



Archaetnos Culture & Cultural  
Resource Consultants  
BK 98 09854/23

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**A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR A  
PROPOSED DEVELOPMENT OF AN INLAND DIESEL WHOLESALE DEPOT  
INCLUDING A TRANSPORTATION PIPELINE ON PORTION 5 OF THE FARM  
FRANSHOEK 1861, SWINBURNE, FREE STATE PROVINCE**

For:

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**REPORT NO.: AE01925V**

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***10 June 2019***

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## **SUBMISSION OF REPORT**

**Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.**

**It is the client's responsibility to do the submission via the SAHRIS System on the SAHRA website.**

**Clients are advised not to proceed with any action before receiving the necessary comments from SAHRA.**

## **DISCLAIMER**

**Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.**

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**Any changes to the scope of a project will require an additional appointment.**

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## EXECUTIVE SUMMARY

Archaetnos cc was requested by Spatial Solutions Incorporated to conduct a cultural heritage impact assessment (HIA) for a proposed development of an inland diesel wholesale depot including a transportation pipeline on portion 5 of the farm Franshoek 1861, Swinburne. This is in Thabo Mofutsanyana Municipal District and the Maluti-a-Phofung Local Municipality in the Free State Province.

The methodology for the study includes a survey of literature and a field survey. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

During the survey no site of cultural heritage significance was identified.

The following is recommended:

- Since nothing of heritage importance was identified, this report is seen as ample mitigation.
- A visual impact assessment is probably not needed since most of the infrastructure will be below ground and since nothing of cultural importance was identified
- No buffer zones or areas to be avoided are needed.
- The project may continue, and authorization may be granted, but only after receiving comments from either the Provincial Heritage Resources Authority of the Free State or SAHRA.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

## CURRICULUM VITAE

**Prof. Anton Carl van Vollenhoven**

### PERSONAL INFORMATION

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### TERTIARY EDUCATION

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- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
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- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

### EMPLOYMENT HISTORY

- *1988-1991*: Fort Klapperkop Military Museum - Researcher
- *1991-1999*: National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002*: City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- *2002-2007*: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- *August 2007* – present – Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- *2014-2015*: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *Since 2015*: Extraordinary Professor of History at the Mahikeng campus of the Northwest University

### **OTHER**

- Has published 34 peer-reviewed and 42 popular articles.

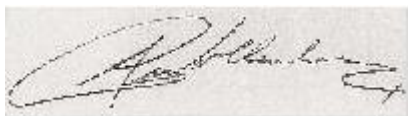
- He has written 11 books/book contributions/conference proceedings .
- Has been the author and co-author of over 911 unpublished reports on cultural resources surveys and archaeological work.
- Has delivered more than 72 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 – 2006.
- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014; 2018-2020).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Editorial member of various scientific journals.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2019).

A list of reports can be viewed on [www.archaetnos.co.za](http://www.archaetnos.co.za).

## DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Signed:



Date: 10 June 2019

## LIST OF ACRONYMS:

AIA – Archaeological Impact Assessment  
 CMP – Cultural Management Plan  
 EAP – Environmental Assessment Practitioner  
 EIA – Environmental Impact Assessment  
 HIA – Heritage Impact Assessment  
 PIA – Palaeontological Impact Assessment  
 SAHRA – South African Heritage Resources Agency

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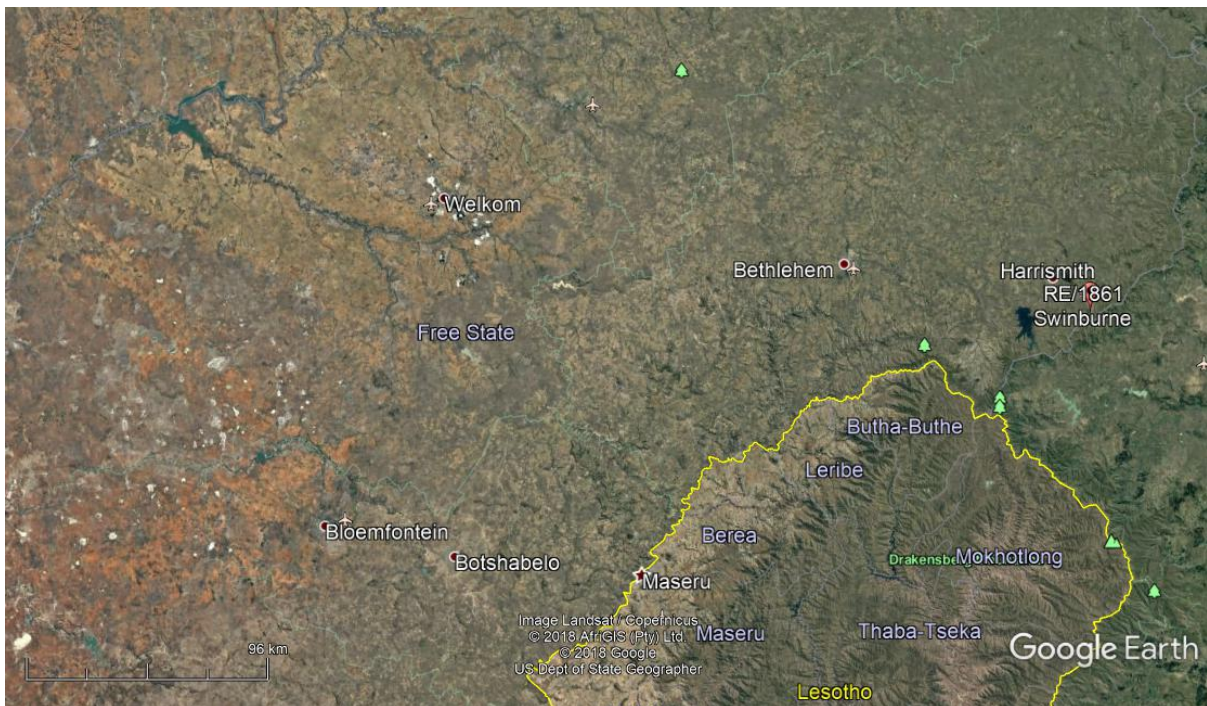
## 1. INTRODUCTION

Archaetnos cc was requested by Spatial Solutions Incorporated to conduct a cultural heritage impact assessment (HIA) for a proposed development of an inland diesel wholesale depot including a transportation pipeline on portion 5 of the farm Franshoek 1861, Swinburne. This is in Thabo Mofutsanyana Municipal District and the Maluti-a-Phofung Local Municipality in the Free State Province (Figure 1-3). A central coordinate for the development is: 28° 20' 24.33"S; 29° 16' 20.80"E.

The study currently is in its scoping phase. Di-Thabeng Wholesale Fuels (hereafter referred to as the client), has been in operation since 1995, with the head office located in Clocolan Free State. The client always envisioned establishing an Inland Wholesale Depot adjacent to the N3 highway leading from Durban, as diesel are shipped and delivered within the Durban harbour. A transportation pipeline is also envisioned in the proposed development as a railway line traverses the southern border of the property. The client purchased the Farm Franshoek No. 1861 (hereafter referred to as the property) in 2018 and wish to develop a fully functioning inland diesel depot.

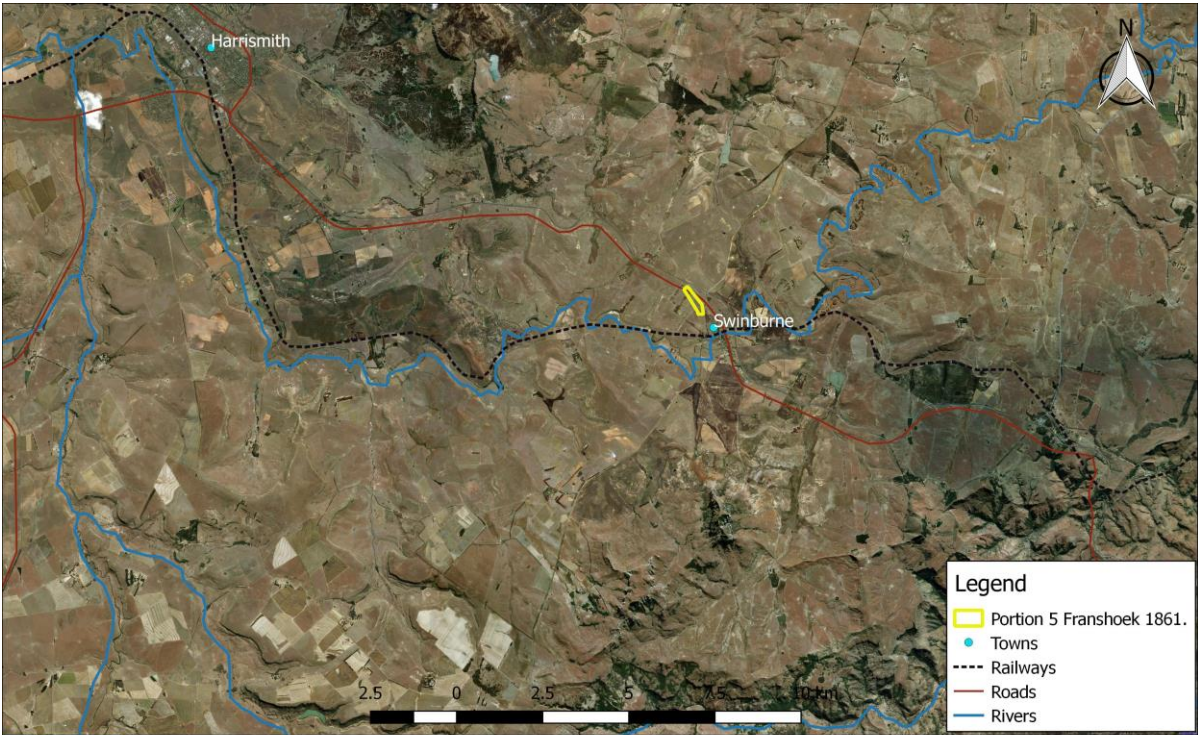
Currently the property is utilised as a parking area for transportation vehicles. A small section of land has been cleared (less than 1ha) and one (1) diesel tank of 46 m<sup>3</sup> has been erected for the personal use of the client.

The client indicated the areas to be surveyed and the survey was confined to these. It was done via foot.



**Figure 1: Location of Swinburne in the Free State Province. North reference is to the top.**





Locality Map:  
Portion 5 of the Farm Franshoek No. 1861, Swinburne, Free State.

**Figure 2: Location of the site in relation to Swinburne (Spatial Solutions Inc.)**



**Figure 3: Map indicating the location of the site (Platinum Town Planners).**

## **2. TERMS OF REFERENCE**

The Terms of Reference for the survey were to:

1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Determine if a visual impact assessment will be required
3. Document the found cultural heritage sites according to best practice standards for heritage related studies.
4. Study background information on the area to be developed.
5. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
6. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
7. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
8. Review applicable legislative requirements.

## **3. CONDITIONS & ASSUMPTIONS**

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been

recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.

#### **4. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

##### **4.1 The National Heritage Resources Act**

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The national estate (see Appendix D) includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Archaeological and paleontological importance

- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment only looks at archaeological resources and can only be done by a professional archaeologist.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)<sup>1</sup>, should be done by a professional palaeontologist.

The different phases during the HIA process are described in Appendix E. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

### **Structures**

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

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

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<sup>1</sup> Please consult SAHRA to determine whether a PIA is necessary.

### **Archaeology, palaeontology and meteorites**

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

### **Human remains**

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Exhumations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act (Act 61 of 2003)**.

#### **4.2 The National Environmental Management Act**

This act (Act 107 of 1998) states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

### **5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE**

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities. This is done by clients abiding to the law and having heritage surveys done in order to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians).

Possible chance finds, encountered during the project development, also need to be managed by not disturbing such finds and by having them assessed by professionals. Impacts on the cultural heritage should be minimized. This include



the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location.

When cultural historical and archaeological artifacts and structures need to be removed it should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be engaged in. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

## **6. METHODOLOGY**

### **6.1 Survey of literature**

A survey of literature was undertaken in order to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

### **6.2 Field survey**

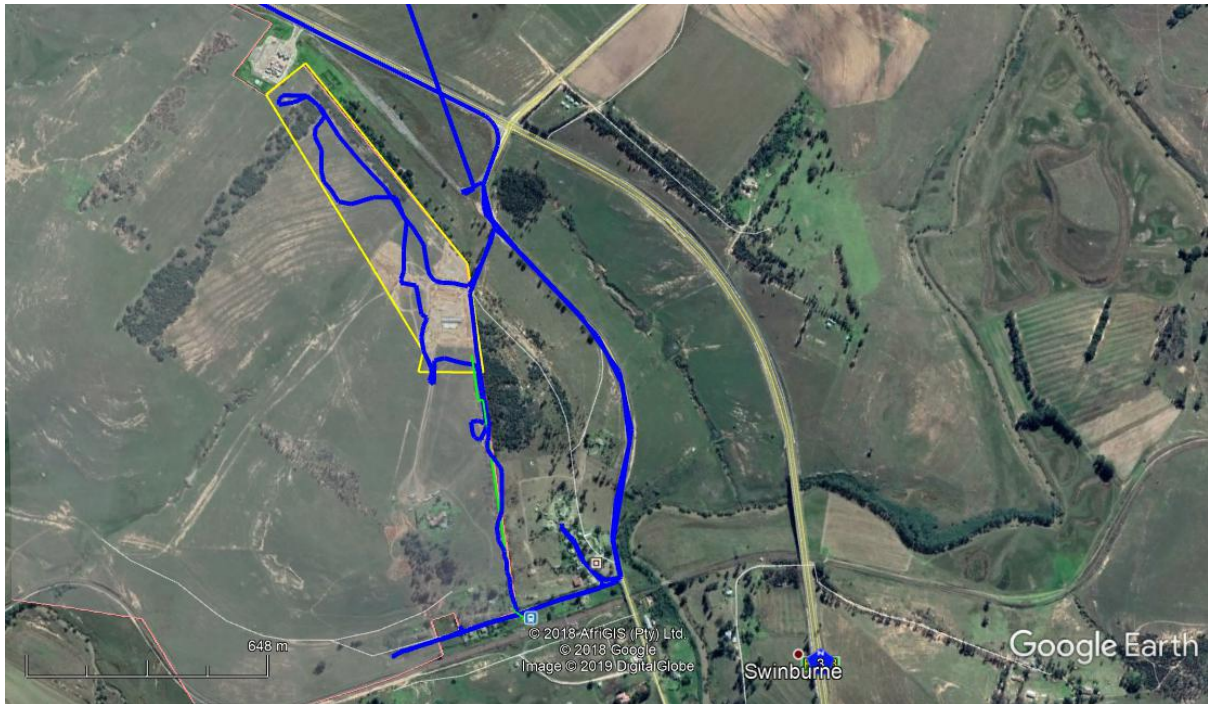
The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)<sup>2</sup>, while photographs were also taken where needed. The survey was undertaken by doing a physical survey on foot and covered as much as possible of the area to be studied (Figure 4).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The field work and report were done in June 2019. The size of the surveyed area is approximately 15,25 Ha and the survey took 2 hours to complete.

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<sup>2</sup> A Garmin Oregon 550 with an accuracy factor of a few meters.



**Figure 4: GPS track of the surveyed area. North reference is to the top.**

### **6.3 Oral histories**

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

### **6.4 Documentation**

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

### **6.5 Evaluation of Heritage sites**

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)



- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

## 7. DESCRIPTION OF THE ENVIRONMENT

The area that was surveyed is located on the Free State Highveld and within the foothills of the Drakensberg Mountains. It shows typical Highveld characteristics, including grassland with isolated trees (Figure 5-6). The route for the pipeline runs through a disturbed area, consisting of weeds and other pioneer species as well as alien trees (Figure 7). The area where the depot is planned is entirely disturbed, except for a small section with natural grassland. Disturbance includes old agricultural fields (Figure 8) and earthwork activities (Figure 9).

One building is found in the surveyed area, but it has no heritage significance (Figure 10). The vegetation cover is reasonably dense, but low and thus the vertical archaeological visibility is reasonably good, with the horizontal archaeological visibility a bit worse.

The topography of the surveyed area is fairly flat, with a fall towards the south to a river, outside of the study area.



**Figure 5: General view of the surveyed area.**



**Figure 6: Blue gum trees along the proposed route for the pipeline.**



**Figure 7: Disturbed area along the pipeline route.**





**Figure 8: Old fields in the surveyed area.**



**Figure 9: Earthwork activities on site.**



**Figure 10: Building and other infrastructure on site.**

## **8. HISTORICAL CONTEXT**

No sites of cultural heritage significance were located within the surveyed area during the survey. Some background information is however given in order to place the surveyed area in a historical context and to contextualize possible finds that could be unearthed during construction activities.

No heritage reports were done on the farm Franshoek or in Swinburne (SAHRIS database). Unfortunately there also is limited information available on the historical and prehistoric sites in the area. The area is mostly terra incognita as far as heritage sites are concerned, due to a lack of research.

### **8.1 Stone Age**

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is, however, important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago  
Middle Stone Age (MSA) 150 000 – 30 000 years ago  
Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

Information as to the Stone Age in this area is very limited, probably due to a lack of research. The nearest ESA site is one at Florisbad, but this is far towards the south-west (Mitchell 2002: 61). At this site MSA material was also found. The nearest MSA

site to Swinburne however is Rose Cottage Cave, but even this is relatively far towards the south-west. The closest MSA site in the Drakensberg is Sehonghong (Mitchell 2002: 73, 110, 138).

LSA sites close to the study area include a few in Lesotho, namely Ntloana Tsoana and Ha Makotoko. The nearest however is at Nkupe (Mitchell 2002: 138). The latter still is more than 100 km south of Swinburne.

Many Early Stone Age sites are known from the area around the Vaal River. In the Vredefort Dome, to the north-west of the project area, scattered finds of Middle and Late Stone Age tools have been recorded and at Florisbad and Voigtspost Late Stone Age material was uncovered (Mitchell 2002: 73, 110, 138).

Rock art sites are found in abundance in the Drakensberg (see for instance Willcox 1984a), with Maquonqo in Kwa-Zulu-Natal the nearest (Mitchell 2002: 193). These are usually associated with the Late Stone Age. It is known that the San was around this area at least since the early 1700's (Willcox 1984b: 132).

The environment definitely would be supportive to Stone Age activities. The nearby water sources would lure animals to the area and these people would therefore at least have hunted here. One should therefore be on the lookout for stone tools as Stone Age people probably would have moved through the area.

## **8.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however, indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

No Early Iron Age sites have been recorded in the project area. Again this probably only relates to the lack of research as the environment definitely is suitable for human habitation.

The occupation of the larger geographical area (including the study area) did not start much before the 1500s. This resulted from the fact that 16th century the climate became warmer and wetter, creating condition that allowed Late Iron Age (LIA) farmers to occupy areas previously unsuitable, for example the Witwatersrand and

the treeless, windswept plains of the Free State and the Mpumalanga Highveld (Van Schalkwyk 2014: 8).

A large number of Late Iron Age sites have previously been identified in the larger geographical area of the study site. Huffman (2007: 167,179) indicates that Late Iron Age people lived here between AD 1450 and 1650 and again between AD 1700 and 1840. During a survey done by Maggs (1976: 27) many Late Iron Age sites were also identified in the broader geographical area.

These sites are usually located close to high lying hills. The environment is very suitable for Iron Age people, but due to the disturbance of the study area one may perhaps merely find isolated cultural artifacts, such as potsherds.

### **8.3 Historical Age**

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This era is sometimes called the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

In the northern Free State the historic period started with the arrival, in the late 18th century by Korana raiders in the area. Armed Qriqua and Korana raiders on horseback were active in the Northern Cape and Orange Free State by about 1790. The Xhosa were raiding across the Orange River about 1805 (Van Schalkwyk 2014: 8).

Early white travelers also moved through this area. The first to cross the Gariep (Orange) River was John Melvill and GA Kolbe in 1828 (Schoeman 2003: 30). The northern parts of the Free State were visited by WC Harris in 1836 (Bergh 1999: 13; Schoeman 2003: 96). The Voortrekkers of G Maritz and P Retief also moved through here between 1836 and 1838 (Venter 1985: 27, 30).

One may therefore expect to find Historical Late Iron Age settlements linked to the indigenous people here. Other possibilities are farm buildings, graves and objects linked to the first white farmers. Graves were indeed noted close to the Swinburne station, outside of the project area. On the SAHRIS database it is indicated that there is an old toll bridge over the Wilge river at Swinburne which is of heritage significance. It is however outside of the project area.

## 9. DISCUSSION OF SITES FOUND DURING THE SURVEY

No sites of cultural heritage importance were identified.

## 10. PUBLIC CONSULTATION

This will be handled by the Environmental Impact Assessment Practitioner after the scoping phase of the project.

## 11. CONCLUSION AND RECOMMENDATIONS

The survey of the indicated area was completed successfully. As indicated no sites of cultural heritage significance were located in the surveyed area.

The following is recommended:

- Since nothing of heritage importance was identified, this report is seen as ample mitigation.
- A visual impact assessment is probably not needed since most of the infrastructure will be below ground and since nothing of cultural importance was identified
- No buffer zones or areas to be avoided are needed.
- The project may continue, and authorization may be granted, but only after receiving comments from either the Provincial Heritage Resources Authority of the Free State or SAHRA.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Operating controls and monitoring should therefore be aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

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## **APPENDIX A**

### **DEFINITION OF TERMS:**

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

## **APPENDIX B**

### **DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:**

- Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
- Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
- Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
- Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
- Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
- Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

## **APPENDIX C**

### **SIGNIFICANCE AND FIELD RATING:**

#### **Cultural significance:**

- Negligible – The site has no heritage significance, although it may be older than 60 years.
- Low - A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium - A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- Medium - Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also, any important object found out of context.
- Medium-High - A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High - Any site, structure or feature regarded as important because of its age or uniqueness. Also, any important object found within a specific context.
- Very High - A site of exceptional importance due to its age, uniqueness and good state of preservation.

#### **Heritage significance:**

- Grade I     Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II    Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III    Other heritage resources of local importance and therefore worthy of conservation

#### **Field ratings:**

National Grade I significance: The site should be managed as part of the national estate, should be nominated as Grade I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.

Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 37 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 36.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

## **APPENDIX D**

### **PROTECTION OF HERITAGE RESOURCES:**

#### **Formal protection:**

National heritage sites and Provincial heritage sites – grade I and II

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

#### **General protection:**

Objects protected by the laws of foreign states

Structures – older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

## **APPENDIX E**

### **HERITAGE IMPACT ASSESSMENT PHASES**

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.