

**Cultural Heritage Assessment for the Proposed Hekpoort - Cashan  
Substation and Powerline Servitude, Wes Rand Local Municipality,  
Gauteng**

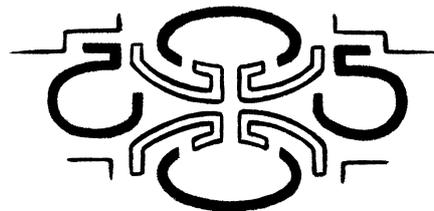


For

<b>Project Applicant</b> ESKOM HOLDINGS SOC LIMITED P.O. Box 8610 Johannesburg 2000 Tel: +27 11 711 2824 Fax: +27 086 604 1274 <a href="mailto:neo.masemola@eskom.co.za">neo.masemola@eskom.co.za</a>	<b>Environmental Consultant</b> SRK Consulting (Pty) Ltd PO Box 55291 Northlands 2116 Tel: 012 361 9821 Tel: 012 361 9912 <a href="mailto:LPoll-Jonker@srk.co.za">LPoll-Jonker@srk.co.za</a>
--	---

By

**Francois P Coetzee**  
**Department of Anthropology & Archaeology**  
**University of South Africa**  
**PO Box 392**  
**Pretoria**  
**0003**  
**Tel: (012) 429 6297**  
**Fax: (012) 429 6091**  
**coetzfp@unisa.ac.za**



<b>Date:</b>	<b>September 2014</b>
<b>Version:</b>	<b>1 (Final Draft)</b>

## **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. SRK Consulting (Pty) Ltd has been appointed by Eskom Holdings to conduct a Basic Assessment (BA) in terms of Sections 24(2)(a) and 24(D) of the National Environmental Management Act (Act 107 of 1998), as read with Government Notices R 544 (Regulations 10(i)) and R546. The cultural heritage assessment forms part of this process and will therefore focus on the proposed Powerline Servitude between the existing Hekpoort substation and the proposed Cashan Substation near Hekpoort and the report will form part of the BA process.

The survey area is situated on various portions of the farms Hekpoort 504 JQ, Hartebeestfontein 472 JQ, Hartebeestfontein 473 JQ and Bultfontein 475 JQ which is located near the junction of the R560 and R563, south of Hekpoort, West Rand District Municipality, Gauteng.

### ***Archaeological and Historical Structures***

Two Late Iron Age sites were recorded during the survey. Site 1 consists of a surface scatter of slag indicating possible iron or copper smelting in the area. No furnace was recorded. Site 13 is a small stone-walled Late Iron Age settlement. No substantial midden deposits or other cultural remains were recorded in association. These structures are older than 60 years.

A total of five historical buildings and structures (Sites 2, 3, 4, 7, and 8) were recorded. Two of the sites are historically significant as they are linked to early transport networks in the area. Site 7 is the steel bridge over the Magalies River probably dating to the 1910s and Site 8 is the remains of the first road bridge over the same river probably dating to the 1890s and was possibly linked to the postal delivery route to Hekpoort. Site 4 indicates the furrow (canal) network in the areas north and south of the Magalies River that were linked to a local irrigation network and is probably also older than 60 years. Site 3 is a historical farmhouse complex consisting of several buildings associated with the first farming activities at Bridge Waters a portion of the original farm Hekpoort 504 JQ. Site 8 is a historical house that has been extensively renovated and altered and probably dates to the 1950s.

A further significant event is the Battle of Nooitgedacht that took place during the Second Anglo-Boer War (1899 – 1902) which took place in the valley north of Hekpoort on 13 December 1900. However no blockhouses or remains of the skirmish were recorded in the survey area.

### ***Graveyards***

A total of five graveyards (Sites 5, 6, 9, 10 and 11) were recorded during the survey.

However, if the exhumation and reburial of the graveyards is envisaged it will entail social consultation and permit application. Other legislative measures which may be pertinent include the Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925), 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, Ordinance on Exhumations (Ordinance No. 12 of 1980) as well as any local and regional provisions, laws and by-laws that may be in place.

Graves are generally be classified into four categories. These are:

- Graves younger than 60 years;
- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict or of individuals of royal descent

The relocation of the informal settlement will entail a social consultation process.

Site No	Site Type	Statement of Significance	Impact	Proposed Mitigation
1	House Remains	-	None	Proactive positioning of pylon
2	Historical Bridge (Road)	Generally Protected B: Medium significance	None	Proactive positioning of pylon
3	Historical Farm House & Tobacco Barn	Generally Protected B: Medium significance	None	Proactive positioning of pylon
4	Water canal	Generally Protected B: Medium significance	None	Proactive positioning of pylon
5	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
6	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
7	Historical Bridge (Railway)	Local/Grade 3B: High significance	None	Proactive positioning of pylon
8	Historical House	Generally Protected C: Low significance	None	Proactive positioning of pylon
9	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
10	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
11	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
12	Iron Age Smelting	Generally Protected B: Medium significance	None	Proactive positioning of pylon
13	Late Iron Age Stone-walled settlement	Generally Protected B: Medium significance	None	Proactive positioning of pylon

### ***Conclusion and Recommendations***

Background research confirmed that the farm Hekpoort 504 JQ and surroundings areas are archaeologically and historically significant. Various early Tswana and Nguni groups lived in and traversed the region during the second millennium AD. The first travelers explored the area in the 1830s and the first farms were surveyed by the 1890s. As a result several cultural heritage sites were recorded.

Based on the assessment, from a heritage perspective, during the construction phase and maintenance of the servitude, the following recommendations are made:

- During the planning and construction phases of the powerline cognisance should be taken of the location of the heritage sites to prevent any impact
- Proactive positioning of powerline pylons will prevent any impact on the sites
- The Proposed Powerline Route running along the existing railway line is the preferred option as a pro-active placement of the pylons will prevent any impact on the recorded heritage sites
- The Powerline 1 Route is the least preferred route as there are extended areas that will need mitigation near the crossing of the Magalies River

### 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.



---

Francois P Coetzee  
Cultural Heritage Consultant  
Accredited Archaeologist for the SADC Region  
Professional Member of ASAPA (CRM Section) Reg no: 28

## **Contents**

1. Introduction.....	7
2. Objectives.....	7
3. Study Area.....	7
4. Proposed Project Activities.....	13
5. Legal Framework.....	13
6. Study Approach/Methods.....	16
6.1 Review of existing information/data.....	17
6.2 Site visit.....	20
6.3 Impact assessment.....	20
6.4 Assumptions, restrictions and gaps in knowledge.....	20
7. Description and Evaluation of Cultural Heritage Sites.....	20
8. Summary of Site Locations.....	23
9. Recommendations and Conclusions.....	24
References.....	26
Addendum 1: Archaeological and Historical Sequence.....	28
Addendum 2: Description of Sites.....	36
Addendum 3: Surveyor General Farm Diagram.....	64

## **Figures**

Figure 1: Regional context of the survey area (indicated by the red circle).....	8
Figure 2: General context of the survey area (Google Earth).....	8
Figure 3: Local context of the survey area (Google Earth).....	8
Figure 4: The context of the survey area as indicated on the 1:50 000 topographic map 2527DC.....	9
Figure 5: The general view of farms in the West Rand Local Municipality, Gauteng.....	9
Figure 6: General view of the eastern section of the survey area (old Hekpoort railway line) .....	10
Figure 7: General view along the R560 (agricultural fields).....	10
Figure 8: General view of the eastern section near the railway line.....	11
Figure 9: General view of the mid-section of the R560.....	11
Figure 10: General view of sand mining activities near the existing Hekpoort substation....	12
Figure 11: Existing Hekpoort substation on the eastern end of the proposed powerline.....	12
Figure 12: The Magalies River near Bridge Waters.....	12
Figure 13: The two alternatives proposed for the Cashan to Hekpoort powerline (Powerline 1: Red line; Proposed Powerline Route: Purple line).....	13
Figure 14: Recorded survey tracks for the project.....	17
Figure 15: Fred Jeppe's Map of the relevant farms in 1899, indicating the postal route and post office on the farm Hekpoort 122 (504 JQ).....	19
Figure 16: The 1980s topographic map of the western section of Hekpoort indicating several farm portions not on more recent maps (e.g. Bridge Waters & Stoney Ridge) and several furrows (canals).....	19

<i>Figure 17: Palaeontological map of the Hekpoort area .....</i>	<i>19</i>
<i>Figure 18: Location of the recorded heritage sites (1:50 000 topographical map 2527DC).....</i>	<i>21</i>
<i>Figure 19: Detail of the location of the sites near the Magalies River crossing.....</i>	<i>22</i>
<i>Figure 20: Structures indicated on the 1:50 000 topographic map of the 1980s.....</i>	<i>22</i>
<i>Figure 21: Location of the heritage sites near Bridge Water on the farm Hekpoort 504 JQ ..23</i>	
<i>Figure 22: Some of the significant archaeological sites in the Magaliesberg region (Carruthers 1990).....</i>	<i>30</i>
<i>Figure 23: Layout and location of the Battle of Nooitgedacht on 13 December 1900 .....</i>	<i>32</i>
<i>Figure 24: Railway lines and roads published in 1948 (South Africa 1948).....</i>	<i>33</i>
<i>Figure 25: Hekpoort indicated on an early 20th century map (no railway line indicated) (Rhind &amp; Walker 1996).....</i>	<i>33</i>
<i>Figure 26: The Pretoria - Rustenburg railway line as recorded in 1910 with no indication of the Magaliesburg line through Hekpoort (Lederer 1910).....</i>	<i>34</i>
<i>Figure 27: The Pretoria - Magaliesburg railway line as published in 1971 (Nock 1971).....</i>	<i>34</i>
<i>Figure 28: Detail view of several demolished structures (houses) situated north of the railway track.....</i>	<i>37</i>
<i>Figure 29: General view of the dilapidated multi-room house .....</i>	<i>40</i>
<i>Figure 30: General view of the dilapidated multi-room house .....</i>	<i>42</i>
<i>Figure 31: Start of the canal (furrow) off the Magalies River with sluice opening clearly visible .....</i>	<i>44</i>
<i>Figure 32: General view of the graveyard .....</i>	<i>47</i>
<i>Figure 33: General view of the graveyard (graves indicated with stone-packed bases) .....</i>	<i>49</i>
<i>Figure 34: General view of the steel bridge .....</i>	<i>51</i>
<i>Figure 35: Internal view of the steel bridge .....</i>	<i>52</i>
<i>Figure 36: General view of the historical house next to the R563 .....</i>	<i>54</i>
<i>Figure 37: General view of the graveyard .....</i>	<i>56</i>
<i>Figure 38: General view of the graveyard .....</i>	<i>58</i>
<i>Figure 39: Surveyor General's map of Portion 3 of the farm Hekpoort 504 JQ, first surveyed in 1892 .....</i>	<i>64</i>

## **Tables**

<i>Table 1: Rating the significance of sites .....</i>	<i>14</i>
<i>Table 2: Level of protection of buildings/structures.....</i>	<i>16</i>
<i>Table 3: Description and evaluation of the recorded sites.....</i>	<i>21</i>
<i>Table 4: Summary of the site coordinates.....</i>	<i>23</i>

## **1. Introduction**

SRK Consulting (Pty) Ltd has been appointed by Eskom Holdings to conduct a Basic Assessment (BA) in terms of Sections 24(2)(a) and 24(D) of the National Environmental Management Act (Act 107 of 1998), as read with Government Notices R 544 (Regulations 10(i)) and R546. The cultural heritage assessment forms part of this process and will therefore focus on the proposed Powerline Servitude between the existing Hekpoort substation and the proposed Cashan Substation near Hekpoort, Wes Rand Local Municipality and the report will form part of the BA process.

## **2. Objectives**

The general aim of this 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 the these remains in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value
- Assess any possible impact on the archaeological and historical remains within the area emanating from the proposed development activities
- Propose possible mitigation measures which will limit or prevent any impact provided that such action is necessitated by the development

## **3. Study Area**

The survey area is situated on various portions of the farms Hekpoort 504 JQ, Hartebeestfontein 472 JQ, Hartebeestfontein 473 JQ and Bultfontein 475 JQ which is located near the junction of the R560 and R563, south of Hekpoort, West Rand District Municipality, Gauteng.

The survey area consists mostly of fragmented agricultural fields due to the fact that all the original farms have been subdivided into small holdings (plots). Due to this fragmentation other activities such as sand mining, small-scale farming, livestock camps, dwellings, fences and other associated infrastructure have development in recent decades. The survey area is mostly open and flat and is characterized undulating hills in the north (Magaliesberg) and south (Witwatersberg). Several perennial rivers and non-perennial streams flow through the area, notably the Magalies River and Klein River. Several canals were also constructed to channel off water for irrigation schemes. The landscape is also fragmented by several gravel and tarred roads and even more significantly the now defunct Pretoria – Magaliesburg Railway line (also more recently known as the Patat Express (Steam train)), which runs east-west through the survey area (Clarke 1978). The vegetation generally falls in the Central Bushveld Bioregion (Savanna Biome) (Mucina & Rutherford 2010).

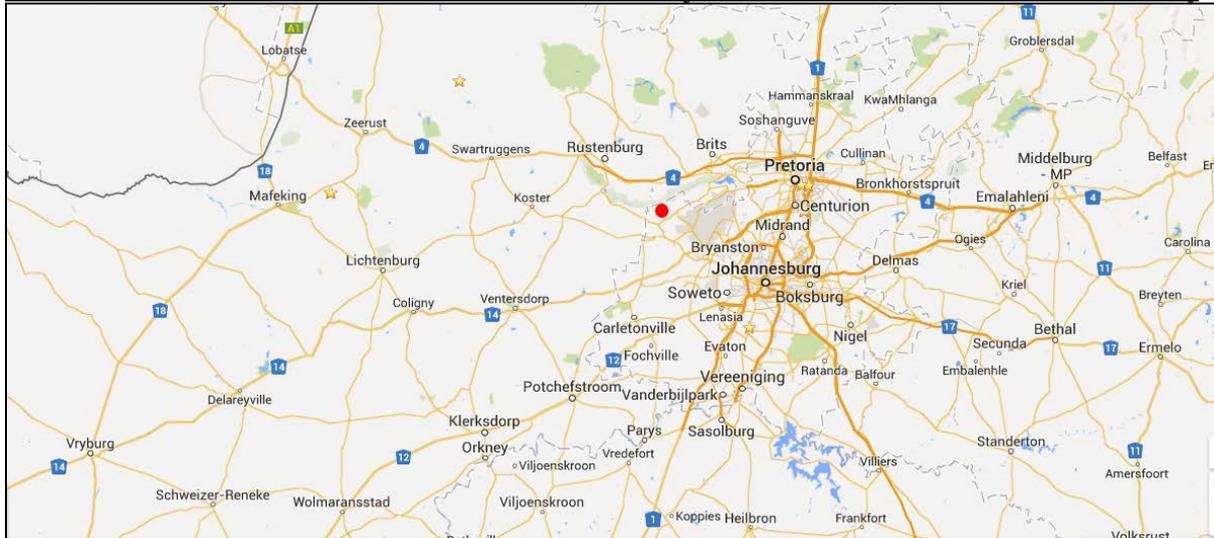


Figure 1: Regional context of the survey area (indicated by the red circle)



Figure 2: General context of the survey area (Google Earth)

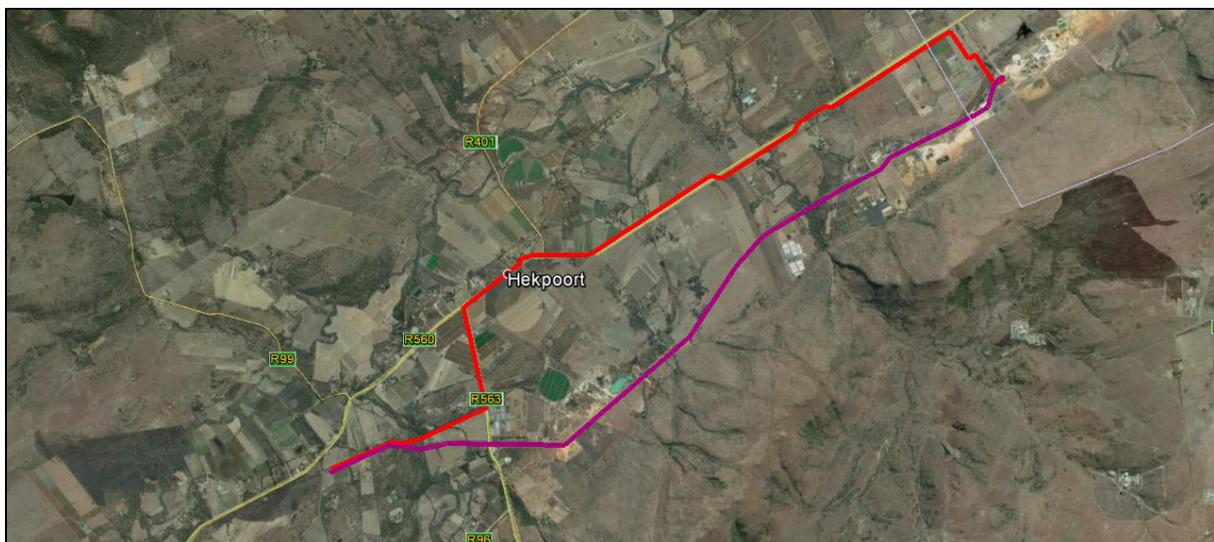


Figure 3: Local context of the survey area (Google Earth)





**Figure 6: General view of the eastern section of the survey area (old Hekpoort railway line)**



**Figure 7: General view along the R560 (agricultural fields)**



**Figure 8: General view of the eastern section near the railway line**



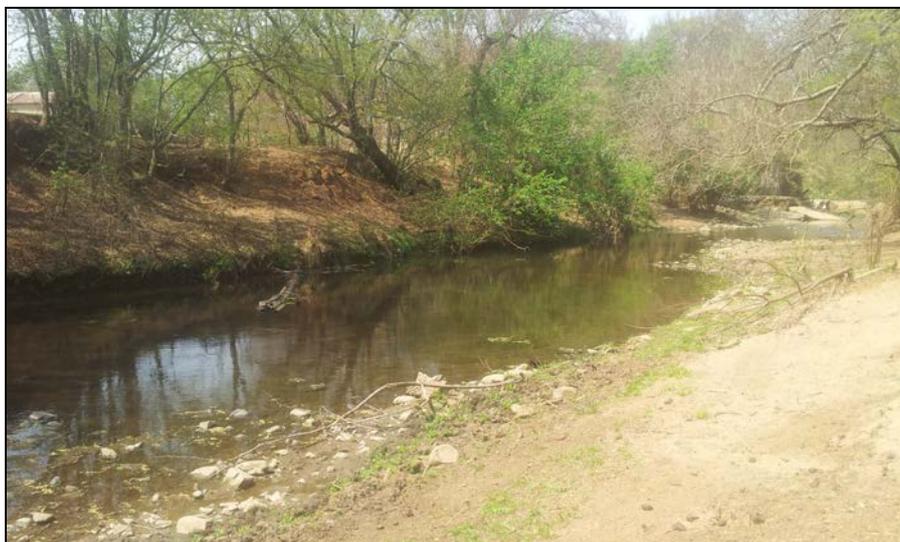
**Figure 9: General view of the mid-section of the R560**



**Figure 10: General view of sand mining activities near the existing Hekpoort substation**



**Figure 11: Existing Hekpoort substation on the eastern end of the proposed powerline**



**Figure 12: The Magalies River near Bridge Waters**

#### 4. Proposed Project Activities

The proposed development aims to register a new Servitude and will entail the construction of the following:

- a powerline (capacity of more than 33 kV but less than 275 kV), and
- the Cashan substation (footprint of roughly 100 m x 100 m).

The proposed powerline will therefore connect the proposed Cashan Substation with the existing Hekpoort Substation.

Furthermore, please note that two alternatives are proposed for the powerline route, namely:

- The proposed powerline route (approximately 11.2 km)
- Powerline 1 (approximately 12.7 km in length)

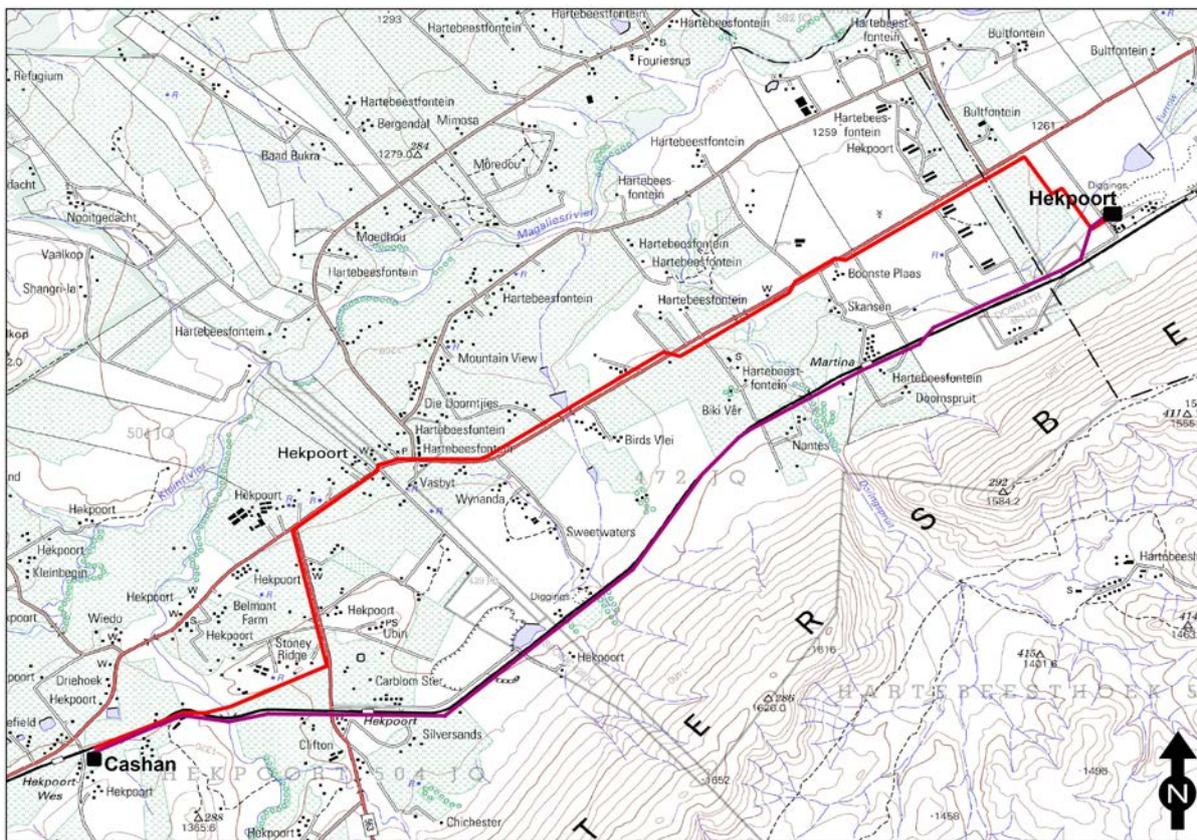


Figure 13: The two alternatives proposed for the Cashan to Hekpoort powerline (Powerline 1: Red line; Proposed Powerline Route: Purple line)

#### 5. Legal Framework

- 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 and also local various 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).

<b>Significance Rating</b>	<b>Action</b>
Not protected	1. None
Low	2a. Recording and documentation (Phase 1) of site adequate; no further action required
	2b. Controlled sampling (shovel test pits, auguring), mapping and documentation (Phase 2 investigation); permit required for sampling and destruction
Medium	3. Excavation of representative sample, C <sup>14</sup> 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 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)).
- **Architectural significance:**
  - Does the site contain any important examples of a building type?
  - Are any of the buildings important examples of a style or period?
  - Do any of the buildings contain fine details and or reflect fine workmanship?
  - Are any of the buildings the work of a major architect or builder?
  - Are the buildings important examples of an industrial, technological or engineering development?
  - What is the integrity of the buildings?
  - Are the buildings still utilised?
  - Has the buildings been altered and are these alterations sympathetic to the original intent of the design?
- **Spatial significance of architecture:**
  - Is the site or any of the buildings a landmark in the city or town?
  - Does the plant contribute to the character of the neighbourhood/region?
  - Do the buildings contribute to the character of the street or square?
  - Is the place or building part of an important group of buildings?
- **Architecture: Levels of significance are:**
  - Protect
  - Highly significant
  - Possible significance
  - Least significance
  - No significance
- **Architecture: Levels of protection are:**

Retain and protect	Considered to be of high significance. The building or structure can be used as part of the development but must be suitably protected. Should not include major structural alterations. If the building is older than 60 years a modification permit is required from SAHRA.
Retain and re-use	Considered to be of moderate significance. The building or structure can be altered to be accommodated within the

	development plans. Structural alterations can be included. If the building is older than 60 years a modification permit is required from SAHRA.
Alter and re-use	Considered to be of low significance. The building or structure can be structurally altered or destruction can be considered following further documentation. If the building is older than 60 years a modification/destruction permit is required from SAHRA.
Can be demolished	Considered to be of negligible significance and can be demolished. If the building is older than 60 years a destruction permit is required from SAHRA.

**Table 2: Level of protection of buildings/structures**

- 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 SRK Consulting. In addition Google images and topographic maps were used to indicate the survey area. The survey area was localised on the 1:50 000 topographic maps 2527DC. Please note that all maps are orientated with north facing upwards (unless stated otherwise).

The survey area was preliminary surveyed and selected areas were investigation on foot using both systematic and intuitive pedestrian survey techniques. Local residents were also consulted during ad hoc interviews to determine the location of any known heritage sites, especially graves.

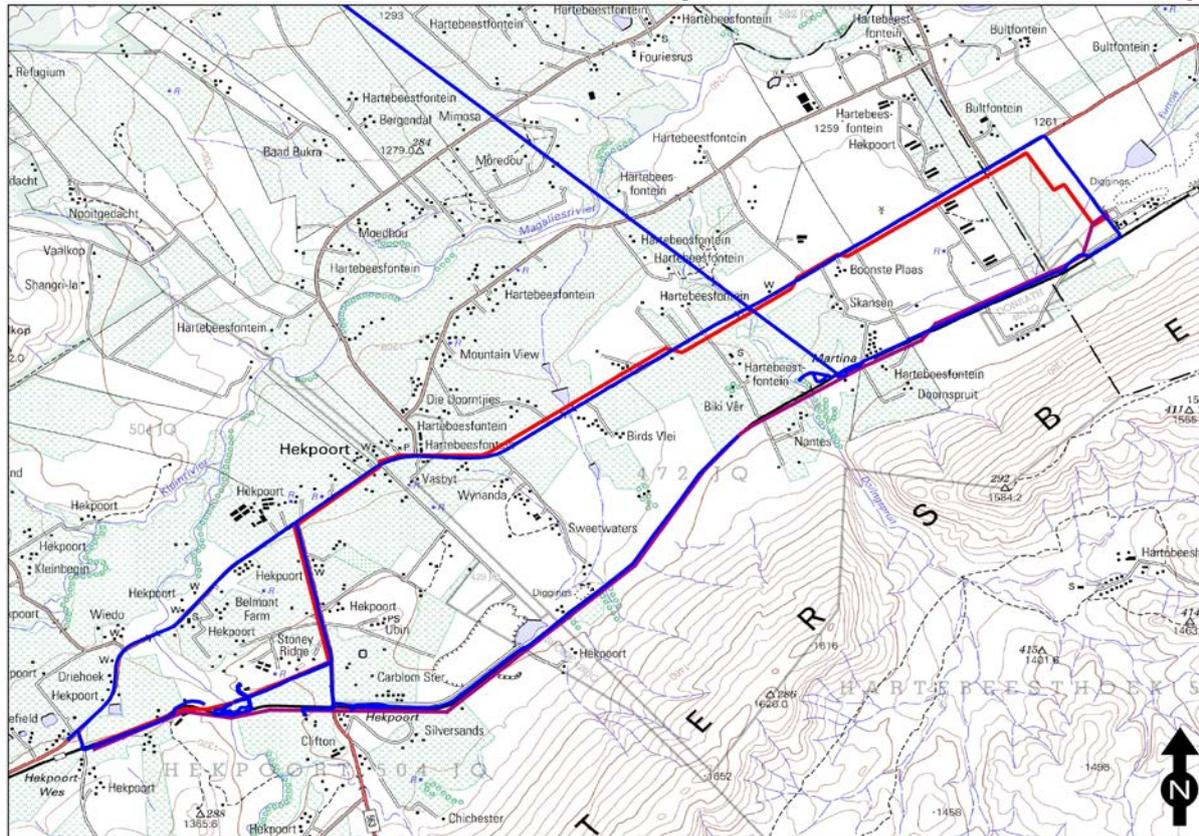


Figure 14: Recorded survey tracks for the project

## 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
- Published maps on the railway tracks in the survey area
- Published material on the area
- Previous heritage and research surveys completed in the area (see Coetzee 2010, 2011 and Pepler-Harcombe 2010).

Data from previous heritage assessments and current research projects in the area have revealed a multi-layered cultural landscape in and around the hamlet Hekpoort. The poort itself provided access the plains south of the Magaliesberg Mountains and were used from prehistoric times by Stone Age and Iron Age occupants until the more historic period associated with early farmers, historic wars (e.g. Second Anglo-Boer War 1899 – 1902) and eventually the most recent tourist venues and cultural activities.

Contact between hunter-gatherers and early farmers began around AD 350 and would continue in the form of peaceful patron-client relationships. One example of such a co-existence of cultures comes from Olifantsnek, where hunter-gatherers and early farmers lived side by side for almost 500 years (Caruthers 1990:224). Further evidence of contact comes

from the introduction of Bambata ceramics to the site of Jubilee Shelter in the Magaliesberg region around AD 225 (Wadley 1996: 205).

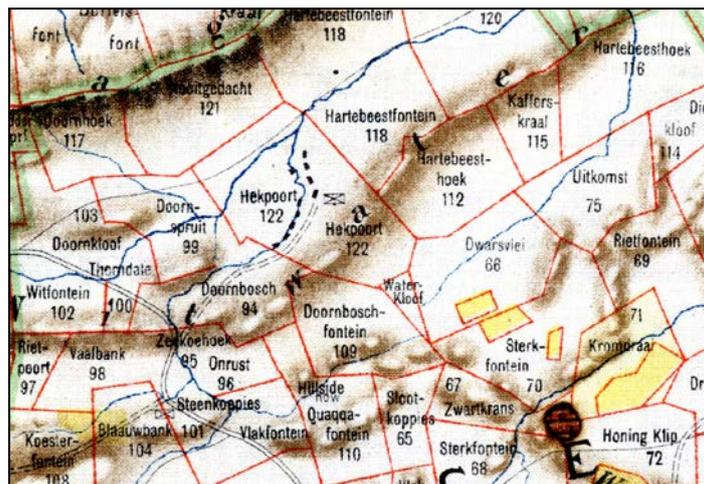
Research conducted by early archaeologists Revil Mason and Robbie Steel in the area established a framework for Later Stone Age and Early Iron Age occupation at sites such as Jubilee Shelter, Kruger Cave and Uitkomst Cave. Rock Art from the area is also well known on the southern slopes of the Magaliesberg Mountains, attesting the presence of early Stone Age hunter-gatherers (Pepler-Harcombe 2010).

The Early Iron Age settlements in the region such as Broederstroom are well known. Late Iron Age settlements (e.g. Olifantspoort) are associated with the arrival of the Tswana in the Magaliesberg area. Nguni groups also began to migrate to the slopes of the Magaliesberg near present-day Brits who originated from the eastern coastal lowlands. These Nguni groups should however not be confused with the Ndebele of Mzilikazi of the early 19<sup>th</sup> century (Huffman 2007).

The Surveyor General's map of the farm Hekpoort 504 JQ was first surveyed in February 1892 (see Addendum 3). Most of the structures are associated with the period after the subdivision of the original farms and as such are more recent. However, there are some historical buildings and structures that are associated with the early 20<sup>th</sup> century occupation. Also it seems logical to assume that this area was mostly used for agricultural activities from early on.

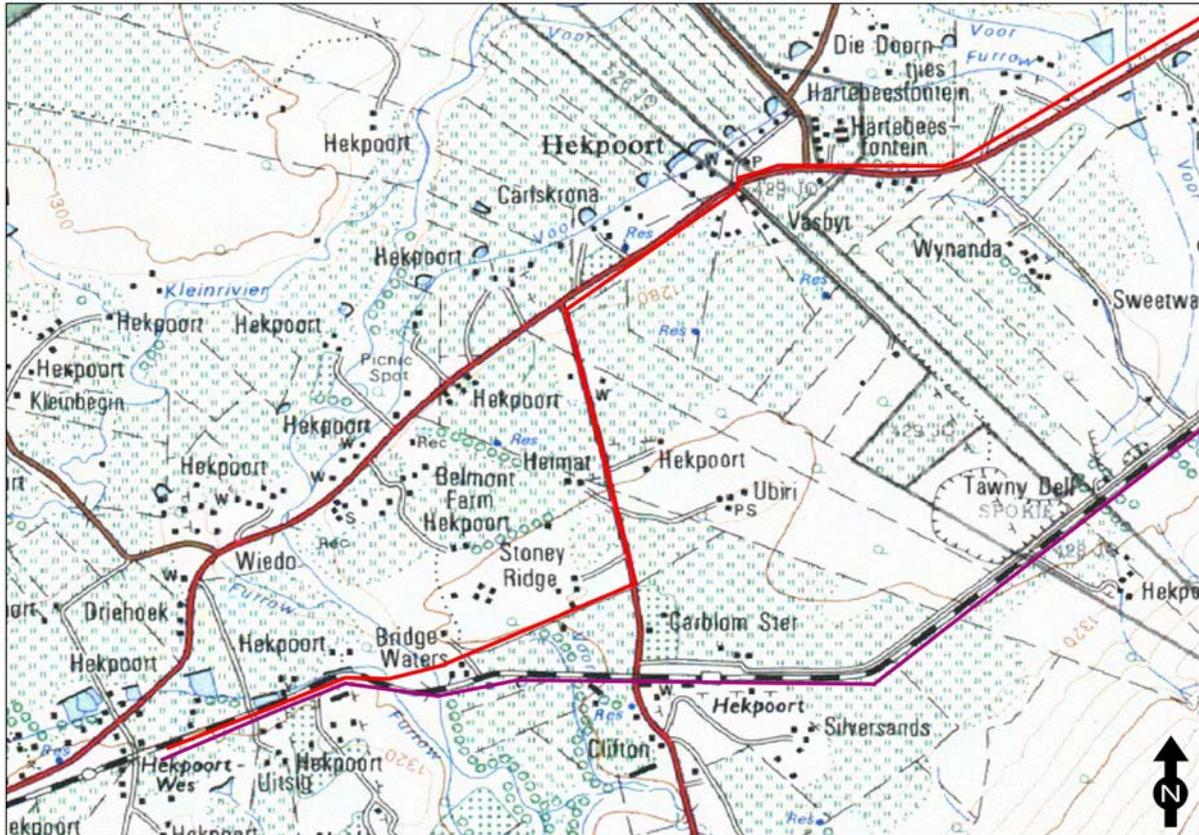
A significant event during the Second Anglo-Boer War was the Battle of Nooitgedacht. The battle took place on 13 December 1900 in the valley between the Magaliesberg Mountains and Witwatersberg Mountains north-west of Hekpoort (see Addendum 2).

One of the more recent historically significant features in the survey area is the Pretoria – Magaliesburg railway line. Of interest is the steel railway bridge over the Magalies River which was constructed by Patent Shaft and Axletree Co Ltd Engineers (Wednesbury, Staffordshire, England). A date of 1889 was recorded off the bridge plaque. It is interesting that although Jeppe's 1899 map of the Transvaal indicates the postal route and location of the post office on the farm Hekpoort, no evidence could be found of the Pretoria - Hekpoort railway line (Jeppe 1899). It seems that it was probably built later during the early part of the 20<sup>th</sup> century (see Addendum 2).



**Figure 15: Fred Jeppe's Map of the relevant farms in 1899, indicating the postal route and post office on the farm Hekpoort 122 (504 JQ)**

The portion of the farm Hekpoort 504 JQ that is today referred to as Bridge Water is especially significant as several historical farm houses, out buildings and other structures (even graveyards) are known in the area. Furthermore, at least two canal systems make there start off the Magalies River in this area (see Addendum 2).



**Figure 16: The 1980s topographic map of the western section of Hekpoort indicating several farm portions not on more recent maps (e.g. Bridge Waters & Stoney Ridge) and several furrows (canals)**

It seems that the farm portion known as Stoney Ridge shows a higher probability of palaeontological remains than the area further south along the R563.



**Figure 17: Palaeontological map of the Hekpoort area**

## 6.2 Site visit

The site investigation took place on 10 and 15 September 2014.

## 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. However, please note that due to the subterranean nature of cultural remains this report should not be construed as a record of all archaeological and historic sites in the area.

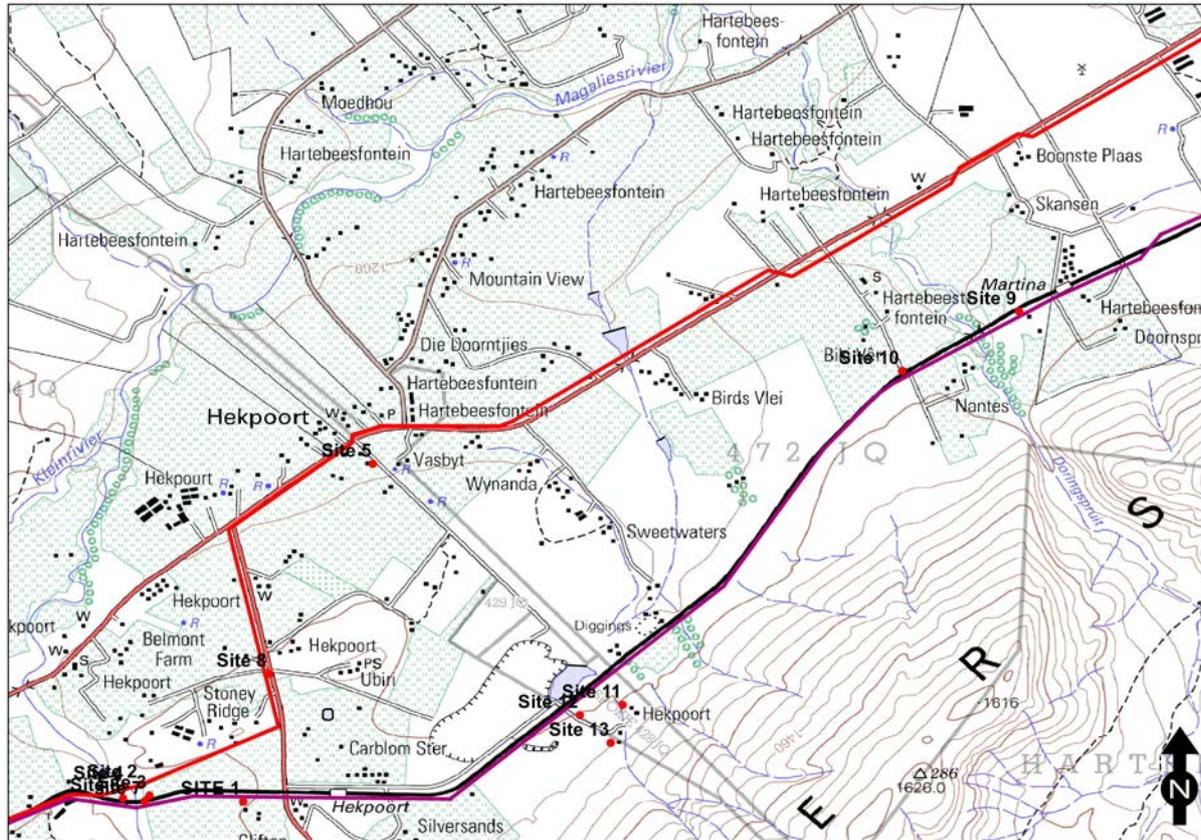
## 7. Description and Evaluation of Cultural Heritage Sites

The survey of the proposed area of development revealed a total of 12 heritage sites and one site that is not older than 60 years (Site 1). The heritage sites consist of two archaeological sites (Iron Age) (Site 12 and 13) and ten historical sites (Sites 2 – 10). The latter is made up of five graveyard sites (Sites 5, 6, 9, 10 and 11) and five historical buildings or structures (Sites 2, 3, 4, 7, and 8) (as indicated in the map, see Figure 18). However no Stone Age sites, assemblages or artefact scatters were recorded. Also see Addendum 2 for detail a description and evaluation of each recorded site.

Site No	Site Type	Statement of Significance	Impact	Proposed Mitigation
1	House Remains	-	None	Proactive positioning of pylon
2	Historical Bridge (Road)	Generally Protected B: Medium significance	None	Proactive positioning of pylon
3	Historical Farm House & Tobacco Barn	Generally Protected B: Medium significance	None	Proactive positioning of pylon
4	Water canal	Generally Protected B: Medium significance	None	Proactive positioning of pylon
5	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
6	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
7	Historical Bridge (Railway)	Local/Grade 3B: High significance	None	Proactive positioning of pylon
8	Historical House	Generally Protected C: Low significance	None	Proactive positioning of pylon
9	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
10	Graveyard	Generally Protected A:	None	Proactive positioning

		High/Medium significance		of pylon
11	Graveyard	Generally Protected A: High/Medium significance	None	Proactive positioning of pylon
12	Iron Age Smelting	Generally Protected B: Medium significance	None	Proactive positioning of pylon
13	Late Iron Age Stone-walled settlement	Generally Protected B: Medium significance	None	Proactive positioning of pylon

**Table 3: Description and evaluation of the recorded sites**



**Figure 18: Location of the recorded heritage sites (1:50 000 topographical map 2527DC)**

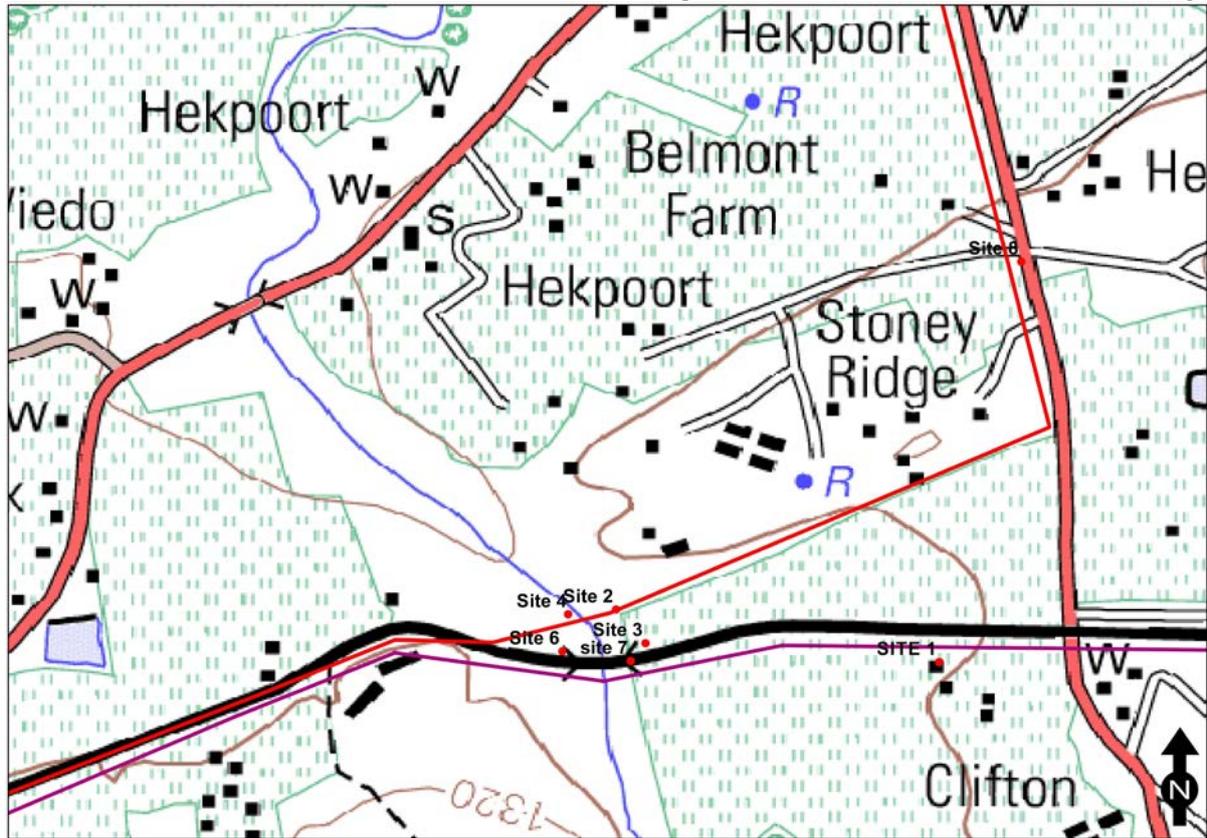


Figure 19: Detail of the location of the sites near the Magalies River crossing

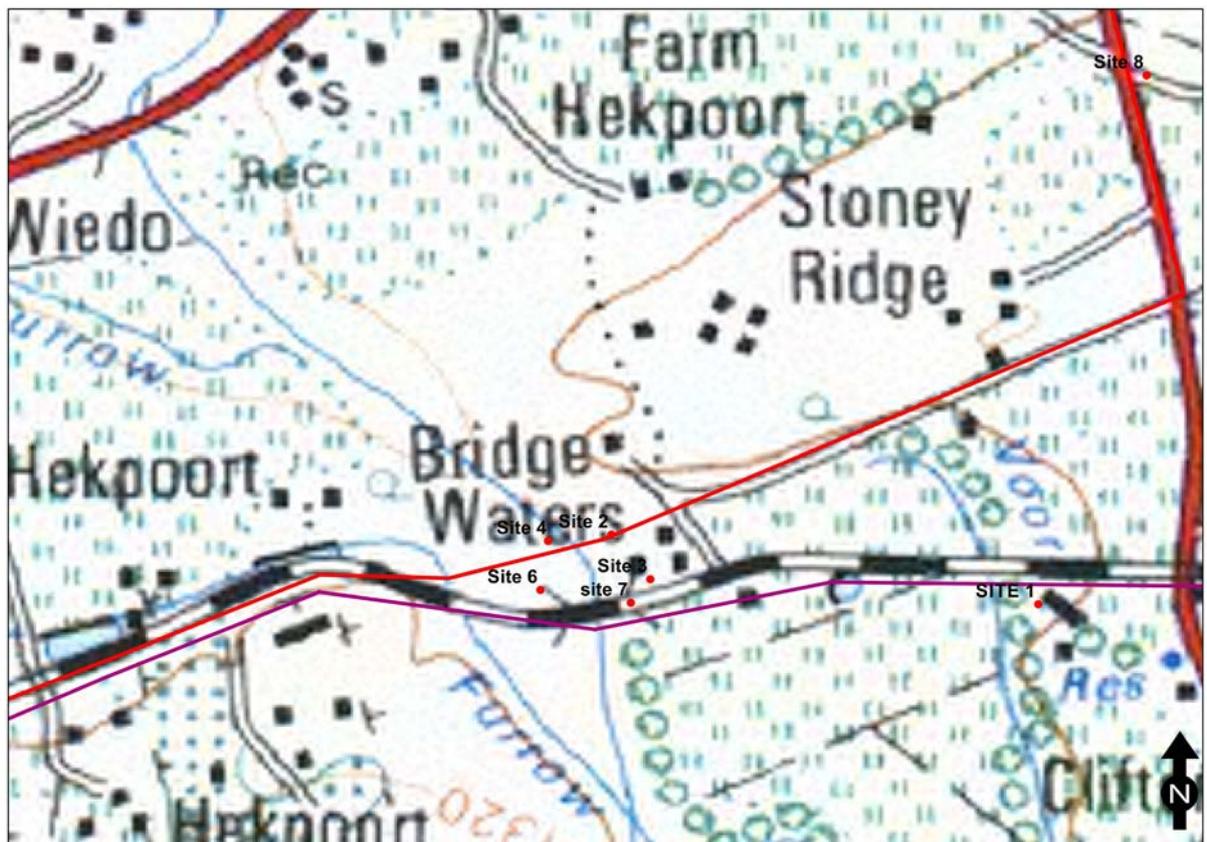


Figure 20: Structures indicated on the 1:50 000 topographic map of the 1980s

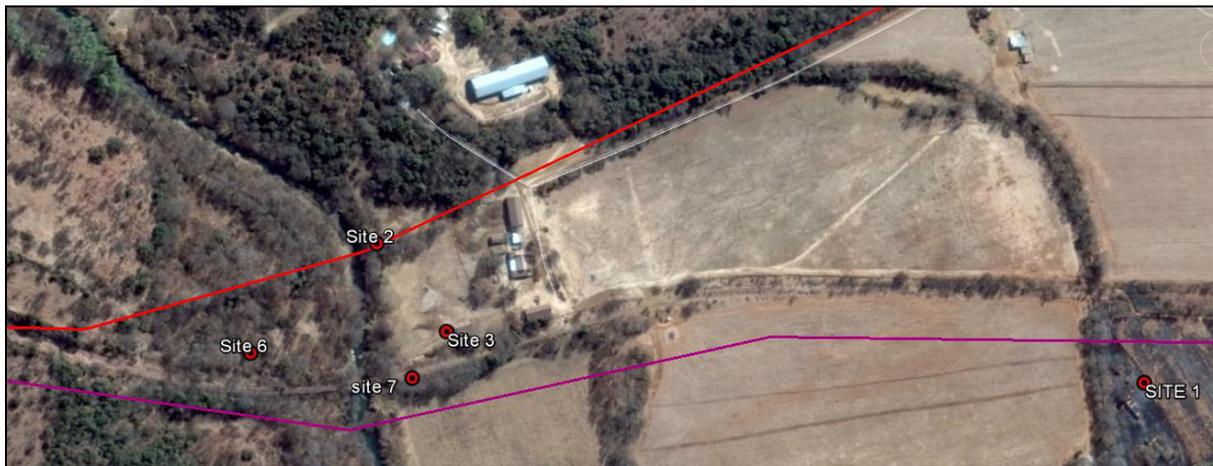


Figure 21: Location of the heritage sites near Bridge Water on the farm Hekpoort 504 JQ

## 8. Summary of Site Locations

Site No	Coordinates
Site 1	27.611636°E 25.904296°S
Site 2	27.605290°E 25.903256°S
Site 3	27.605869°E 25.903921°S
Site 4	27.604350°E 25.903350°S
Site 5	27.619608°E 25.883364°S
Site 6	27.604235°E 25.904083°S
Site 7	27.605580°E 25.904273°S
Site 8	27.613247°E 25.896376°S
Site 9	27.659377°S 25.873923°E
Site 10	27.652171°E 25.877611°S
Site 11	27.634979°E 25.898304°S
Site 12	27.632341°E 25.898935°S
Site 13	27.634245°E 25.900654°S

Table 4: Summary of the site coordinates

## **9. Recommendations and Conclusions**

### ***Archaeological and Historical Structures***

Two Late Iron Age sites were recorded during the survey. Site 1 consists of a surface scatter of slag indicating possible iron or copper smelting in the area. No furnace was recorded. Site 13 is a small stone-walled Late Iron Age settlement. No substantial midden deposits or other cultural remains were recorded in association. These structures are older than 60 years.

A total of five historical buildings and structures (Sites 2, 3, 4, 7, and 8) were recorded. Two of the sites are historically significant as they are linked to early transport networks in the area. Site 7 is the steel bridge over the Magalies River probably dating to the 1910s and Site 8 is the remains of the first road bridge over the same river probably dating to the 1890s and was possibly linked to the postal delivery route to Hekpoort. Site 4 indicates the furrow (canal) network in the areas north and south of the Magalies River that were linked to a local irrigation network and is probably also older than 60 years. Site 3 is a historical farmhouse complex consisting of several buildings associated with the first farming activities at Bridge Waters a portion of the original farm Hekpoort 504 JQ. Site 8 is a historical house that has been extensively renovated and altered and probably dates to the 1950s.

A further significant event is the Battle of Nooitgedacht that took place during the Second Anglo-Boer War (1899 – 1902) which took place in the valley north of Hekpoort on 13 December 1900. However no blockhouses or remains of the skirmish were recorded in the survey area.

### ***Graveyards***

A total of five graveyards (Sites 5, 6, 9, 10 and 11) were recorded during the survey.

However, if the exhumation and reburial of the graveyards is envisaged it will entail social consultation and permit application. Other legislative measures which may be pertinent include the Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925), 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, Ordinance on Exhumations (Ordinance No. 12 of 1980) as well as any local and regional provisions, laws and by-laws that may be in place.

Graves are generally be classified into four categories. These are:

- Graves younger than 60 years;
- Graves older than 60 years, but younger than 100 years;
- Graves older than 100 years; and
- Graves of victims of conflict or of individuals of royal descent

The relocation of the informal settlement will entail a social consultation process.

### ***Conclusion and Recommendations***

Background research confirmed that the farm Hekpoort 504 JQ and surroundings areas are archaeologically and historically significant. Various early Tswana and Nguni groups lived in and traversed the region during the second millennium AD. The first travelers explored the

area in the 1830s and the first farms were surveyed by the 1890s. As a result several cultural heritage sites were recorded.

Based on the assessment, from a heritage perspective, during the construction phase and maintenance of the servitude, the following recommendations are made:

- During the planning and construction phases of the powerline cognisance should be taken of the location of the heritage sites to prevent any impact
- Proactive positioning of powerline pylons will prevent any impact on the sites
- The Proposed Powerline Route running along the existing railway line is the preferred option as a pro-active placement of the pylons will prevent any impact on the recorded heritage sites
- The Powerline 1 Route is the least preferred route as there are extended areas that will need mitigation near the crossing of the Magalies River

However please also note 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)).

## References

- Coetzee, F.P. 2011. Cultural Heritage Survey for the Proposed Human Settlement Project on Portion 1 of the Farm Vogelzang 429 JQ, Hekpoort, Gauteng. Unpublished CRM report.
- Coetzee, F.P. 2012. Cultural Heritage Survey of the Proposed Residential Development on Portion 265 of the Farm Hekpoort 504 JQ, Mogale City Local Municipality. Unpublished CRM report.
- Caruthers, V. 1990. *The Magaliesburg*. Johannesburg: Southern Book Publishers.
- Clarke, A.F. 1978. The Patat Express. *South African Rail*. Vol. 18. No. 2. p. 18.
- Jeppe, F. 1899. Jeppe's map of the Transvaal S.A Republic and surrounding territories. Pretoria: Surveyor General's Office.
- Lederer, P. 1910. *Die Entwicklung der südafrikanischen Union auf verkehrspolitischer Grundlage*. Leipzig: Verlag von Duncker & Humblot.
- Huffman, T.N, 2007. *Handbook to the Iron Age. The Archaeology of Pre-Colonial Farming Societies in Southern Africa*. Pietermaritzburg: University of KwaZulu-Natal Press.
- Mucina, L. & Rutherford, M.C. 2010. The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia 19*. Pretoria: South African National Biodiversity Institute.
- Nock, O.S. 1971. *Railways of the World: Railways of Southern Africa*. London: Adam & Charles Black.
- Pepler-Harcombe, A.M. 2010. *The Context, Classification and Analysis of an Archaeological Surface Collection from the Farm Spokie 428 JQ, Hekpoort, situated in the Magalies Rivier Valley, Gauteng*. Unpublished Honours Project. Pretoria: University of South Africa.
- Rhind, D. & Walker, M. 1996. *Historical Railway Postcards Journeys in Southern Africa*. Cape Town: Michael Walker.
- SAHRIS Website: [www.sahra.org.za](http://www.sahra.org.za) (Accessed September 2014)
- South African. National Heritage Resources Act (NHRA). Act No. 25 of 1999. Government Printer: Pretoria.
- South African Heritage Resources Agency (SAHRA). Report Mapping Project. Version 1.0, 2009
- South Africa, Railways and Harbours Board. 1924 (1948). *Railways and Harbours*. Johannesburg: Publicity Department, South African Railways and Harbours.
- Van der Poel, J. 1933. *Railway and Customs Policies in South Africa 1885 - 1910*. London: Longmans, Green & Co

Wadley, L. 1996. Changes in the social relationships of precolonial hunter-gatherers after agropastoralists contact: An example from the Magaliesberg, South Africa. *Journal of Anthropological Archaeology*. Vol. 15: 205-217.

### 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
Early 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 (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 (Stonewalled settlements)	c. AD 1300 - c. AD 1830s (c. AD 1640 - c. AD 1830s)

#### 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 kill 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 stone-walled enclosures situated on defensive hilltops (c. AD 1640 - AD 1830). This occupation phase has been linked to the arrival of ancestral Northern Sotho, Tswana and Ndebele (Nguni-speakers) 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<sup>th</sup> century settlements with multichrome Moloko pottery (e.g. Buispoort and Uitkomst facies) 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 *mfecane*).

Middle to Late Iron Age sites such as Olifantspoort which dates between AD 1200 and AD 1600 and other sites which are associated with Tswana groups (Bakwena, Bapo and BaFokeng) are well known in the area.

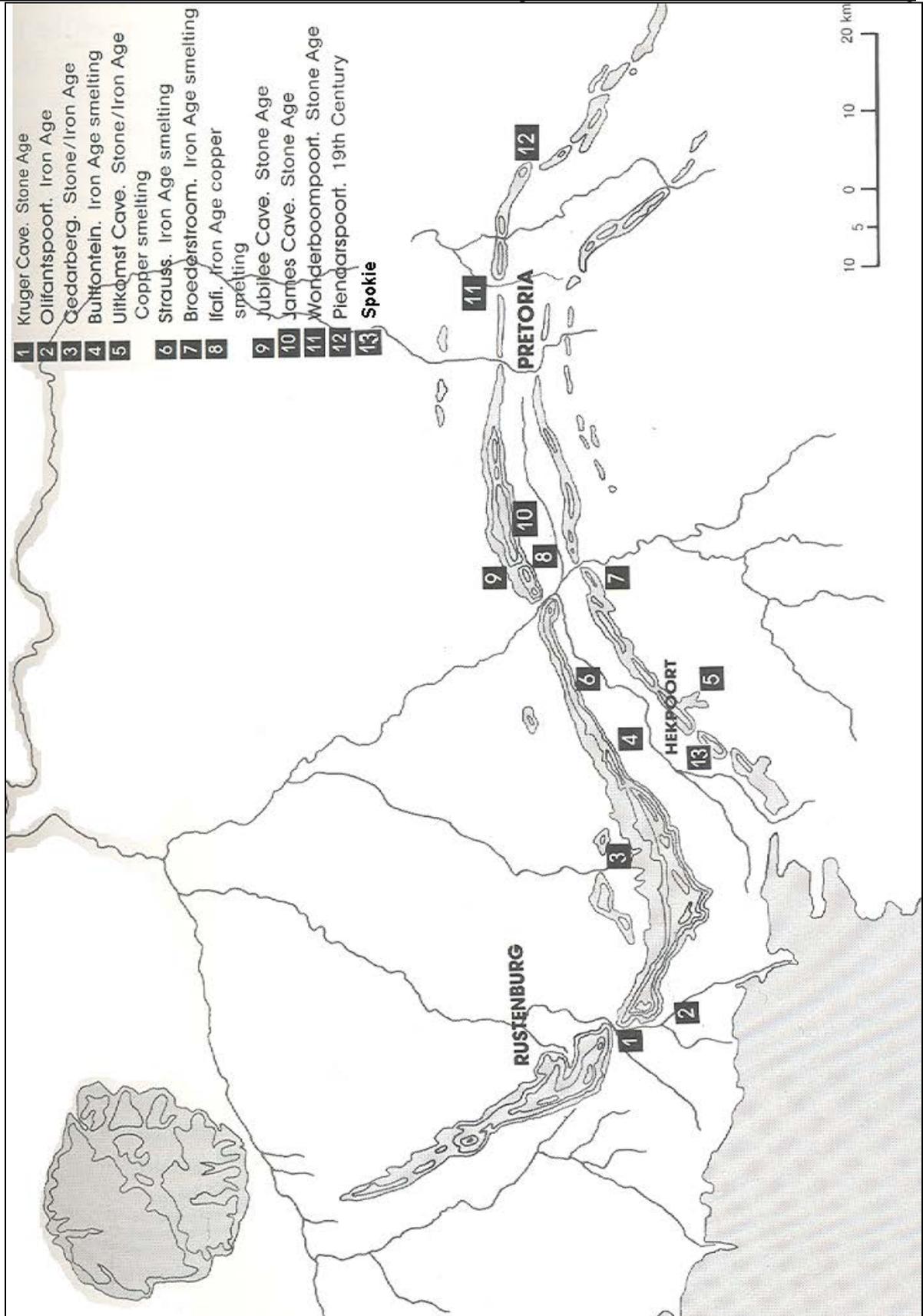


Figure 22: Some of the significant archaeological sites in the Magaliesberg region (Carruthers 1990)

## **Historical Sequence**

### ***General***

Early 19<sup>th</sup> century explorers such as Andrew Smith (1835), Moffat (1829), Cornwallis Harris (1836) traversed the survey area during their ground breaking exploits. Trading, hunting and missionary activities were mostly associated with these pioneers. Voortrekker leaders such as Hendrik Potgieter and S. Erasmus were involved in several skirmishes with Mzilikazi in 1836 and 1837 (Carruthers 1990).

Early towns such as Rustenburg were established in the 1860 and Title Deeds of farms were being registered in the Transvaal. Hekpoort is indicated as a Post Office on Jeppe's map of 1899.

### ***The Battle of Nooitgedacht near Hekpoort***

The biggest and most successful battle for the Boer troops was the battle of Nooitgedacht in the Hekpoort area. General-major RAP Clements had a contingent of 1500 men, 9 canons and over 100 wagons. On the 8th December this large British force was camped at the foot of the Magaliesberg Mountains on the farm, Nooitgedacht. The farm belonged to an English family, who knew the surrounding area well and could supply the British with the necessary intelligence. Clements, however, chose a bad place to set up camp. It was just under the highest peak of the Magaliesberg. He sent an outlook corp and guard of 150 men up a very steep gorge to the top of the mountain, where they took up positions on both sides of the gorge.

General de la Rey and the newly appointed General Jan Smuts noted the setup of the camp and the isolated outlook posts, from their hidden vantage position further west, and made their plans. During this time, General CF Beyers was in charge of the Boer troops in the Northern Transvaal and was busy approaching Bethanie, north of the Magaliesberg. He had 1500 men under his command and thus the Boers jointly had a force greater than that of Clements, something that seldom occurred in the whole of the war.

After his deliberation with De la Rey, Beyers split his force into six commandos, four of which would overcome the guards on the mountain from the west and north-west. These commandos were under the command of Commandants Kemp, Marais, Van Staden and Krause and Beyers himself. Early in the morning of the 13th December they moved up the northern slope of the mountain.

The fifth commando, under commandant Badenhorst went south along the foot of the mountain, to attack the isolated mounted division of Clements' army. The sixth commando waited behind near Breedtsnek, in anticipation of Broadwood who would be returning from Rustenberg.

De la Rey brought his troops near the main force of Clements' troops, whilst Smuts moved to the south east, to cut off Clements' retreat. Beyers' attack is described by many a historical writer as one of the most able and courageous attempts in the war. Due to a lack of natural cover and exhausted after two sleepless days and nights, the troops fell flat on the ground when the British fired at them and for a time ignored their officers' command to attack the

British. By 07:00 the Boers were in control of the mountain and attacked the camp from the cliffs. Pandemonium broke out and although the British mounted troops initially drove Badenhorst back, the entire British contingent fled. Broadwood heard the shooting and heliographed the outlook post to find out what was going on. The Boers, who were now in command of the heliograph on the mountain, answered: "Everything in hand. No help needed." Broadwood's fears therefore were laid to rest. In the meantime, De la Rey hesitantly joined the fight. This was uncharacteristic of De la Rey and it allowed Clements time to get his retreat under control. Smuts' efforts to cut Clements off were also unsuccessful. The Boers, in an undisciplined manner, entered, plundered and set the camp on fire. After the initial loss of a third of his men and nearly all his supplies, Clements escaped via Rietfontein near the Crocodile River to Pretoria.

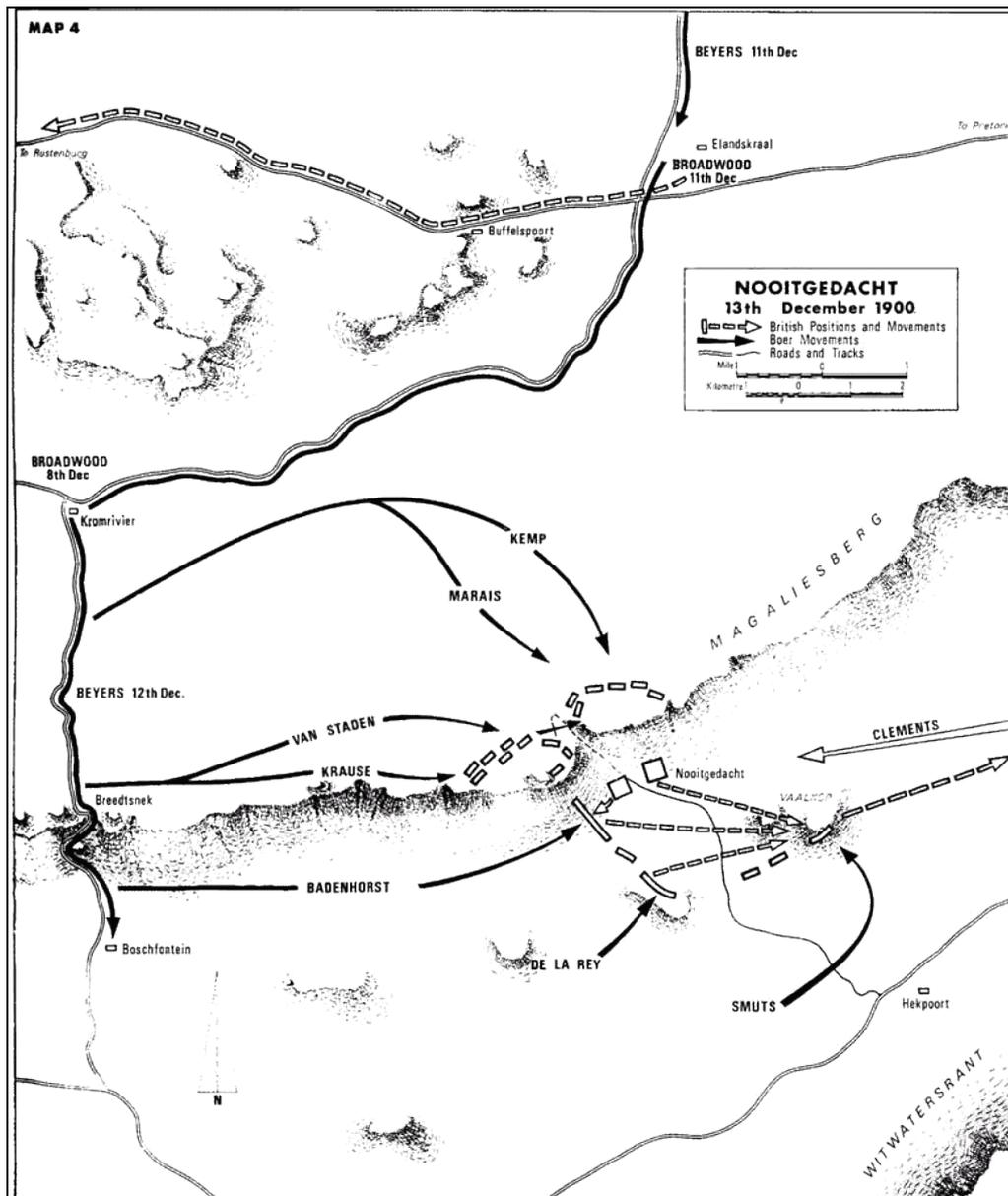


Figure 23: Layout and location of the Battle of Nooitgedacht on 13 December 1900

**Pretoria to Magaliesburg Railway line**

It seems that the Pretoria – Magaliesburg railway line was probably constructed after the Second Anglo-Boer War and possibly opened a few years after the unification of South Africa in 1910.

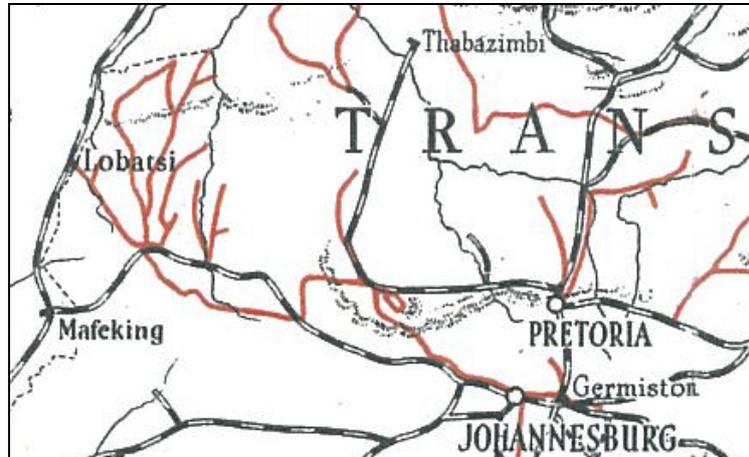


Figure 24: Railway lines and roads published in 1948 (South Africa 1948)



Figure 25: Hekspoort indicated on an early 20th century map (no railway line indicated) (Rhind & Walker 1996)



Figure 26: The Pretoria - Rustenburg railway line as recorded in 1910 with no indication of the Magaliesburg line through Hekpoort (Lederer 1910)

The Pretoria – Magaliesburg railway line was part of a circular track that went through Tarlton, Krugersdorp, Johannesburg, Germiston and then back to Pretoria through Lyttelton. Up to the early 1990s the track was used for goods and passenger trains, but was later closed for commercial use. The train that ran during the 1970s and 1980s from Pretoria (Hercules) and Magaliesburg was known as the Patat Express (Clarke 1978), but is today completely unpassable due to deterioration and track theft. Reefsteamers are currently running the Magaliesburg Express on the line between Johannesburg Park Station and Magaliesburg.

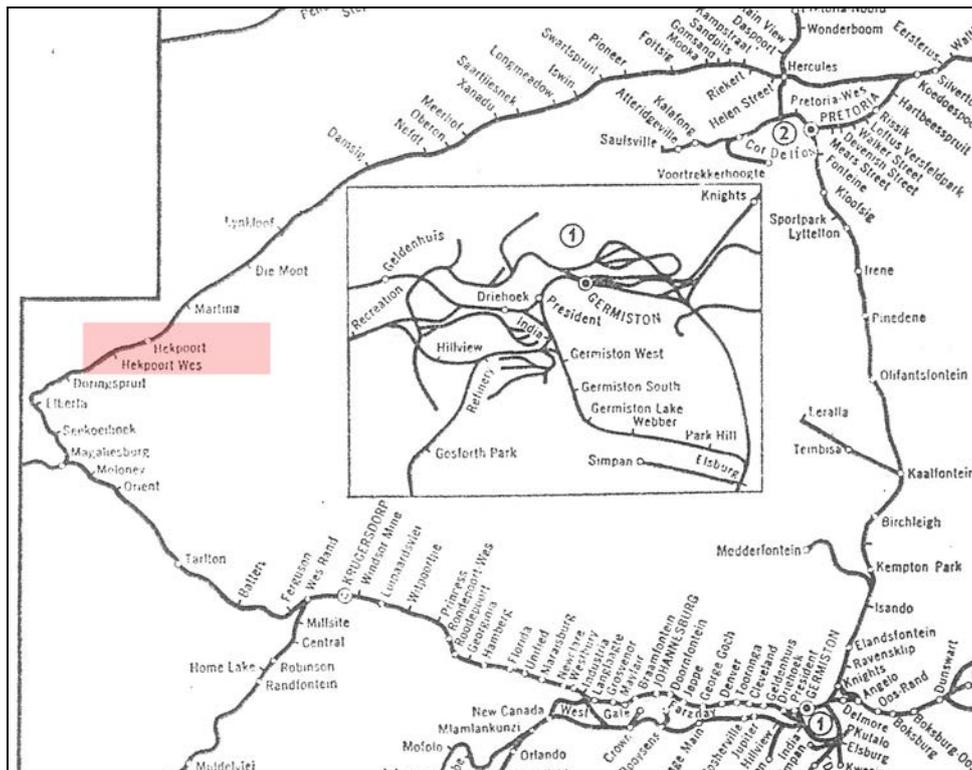
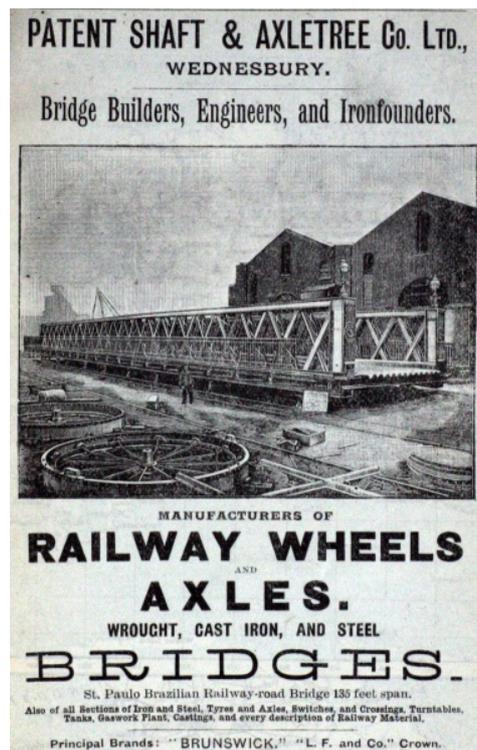


Figure 27: The Pretoria - Magaliesburg railway line as published in 1971 (Nock 1971)

***Patent Shaft and Axletree Company Co Ltd***

The steel bridge over the Magaliesberg River was constructed by Patent Shaft and Axletree Company of Wednesbury, Staffordshire, England and was established in 1840. What is of interest is that the company was involved in the construction of the Tugela River new bridge in South Africa in 1900, which consisted of seven spans of 105 feet each. Also they were building some of the largest bridges in the world, amongst others the Benares Bridge over the Ganges and the Colenso and Frere Bridge (seven spans) in Natal which held the record for rapid construction. In 1951 the company was Nationalised under the Iron and Steel Act and became part of the Iron and Steel Corporation of Great Britain.

So it seems the company became active in South Africa early in the 19<sup>th</sup> century and probably constructed the bridge over the Magaliesberg River near Hekpoort in the 1910s.



**Addendum 2: Description of Sites****Site 1**

<b>A. GENERAL SITE DESCRIPTION</b>				
The site comprises the remains of several square multi-room brick structures (houses). The structures probably functioned as worker accommodation but they have all been partly demolished. These structures are probably not older than 60 years and are therefore not protected by the NHRA (Act No. 25 of 1999).				
<b>B. SITE EVALUATION</b>				
<b>B1. HERITAGE VALUE</b>			<b>Yes</b>	<b>No</b>
<b>Historic Value</b>				
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.				√
<b>Aesthetic Value</b>				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				√
<b>Scientific Value</b>				
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.				√
<b>Social Value</b>				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				√
<b>Tourism Value</b>				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				√
<b>Rarity Value</b>				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				√
<b>Representative Value</b>				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				√
<b>B2. REGIONAL CONTEXT</b>				
Other similar sites in the regional landscape.			√	
<b>B3. CONDITION OF SITE</b>				
Integrity of deposits/structures.		Unstable, partly destroyed		
<b>C. SPHERE OF SIGNIFICANCE</b>		<b>High</b>	<b>Medium</b>	<b>Low</b>
International				
National				

Provincial			
Local			
Specific community			
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• None</li> </ul>			
<b>I. PHOTOGRAPHS</b>			
			
<p><b>Figure 28: Detail view of several demolished structures (houses) situated north of the railway track</b></p>			

<b>A. GENERAL SITE DESCRIPTION</b>				
The site comprises the remains of a bridge that was part of the old access road to Hekpoort. The road could probably be the old postal road that is indicated on the 1899 Jeppe Map and could date to the late 19 <sup>th</sup> century. The bridge remains consist of the main support structure which was built of dressed black granite. Two sides of the upper support structure are still remains on the eastern side of the Magalies River. The bridge structures on the western bank were washed away with the 100 year floods in 2000. The portion of the farm in known as Bridge Waters and the existing access road is probably aligned with the old postal road. The road probably predates the railway bridge (Site 7) situated a few hundred metres to the south.				
<b>B. SITE EVALUATION</b>				
<b>B1. HERITAGE VALUE</b>			<b>Yes</b>	<b>No</b>
<b>Historic Value</b>				
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.				√
<b>Aesthetic Value</b>				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				√
<b>Scientific Value</b>				
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.				√
<b>Social Value</b>				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				√
<b>Tourism Value</b>				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				√
<b>Rarity Value</b>				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				√
<b>Representative Value</b>				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				√
<b>B2. REGIONAL CONTEXT</b>				
Other similar sites in the regional landscape.			√	
<b>B3. CONDITION OF SITE</b>				
Integrity of deposits/structures.		Unstable		
<b>C. SPHERE OF SIGNIFICANCE</b>		<b>High</b>	<b>Medium</b>	<b>Low</b>
International				√

National			√
Provincial		√	
Local		√	
Specific community		√	
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			√
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 35)</li> </ul>			
<b>I. PHOTOGRAPHS</b>			
			

**Figure 29: General view of the dilapidated multi-room house****Site 3****A. GENERAL SITE DESCRIPTION**

The site comprises the original farmhouse and associated outbuildings of Water Bridge farm. The old farmhouse was probably built in the 1940 but it has recently been upgraded and altered to serve as accommodation for farmworkers. As a result several sections were added to the original house. The main associated structure is a barn for drying tobacco. This brick and cement shed with a corrugated iron roof. It has an elevated ceiling and was probably used during the 1950s and 1960s tobacco farming that took place in the area. The structure is currently used as stable facility for the breeding of horses. Most of the structures at this farmhouse complex date to the 1940s and are older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).

**B. SITE EVALUATION****B1. HERITAGE VALUE****Historic Value**

	Yes	No
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.		√
<b>Aesthetic Value</b>		
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√
<b>Scientific Value</b>		
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		√

**Aesthetic Value****Scientific Value**

achievement at a particular period.			
It has importance to the wider understanding of the temporal change of cultural landscapes, settlement patterns and human occupation.			√
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.	Stable, occupied		
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local			√
Specific community		√	
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			√
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 34)</li> </ul>			

## I. PHOTOGRAPHS



Figure 30: General view of the dilapidated multi-room house



### Site 4

#### A. GENERAL SITE DESCRIPTION

The site comprises a section of the furrow (canal) system that feeds off the Magalies River. On the 1980s topographical map of the area at least two furrow systems are clearly indicated. Water was managed with a system of sluices as indicated in the photos below. One going off the north-west and the other going to the south. According to oral histories of the area they were used for several decades as part of an elaborate irrigation scheme in the region. As such they might even date to the 1940s and 1950s. As such the furrow systems are regarded as older than

60 years and are therefore protected by the NHRA (Act No. 25 of 1999).				
<b>B. SITE EVALUATION</b>				
<b>B1. HERITAGE VALUE</b>			<b>Yes</b>	<b>No</b>
<b>Historic Value</b>				
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.				√
<b>Aesthetic Value</b>				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				√
<b>Scientific Value</b>				
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.				√
<b>Social Value</b>				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				√
<b>Tourism Value</b>				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				√
<b>Rarity Value</b>				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				√
<b>Representative Value</b>				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				√
<b>B2. REGIONAL CONTEXT</b>				
Other similar sites in the regional landscape.			√	
<b>B3. CONDITION OF SITE</b>				
Integrity of deposits/structures.		Unstable		
<b>C. SPHERE OF SIGNIFICANCE</b>		<b>High</b>	<b>Medium</b>	<b>Low</b>
International				√
National				√
Provincial				√
Local			√	
Specific community			√	
<b>D. FIELD REGISTER RATING</b>				
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]	
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>	
Low	
Medium	√
High	
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>	
None	√
Peripheral	
Destruction	
Uncertain	
<b>G. RECOMMENDED MITIGATION</b>	
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>	
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>	
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 34)</li> </ul>	
<b>I. PHOTOGRAPHS</b>	
	
<p><b>Figure 31: Start of the canal (furrow) off the Magalies River with sluice opening clearly visible</b></p>	

### Site 5

<b>A. GENERAL SITE DESCRIPTION</b>		
<p>The site comprises a graveyard which contains approximately 30 graves. They are all arranged in an east-west orientation with the headstone on the western side. Most of the graves are demarcated with stones, but there are also granite and cement headstones and bases.</p> <p>Please take note than unmarked graves are be default regarded as older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).</p>		
<b>B. SITE EVALUATION</b>		
<b>B1. HERITAGE VALUE</b>	<b>Yes</b>	<b>No</b>

<b>Historic Value</b>			
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.			√
<b>Aesthetic Value</b>			
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.			√
<b>Scientific Value</b>			
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.			√
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.	Stable		
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			

Medium	
High	√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>	
None	√
Peripheral	
Destruction	
Uncertain	
<p><b>G. RECOMMENDED MITIGATION</b></p> <ul style="list-style-type: none"> <li>• The graveyard should be fenced off with an access gate installed</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul> <p>If the graves are to be exhumed and reburied it will entail a Phase 2 investigation with a social consultation process and the application of the required permits.</p>	
<p><b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b></p> <ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 36)</li> <li>• Regulations Relating to the Management of Human Remains, in terms of the National Health Act No. 61 of 2003</li> <li>• Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)</li> <li>• Ordinance on Exhumations (Ordinance No. 12 of 1980)</li> <li>• Local and regional provisions, laws and by-laws</li> <li>• Permit from SAHRA</li> </ul>	
<b>I. PHOTOGRAPHS</b>	



Figure 32: General view of the graveyard

## Site 6

### A. GENERAL SITE DESCRIPTION

The site comprises a graveyard which contains approximately 30 graves. They are all arranged in an east-west orientation with the headstone on the western side. Most of the graves are demarcated with stones indicating the headstones and bases.

Please take note that unmarked graves are by default regarded as older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).

### B. SITE EVALUATION

#### B1. HERITAGE VALUE

##### Historic Value

	Yes	No
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.		√
<b>Aesthetic Value</b>		
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√

<b>Scientific Value</b>			
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.			√
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.		Stable	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			
High			√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>The graveyard should be fenced off with an access gate installed</li> </ul>			

- Proactive positioning of powerline pylon to avoid any impact on the site

If the graves are to be exhumed and reburied it will entail a Phase 2 investigation with a social consultation process and the application of the required permits.

#### **H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS**

- National Heritage Resources Act (Act No. 25 of 1999, Section 36)
- Regulations Relating to the Management of Human Remains, in terms of the National Health Act No. 61 of 2003
- Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)
- Ordinance on Exhumations (Ordinance No. 12 of 1980)
- Local and regional provisions, laws and by-laws
- Permit from SAHRA

#### **I. PHOTOGRAPHS**



**Figure 33: General view of the graveyard (graves indicated with stone-packed bases)**

#### **Site 7**

#### **A. GENERAL SITE DESCRIPTION**

The site comprises a steel and concrete bridge that was constructed by Patent Shaft and Axletree Company of Wednesbury, England. The plaque on the bridge indicate a date of 1889 but the bridge was probably first imported in kit (pre-constructed) form and possibly only constructed after the 1910 unification. The bridge is part of the Pretoria to Magaliesburg via Krugersdorp back to Johannesburg railway line. The bridge has a total length of roughly 100 metres and crosses the Magalies River. The railway line is not currently in use and some of the tracks and support structures are being vandalised. The bridge is historically important due to its construction history and historical association with the region. The railway line and the Hekpoort railway bridge are also probably more than 100 years old.

#### **B. SITE EVALUATION**

##### **B1. HERITAGE VALUE**

Yes	No
-----	----

<b>Historic Value</b>			
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.			√
<b>Aesthetic Value</b>			
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.			√
<b>Scientific Value</b>			
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.	√		
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).	√		
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.	√		
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.		Stable, vandalised	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National		√	
Provincial		√	
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			

Medium	
High	√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>	
None	√
Peripheral	
Destruction	
Uncertain	
<b>G. RECOMMENDED MITIGATION</b>	
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>	
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>	
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 35)</li> </ul>	
<b>I. PHOTOGRAPHS</b>	
	
<p><b>Figure 34: General view of the steel bridge</b></p>	



Figure 35: Internal view of the steel bridge

## Site 8

### A. GENERAL SITE DESCRIPTION

The site comprises a multi-room brick and cement house with a corrugated iron roof. The house have been altered and expanded during more recent times. The structure probably dates to the 1950s. It is currently occupied and no other associated structures were recorded. The house is located adjacent to the R563.

### 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).		√
--	--	---

<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.	Stable, Occupied		
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local			√
Specific community			v
<b>D. FIELD REGISTER RATING</b>			
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]			√
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			√
Medium			
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 34)</li> </ul>			
<b>I. PHOTOGRAPHS</b>			



Figure 36: General view of the historical house next to the R563

## Site 9

### A. GENERAL SITE DESCRIPTION

The site comprises a graveyard which contains approximately 3 graves. They are all arranged in an east-west orientation with the headstone on the western side. The graves are demarcated with granite and cement headstones and bases.

The following inscriptions could be recorded:

- Elsie Francina Kruger

Please take note than unmarked graves are by default regarded as older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).

### B. SITE EVALUATION

<b>B1. HERITAGE VALUE</b>	<b>Yes</b>	<b>No</b>
<b>Historic Value</b>		
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.		√
<b>Aesthetic Value</b>		
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√
<b>Scientific Value</b>		
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.		√
<b>Social Value</b>		

It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.	Stable		
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			
High			√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			
Peripheral			√
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• The graveyard should be fenced off with an access gate installed</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
If the graves are to be exhumed and reburied it will entail a Phase 2 investigation with a social consultation process and the application of the required permits.			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 36)</li> <li>• Regulations Relating to the Management of Human Remains, in terms of the National</li> </ul>			

Health Act No. 61 of 2003

- Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)
- Ordinance on Exhumations (Ordinance No. 12 of 1980)
- Local and regional provisions, laws and by-laws
- Permit from SAHRA

## I. PHOTOGRAPHS



Figure 37: General view of the graveyard

### Site 10

#### A. GENERAL SITE DESCRIPTION

The site comprises a graveyard which contains approximately 8 graves. They are all arranged in an east-west orientation with the headstone on the western side. Most of the graves are demarcated with stones, but there are also cement headstones and bases.

Please take note that unmarked graves are by default regarded as older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).

#### 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.		√
<b>Social Value</b>		
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).		√
<b>Tourism Value</b>		
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.		√
<b>Rarity Value</b>		
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.		√
<b>Representative Value</b>		
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.		√
<b>B2. REGIONAL CONTEXT</b>		
Other similar sites in the regional landscape.	√	
<b>B3. CONDITION OF SITE</b>		
Integrity of deposits/structures.	Stable	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>
International		√
National		√
Provincial		√
Local	√	
Specific community	√	
<b>D. FIELD REGISTER RATING</b>		
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]		
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>		
Low		
Medium		
High		√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>		
None		
Peripheral		√
Destruction		
Uncertain		
<b>G. RECOMMENDED MITIGATION</b>		
<ul style="list-style-type: none"> <li>The graveyard should be fenced off with an access gate installed</li> <li>Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>		

If the graves are to be exhumed and reburied it will entail a Phase 2 investigation with a social consultation process and the application of the required permits.

#### H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS

- National Heritage Resources Act (Act No. 25 of 1999, Section 36)
- Regulations Relating to the Management of Human Remains, in terms of the National Health Act No. 61 of 2003
- Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)
- Ordinance on Exhumations (Ordinance No. 12 of 1980)
- Local and regional provisions, laws and by-laws
- Permit from SAHRA

#### I. PHOTOGRAPHS



Figure 38: General view of the graveyard

#### Site 11

##### A. GENERAL SITE DESCRIPTION

The site comprises a graveyard which contains approximately 6 graves. They are all arranged in an east-west orientation with the headstone on the western side. Most of the graves are demarcated with stones.

Please take note that unmarked graves are by default regarded as older than 60 years and are therefore protected by the NHRA (Act No. 25 of 1999).

##### B. SITE EVALUATION

###### B1. HERITAGE VALUE

Yes	No
-----	----

<b>Historic Value</b>			
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.			√
<b>Aesthetic Value</b>			
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.			√
<b>Scientific Value</b>			
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.			√
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.		√	
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.		Stable	
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local	√		
Specific community	√		
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			

Medium	
High	√
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>	
None	√
Peripheral	
Destruction	
Uncertain	
<b>G. RECOMMENDED MITIGATION</b> <ul style="list-style-type: none"> <li>• The graveyard should be fenced off with an access gate installed</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul> <p>If the graves are to be exhumed and reburied it will entail a Phase 2 investigation with a social consultation process and the application of the required permits.</p>	
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b> <ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 36)</li> <li>• Regulations Relating to the Management of Human Remains, in terms of the National Health Act No. 61 of 2003</li> <li>• Removal of Graves and Dead Bodies Ordinance (Ordinance No. 7 of 1925)</li> <li>• Ordinance on Exhumations (Ordinance No. 12 of 1980)</li> <li>• Local and regional provisions, laws and by-laws</li> <li>• Permit from SAHRA</li> </ul>	

## Site 12

<b>A. GENERAL SITE DESCRIPTION</b>		
<p>The site comprises a deposit of metal slag (probably iron) which indicates the location of a possible Iron Age smelting site. However, no smelting kiln or smithing forge was recorded during the survey. Also note that this site was recorded in an agricultural field that is ploughed every season. The site is only 2 metres in diameter.</p>		
<b>B. SITE EVALUATION</b>		
<b>B1. HERITAGE VALUE</b>	<b>Yes</b>	<b>No</b>
<b>Historic Value</b>		
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.		√
<b>Aesthetic Value</b>		
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.		√
<b>Scientific Value</b>		
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.	√		
<b>Social Value</b>			
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).			√
<b>Tourism Value</b>			
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.			√
<b>Rarity Value</b>			
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.			√
<b>Representative Value</b>			
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.			√
<b>B2. REGIONAL CONTEXT</b>			
Other similar sites in the regional landscape.	√		
<b>B3. CONDITION OF SITE</b>			
Integrity of deposits/structures.	Stable		
<b>C. SPHERE OF SIGNIFICANCE</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
International			√
National			√
Provincial			√
Local		√	
Specific community		√	
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			√
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 35)</li> </ul>			

## Site 13

<b>A. GENERAL SITE DESCRIPTION</b>				
The site comprises a small stone-walled Late Iron Age settlement that consists of several enclosures with a scalloped outer wall. No house remains or middens were recorded. The walls are roughly 1 metres in height but mostly dilapidated. The site is roughly 25 x 30 metres in extent and probably dated to an early 19 <sup>th</sup> century occupation.				
<b>B. SITE EVALUATION</b>				
<b>B1. HERITAGE VALUE</b>			<b>Yes</b>	<b>No</b>
<b>Historic Value</b>				
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.				√
<b>Aesthetic Value</b>				
It has importance in exhibiting particular aesthetic characteristics valued by a particular community or cultural group.				√
<b>Scientific Value</b>				
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.			√	
<b>Social Value</b>				
It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons (sense of place).				√
<b>Tourism Value</b>				
It has significance through its contribution towards the promotion of a local sociocultural identity and can be developed as tourist destination.				√
<b>Rarity Value</b>				
It possesses unique, uncommon, rare or endangered aspects of South Africa's natural or cultural heritage.				√
<b>Representative Value</b>				
It is importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.				√
<b>B2. REGIONAL CONTEXT</b>				
Other similar sites in the regional landscape.			√	
<b>B3. CONDITION OF SITE</b>				
Integrity of deposits/structures.		Stable		
<b>C. SPHERE OF SIGNIFICANCE</b>		<b>High</b>	<b>Medium</b>	<b>Low</b>
International				√
National				√

Provincial			√
Local		√	
Specific community		√	
<b>D. FIELD REGISTER RATING</b>			
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]			
<b>E. GENERAL STATEMENT OF SITE SIGNIFICANCE</b>			
Low			
Medium			√
High			
<b>F. RATING OF POTENTIAL IMPACT OF DEVELOPMENT</b>			
None			√
Peripheral			
Destruction			
Uncertain			
<b>G. RECOMMENDED MITIGATION</b>			
<ul style="list-style-type: none"> <li>• Please note location of site during construction phase</li> <li>• Proactive positioning of powerline pylon to avoid any impact on the site</li> </ul>			
<b>H. APPLICABLE LEGISLATION AND LEGAL REQUIREMENTS</b>			
<ul style="list-style-type: none"> <li>• National Heritage Resources Act (Act No. 25 of 1999, Section 35)</li> </ul>			

**Addendum 3: Surveyor General Farm Diagram**

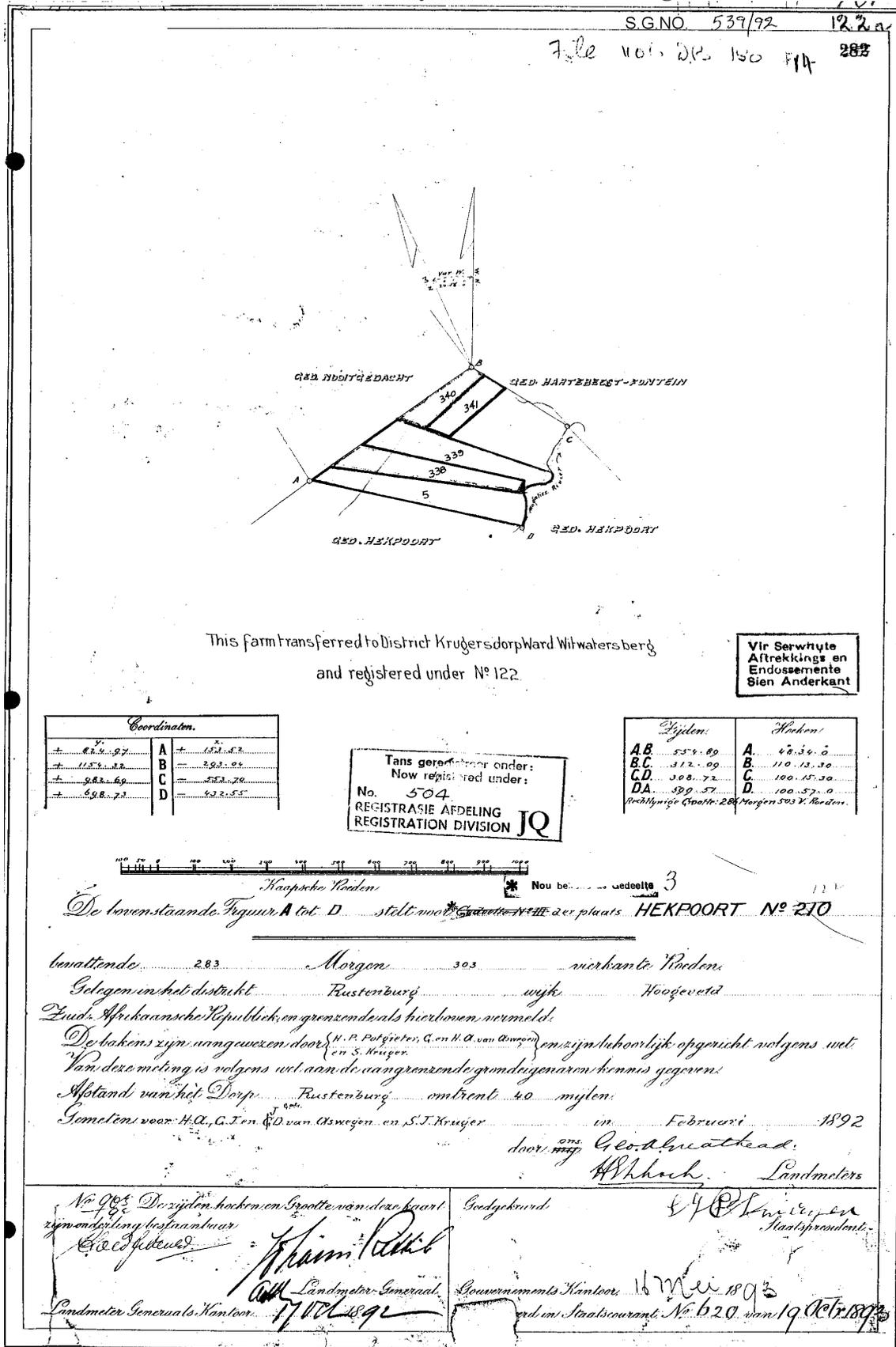


Figure 39: Surveyor General's map of Portion 3 of the farm Hekpoort 504 JQ, first surveyed in 1892