosures are situated in the central area of a settlement. The court (kgotla) is also located in this central area and is associated with men (men are usually also buried here). The surrounding scalloped walling is where the houses are situated and is associated with women. This type of settlement layout is generally known as the Central Cattle Pattern (CCP).

By nature of the topography of the farm the archaeological sites are mostly situated on high laying plateau and foothills. All the stone walls are built with the dry-walling technique as no evidence was found that the surfaces were plastered with an agent (i.e. dagha (cattle dung mixed with mud)).

The Zwartkoppies Mountain range is well known for its high concentration of stone walled Late Iron Age settlements. Occupation is even traced back to the AD 1400s to a place in the area called Mabyanamatswana. On the farm Hoekfontein, situated to the west of the farm Klipfontein an archaeological impact assessment revealed an extensive Late Iron Age settlement. This investigation was prompted when multiple graves were exposed when excavations were done for a pipeline on the farm Hoekfontein. Mitigation measures (i.e. rescue exactions) are ongoing. It is important to note that intensive archaeological research has been conducted on a Late Iron Age settlement on the farm Klipfontein for the last few

years (i.e. Site 1). During this ongoing scientific research project several excavations have been completed and the site has also been surveyed.

## Ethno-historical Context

### *Difaqane (mfecane)*

The period of upheaval known as the Difaqane (Mfecane) had widespread implications for the northern interior of South Africa. Mzilikazi, one of the generals of King Shaka of the Zulu kingdom left KwaZulu-Natal in 1820 and took his Khumalo clan north-westward on a journey which changed the face of the South African interior. He first reached to Pedi people north of the Olifants and Steelpoort Rivers and took over their land. A year later and after a lengthy sojourn the group arrived at the slopes of the Magaliesberg Mountains in the Pretoria area in about 1827. Mzilikazi established two military kraal or capitals. The one was situated on the Apies River called enDinaneni which was situated north-west of Pretoria on the road to Hartebeespoort Dam and enKungweni which was built along the Daspoort range of hills.

His main residence was on the south side of Meintjieskop, but he later moved to the north of the Magaliesberg Mountains, to a place named emHlahlandlela. This aggressive occupation of the land forced the local Ndebele (Ndzundza) groups to scatter and hide in mountainous areas. Later during the 1830s Mzilikazi moved further west to establish a capital at Gabeni, north of Zeerust where he subjugated various Sotho Tswana groups in the area. His power was only challenged in 1837 by a combined Boer, Tswana and Griqua force. Mzilikazi later migrated into Zimbabwe and established his next capital, Bulawayo (Rasmussen 1977).

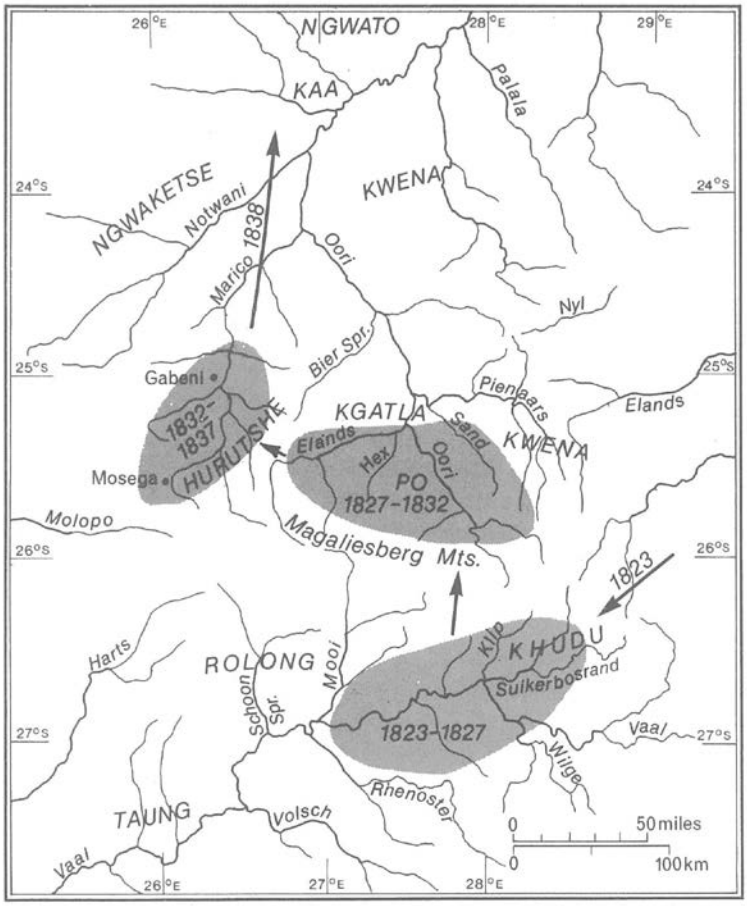


**Figure 21: The location of the major spheres of influence of Mzilikazi from the early 1820s to late 1830s**

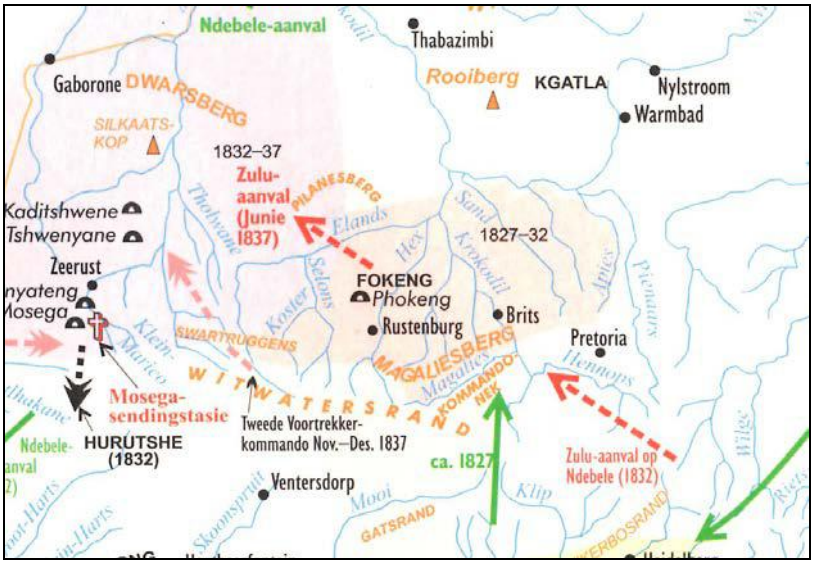


**Figure 22: Movement of Mzilikazi's wariors relative to the survey area north of Brits (after Bergh 1998)**

### *Tswana History*

The BaHurutshe – BaKwena – BaNgwaketse – BaNgwato Tswana groups have a very rich history and extensive genealogy of chiefs dating back to the AD 1400s. However, the aim of this report is to present a concise ethnohistorical framework for the Brits District with

specific emphasis on the mountainous regions (known as Mabjanamatswana) situated between Zwartkoppies (Bon Accord Dam) and Pilanesberg. As such, only the relevant groups (and their history) are pertinent to this investigation.

**Bakwena ba Mogopa**

The BaKwena consists of various subgroups of which the Mogopa (totem: crocodile) is only one. The earliest settlement recalled by the baMogopa is Rathateng (at the confluence of the Crocodile and Limpopo Rivers), from where they moved to Lokwadi (Zandrivierspoort 747) during the 17th century AD. The later resettled at Phalane mountains. During the 18th century AD they moved to the Mabjanamatswana mountain range to the north-east of Brits. They resettled west of the Pienaars River at Mangwatladi only to return to Mabjanamatswana before the end of the 18th century AD. Here they lived at Gwate (Mamogaleslaagte) at the foot of Thaba ya Morena.

During the period known as the Difagane (AD 1830s), Mizilikazi and his armies entered and subdued the region. After the initial conflict the group scattered in various directions with the core moving to Botswana, where they remained until 1868. The baMogopa then returned to Mathare (north-east of Brits), Mantabole (Bethanie) and Makolokwe (Wolwekraal) where they reside till today.

The Bakwena ba Mogopa owned and settled on the following farms:
Berseba 503
Boschpoort 841
Karreepoort 623
Leeukop 501
Leeuwpan 1047
Losperfontein 119
Pearl 395
Waaikraal 206
Wolwekraal 206
Wonderkop 835
Nooitgerdacht 908
Bospoort 16
Elandsfontein 20 & 21

Farms of the Hebron Section:
Kameelfontein 51
Sjambok zynkraal 52
Syferfontein 310
Oskraal 437
Uitvalgrond 376

Farms of the Jericho Section:
Palmietfontein 59
Kaalzandbult 34
Uitvalgrond 326

## 5.2 BaKgatla ba ga Mmakau

According to ethnographic evidence the Bakgatla baga Mmakau, a Tswana-speaking group, settled at Gammakau in Sjambok's Location on the farm Hoekfontein 432JQ in the Odi District since the late 18th century AD. The farms Hoekfontein 432JQ and Klipfontein fall generally within the Bakgatla baga Mmakau's sphere of influence. The baMmakau (totem: blue monkey (kgabo)) is also a group that is associated with the Mabjanamatswana mountain range north-east of Brits.

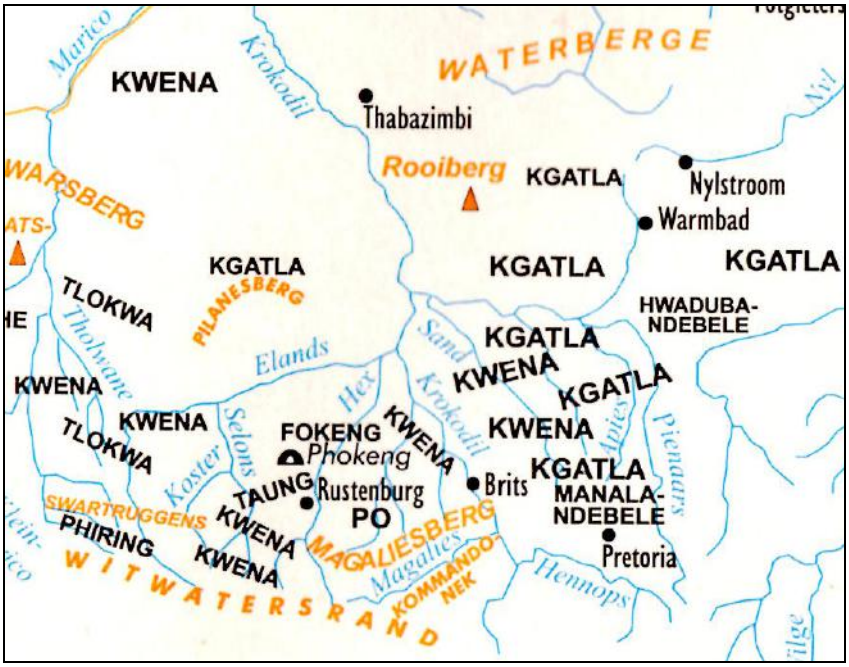


**Figure 23: The various Tswana groups north of Brits that are relevant to this survey (after Bergh 1998)**

# Addendum 2: Description of Recorded Sites

## Site 1

**A. GENERAL SITE DESCRIPTION**

The site comprises a Late Iron Age settlement which consists of several stone-walled enclosures. The site is roughly 130 m x 50 m in extent. The site probably functioned as a cattle outpost and/or small settlement during the Difaqane period and is associated with the Bakwena ba Mogopa that are known to live in the area. No substantial midden deposits were recorded, however several surface concentrations of potsherds were noted at the site. The site represents a specific period in the history of the region and together with the other sites in the area will give a more detailed interpretation of settlement distribution during the early 19th century.

| **B. SITE EVALUATION** | | |
|---|---|---|
| **B1. HERITAGE VALUE** | **Yes** | **No** |
| **Historic Value** | | |
| It has importance to the community or pattern of South Africa's history or precolonial history. | √ | |
| It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa. | | √ |
| It has significance relating to the history of slavery in South Africa. | | √ |
| **Aesthetic Value** | | |
| It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group. | | √ |
| **Scientific Value** | | |
| It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage. | √ | |
| It has importance in demonstrating a high degree of creative or technical achievement at a particular period. | | √ |
| It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation. | √ | |
| **Social Value** | | |
| It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place). | | √ |
| **Tourism Value** | | |
| It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination. | | √ |
| **Rarity Value** | | |
| It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage. | | √ |
| **Representative Value** | | |
| It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects. | √ | |
| **B2. REGIONAL CONTEXT** | | |
| Other similar sites in the regional landscape. | √ | |
| **B3. CONDITION OF SITE** | | |
| Integrity of deposits/structures. | Exposed but stable | |

| **C. SPHERE OF SIGNIFICANCE** | **High** | **Medium** | **Low** |
|---|---|---|---|
| International | | | √ |
| National | | | √ |
| Provincial | | √ | |
| Local | | √ | |
| Specific community | | √ | |

| **D. FIELD REGISTER RATING** | |
|---|---|
| National/Grade 1 [should be registered, retained] | |
| Provincial/Grade 2 [should be registered, retained] | |
| Local/Grade 3A [should be registered, mitigation not advised] | |
| Local/Grade 3B [High significance; mitigation, partly retained] | |

| | |
|---|---|
| Generally Protected A [High/Medium significance, mitigation] | |
| Generally protected B [Medium significance, to be recorded] | √ |
| Generally Protected C [Low significance, no further action] | |
| **E. GENERAL STATEMENT OF SITE SIGNIFICANCE** | |
| Low | |
| Medium | √ |
| High | |
| **F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT** | |
| None | |
| Peripheral | |
| Destruction | √ |
| Uncertain | |

**G. RECOMMENDED MITIGATION**

- Phase 2 cultural investigation with surveying and mapping of the site
- Application for destruction permit from SAHRA

**H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS**

- National Heritage Resources Act (Act No. 25 of 1999, Section 35)
- Permit from SAHRA

**I. PHOTOGRAPHS**

**Figure 24: Detail section of one of the enclosure walls**

**Figure 25: Detail section of one of the enclosure walls**

**Figure 26: Several pieces of pottery (potsherds) recorded on the surface, near the stone-walled settlement**

## Site 2

**A. GENERAL SITE DESCRIPTION**

The site comprises a Late Iron Age stone-walled enclosure. The site is roughly 20 m x 20 m in extent. The site probably functioned as a cattle outpost during the Difaqane period and is associated with the Bakwena ba Mogopa that are known to live in the area. The site represents a specific period in the history of the region and together with the other sites in the area will give a more detailed interpretation of settlement distribution during the early 19th century.

| **B. SITE EVALUATION** | | |
|---|---|---|
| **B1. HERITAGE VALUE** | **Yes** | **No** |
| **Historic Value** | | |
| It has importance to the community or pattern of South Africa's history or precolonial history. | √ | |
| It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa. | | √ |
| It has significance relating to the history of slavery in South Africa. | | √ |
| **Aesthetic Value** | | |
| It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group. | | √ |
| **Scientific Value** | | |
| It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage. | √ | |
| It has importance in demonstrating a high degree of creative or technical achievement at a particular period. | | √ |
| It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation. | √ | |
| **Social Value** | | |
| It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place). | | √ |
| **Tourism Value** | | |
| It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination. | | √ |

| | | |
|---|---|---|
| **Rarity Value** | | |
| It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage. | | √ |
| **Representative Value** | | |
| It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects. | √ | |
| **B2. REGIONAL CONTEXT** | | |
| Other similar sites in the regional landscape. | √ | |
| **B3. CONDITION OF SITE** | | |
| Integrity of deposits/structures. | Exposed but stable | |

| **C. SPHERE OF SIGNIFICANCE** | **High** | **Medium** | **Low** |
|---|---|---|---|
| International | | | √ |
| National | | | √ |
| Provincial | | √ | |
| Local | | √ | |
| Specific community | | √ | |

| **D. FIELD REGISTER RATING** | |
|---|---|
| National/Grade 1 [should be registered, retained] | |
| Provincial/Grade 2 [should be registered, retained] | |
| Local/Grade 3A [should be registered, mitigation not advised] | |
| Local/Grade 3B [High significance; mitigation, partly retained] | |
| Generally Protected A [High/Medium significance, mitigation] | |
| Generally protected B [Medium significance, to be recorded] | √ |
| Generally Protected C [Low significance, no further action] | |
| **E. GENERAL STATEMENT OF SITE SIGNIFICANCE** | |
| Low | |
| Medium | √ |
| High | |
| **F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT** | |
| None | |
| Peripheral | |
| Destruction | √ |
| Uncertain | |

**G. RECOMMENDED MITIGATION**

- Phase 2 cultural investigation with surveying and mapping of the site
- Application for destruction permit from SAHRA

**H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS**

- National Heritage Resources Act (Act No. 25 of 1999, Section 35)
- Permit from SAHRA

**I. PHOTOGRAPHS**

**Figure 27: Detail section of one of the enclosure walls**

## Site 3

**A. GENERAL SITE DESCRIPTION**

The site comprises a Late Iron Age stone-walled enclosure. The site is roughly 15 m x 15 m in extent. The site probably functioned as a cattle outpost during the Difaqane period and is associated with the Bakwena ba Mogopa that are known to live in the area. The site represents a specific period in the history of the region and together with the other sites in the area will give a more detailed interpretation of settlement distribution during the early 19th century.

**B. SITE EVALUATION**

| **B1. HERITAGE VALUE** | **Yes** | **No** |
|---|---|---|
| **Historic Value** | | |
| It has importance to the community or pattern of South Africa's history or precolonial history. | √ | |
| It has strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa. | | √ |
| It has significance relating to the history of slavery in South Africa. | | √ |
| **Aesthetic Value** | | |
| It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group. | | √ |
| **Scientific Value** | | |
| It has potential to yield information that will contribute to an understanding of South Africa's natural and cultural heritage. | √ | |
| It has importance in demonstrating a high degree of creative or technical achievement at a particular period. | | √ |
| It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation. | √ | |
| **Social Value** | | |
| It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place). | | √ |
| **Tourism Value** | | |
| It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination. | | √ |

| | | |
|---|---|---|
| **Rarity Value** | | |
| It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage. | | √ |
| **Representative Value** | | |
| It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects. | √ | |
| **B2. REGIONAL CONTEXT** | | |
| Other similar sites in the regional landscape. | √ | |
| **B3. CONDITION OF SITE** | | |
| Integrity of deposits/structures. | Exposed but stable | |

| **C. SPHERE OF SIGNIFICANCE** | **High** | **Medium** | **Low** |
|---|---|---|---|
| International | | | √ |
| National | | | √ |
| Provincial | | √ | |
| Local | | √ | |
| Specific community | | √ | |

| **D. FIELD REGISTER RATING** | |
|---|---|
| National/Grade 1 [should be registered, retained] | |
| Provincial/Grade 2 [should be registered, retained] | |
| Local/Grade 3A [should be registered, mitigation not advised] | |
| Local/Grade 3B [High significance; mitigation, partly retained] | |
| Generally Protected A [High/Medium significance, mitigation] | |
| Generally protected B [Medium significance, to be recorded] | √ |
| Generally Protected C [Low significance, no further action] | |
| **E. GENERAL STATEMENT OF SITE SIGNIFICANCE** | |
| Low | |
| Medium | √ |
| High | |
| **F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT** | |
| None | |
| Peripheral | |
| Destruction | √ |
| Uncertain | |

**G. RECOMMENDED MITIGATION**

- Phase 2 cultural investigation with surveying and mapping of the site
- Application for destruction permit from SAHRA

**H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS**

- National Heritage Resources Act (Act No. 25 of 1999, Section 35)
- Permit from SAHRA

**I. PHOTOGRAPHS**

**Figure 28: Detail section of one of the enclosure walls**

## Addendum 3: Surveyor General Farm Diagram

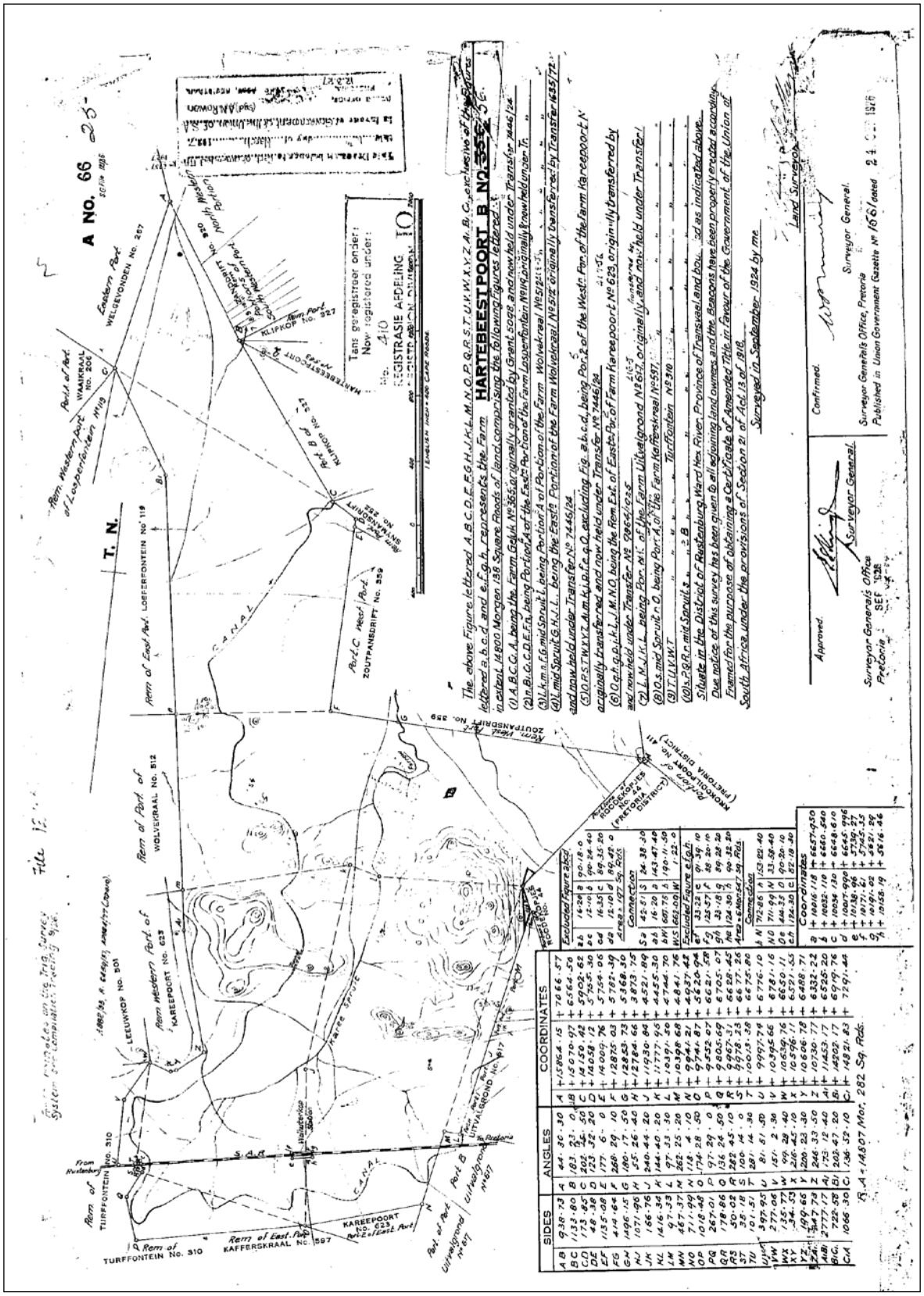


**Figure 29: Surveyor General's map of the farm Hartebeestpoort B 410JQ which was surveyed in 1926, as various farms were consolidated under this new farm name**