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**REPORT ON A PHASE 1 HERITAGE IMPACT ASSESSMENT
FOR A PROSPECTING RIGHTS APPLICATION ON VARIOUS
PORTIONS OF THE FARM HARTEBEESTFONTEIN 445JQ,
NEAR BRITS IN THE BOJANALA PLATINUM DISTRICT,
NORTHWEST PROVINCE**

For:

***Red Kite Environmental Solutions (Pty) Ltd
P.O. Box 32677
TOTIUSDAL
0134***

REPORT: APAC018/16

by:

***A.J. Pelser
Accredited member of ASAPA***

March 2018

**P.O.BOX 73703
LYNNWOOD RIDGE
0040
Tel: 083 459 3091
Fax: 086 695 7247
Email: apac.heritage@gmail.com**

Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

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A handwritten signature in black ink, appearing to be 'A. Pelser', is centered on the page.

SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for a Prospecting Rights Application (PRA) on various portions of the farm Hartebeestfontein 445JQ, near Brits in the Northwest Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites in the specific area, but some were identified in the study area during the assessment. The report will discuss the results of the desktop and field assessment and provide recommendations on the way forward at the end of the document.

From a Cultural Heritage point of view the proposed Prospecting Rights Application and related actions can continue, taking into consideration the mitigation measures proposed in the report.

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for a Prospecting Rights Application (PRA) on various portions of the farm Hartebeestfontein 445JQ, near Brits in the Northwest Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites in the specific area, but some were identified in the study area during the assessment.

The client indicated the location and boundaries of the Project Area, and the assessment focused on this area.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. *Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;*
2. *Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;*
3. *Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;*
4. *Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;*
5. *Review applicable legislative requirements;*

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1 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 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. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, 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 (AIA) only looks at archaeological resources. 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 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- 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.

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 palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological 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 of 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.

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 Excavations (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 to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

3.2 The National Environmental Management Act

This act 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.

4. METHODOLOGY

4.1 Survey of literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2 Field survey

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects was determined by means of a Global Positioning System (GPS), while detailed photographs were also taken where possible.

4.3 Oral histories

People from local communities are sometimes 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.

4.4 Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities were determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

The study area is situated on various portions of the farm Hartebeestfontein 445JQ, near Brits in the Bojanala Platinum District of the Northwest Province.

The topography of the area is mostly flat, with no real rocky outcrops, ridges or large hills, although bordered to the south and east by part of the Magaliesberge. The Crocodile River runs through the area, basically cutting it in half, while water canals also run through sections. Large portions of the affected area consist of agricultural fields (various crops) including citrus, maize, soya, onions and others (including plants/flowers). Some informal settlements are also located in the area. Only small patches of original vegetation (bushveld/thornveld) still occur in the area. The large scale agricultural activities in the study area would have impacted to a large degree on any archaeological and/or historical (cultural heritage) resources that could have existed here in the past. Some sites, features and artifacts were however identified during the assessment, and will be discussed in a later section of the report.

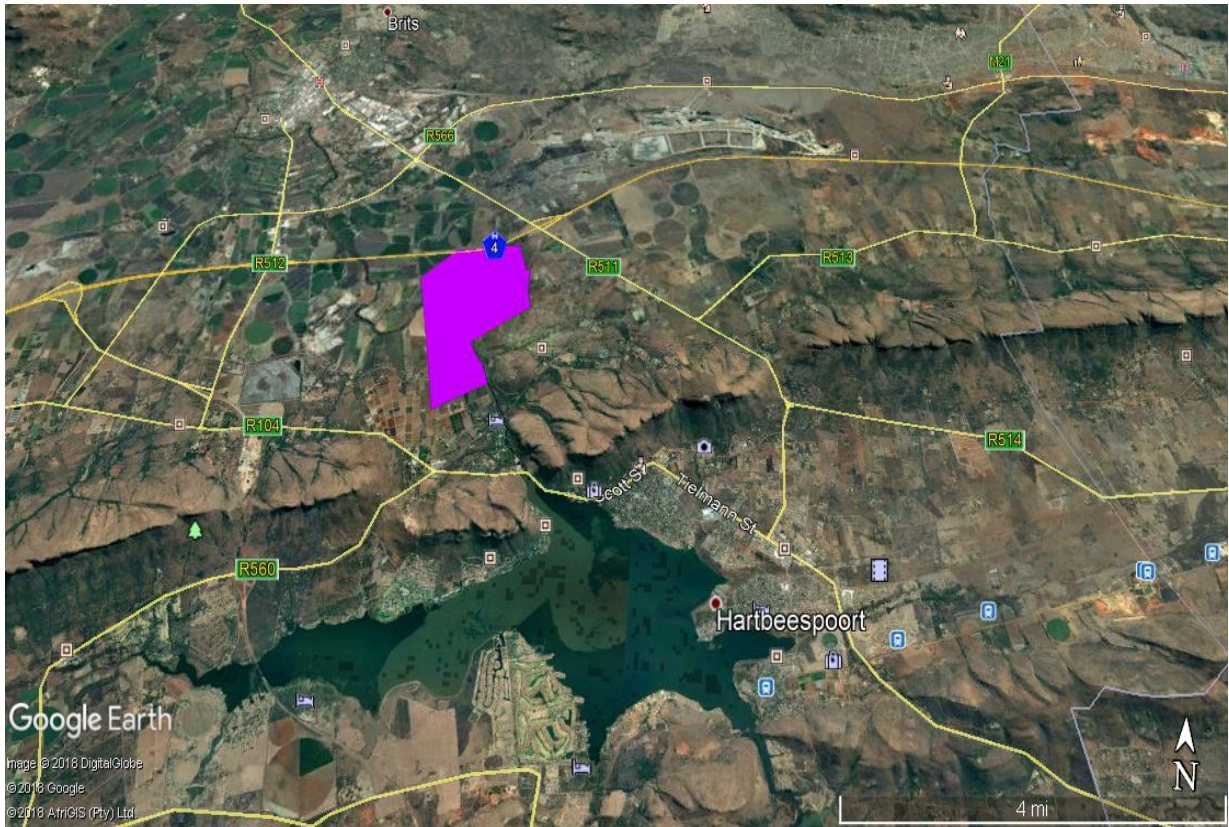


Fig.1 General location of study area in purple (Google Earth 2018).



Fig.2: Closer view of study area (Google Earth 2018). Note the large scale agricultural activities, the Crocodile River and water canals.



Fig.5: Small sections of natural vegetation still exist.



Fig.6: Large sections are under agricultural fields & have been ploughed recently.



Fig.7: Another view of some ploughed fields.



Fig.8: More ploughed fields with the Magaliesberge visible.



Fig.9: Citrus groves.



Fig.10: Another view of agricultural fields in the area.



Fig.11: Another view of a section of the study area with stretches of natural vegetation.



Fig.12: A view of one of the informal settlements.



Fig.13: View of some “greenhouses”.



Fig.14: Another view of the large-scale agricultural activities in the area.

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

The closest known Stone Age sites in the larger area are found in the so-called Magaliesberg Research Area. It consists of a number of sites including rock shelters such as Jubilee Shelter and Kruger Cave south of Brits. These sites date back to the Middle and Later Stone Age and include rock engravings (Bergh 1999: 4 – 5).

Some Stone Age material was identified in the study area during the March 2018 assessment.

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

Early Iron Age (EIA) 200 – 1000 A.D.

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) indicates that a Middle Iron Age should be included. His dates, which are 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.

Late Iron Age sites have been identified in the larger geographical area within which the study area falls. In a band stretching roughly from Brits in the east to Zeerust in the west many Iron Age sites have been discovered previously (Bergh 1999: 7-8). These all belong to the Later Iron Age (Bergh 1999: 8-9). A copper smelting site was identified along the Hex River to the northwest of the surveyed area (Bergh 1999: 8). The closest Earlier Iron Age site is located at Broederstroom near Brits (Bergh 1999: 6).

During earlier times the area was settled by the Fokeng. In the 19th century this group inhabited this area with other Tswana groups including the Kwena and the Po (Bergh 1999: 9-10). During the *difaqane* these people moved further to the west, but they returned later on (Bergh 1999: 11).

According to the research of Tom Huffman the following Iron Age traditions could be present in the area: (a) the Mzonjani facies of the Urewe tradition (Broederstroom) dating to AD450 – AD750 (b) Olifantspoort facies of the same tradition AD1500 – AD1700 (c) Uitkomst facies of Urewe AD1650 – AD1820 and (d) Buispoort facies of Urewe dating to around AD1700 - AD1840 (Huffman 2007: 127; 171; 191 & 203).

Some Iron Age objects were identified in the study area during the assessment.

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. Early travelers have moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 1829 and Dr. Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119).

Hume again moved through this area in 1830 followed by the expedition of Dr. Andrew Smith in 1835 (Bergh 1999: 13, 120-121). In 1836 William Cornwallis Harris visited the area. The well-known explorer Dr. David Livingstone passed through this area between 1841 and 1847 (Bergh 1999: 13, 119-122).

The area also saw some action during the Anglo-Boer War (1899-1902), with a number of skirmishes between the Boer and British forces (Bergh 1999: 51; 54).

Some sites from the recent historical time-period were identified in the area during the assessment.

A 1919 map (for Portion 2 of the farm) obtained from the Chief Surveyor General's database (www.csg.dla.gov.za - Document 10G6RE01) shows that the farm was then numbered as No.5 and was situated in the Pretoria District and Crocodile River Ward. It also shows that the whole of the farm was originally granted to one J.Dorfling on 17-02-1859 by deed. A 1928 map of Portion 36 (Document No.10G6VL01) shows one of the agricultural canals in the area already. This means that these features are older than 60 years of age and as such should be seen as historical features in the landscape and should be preserved as such.

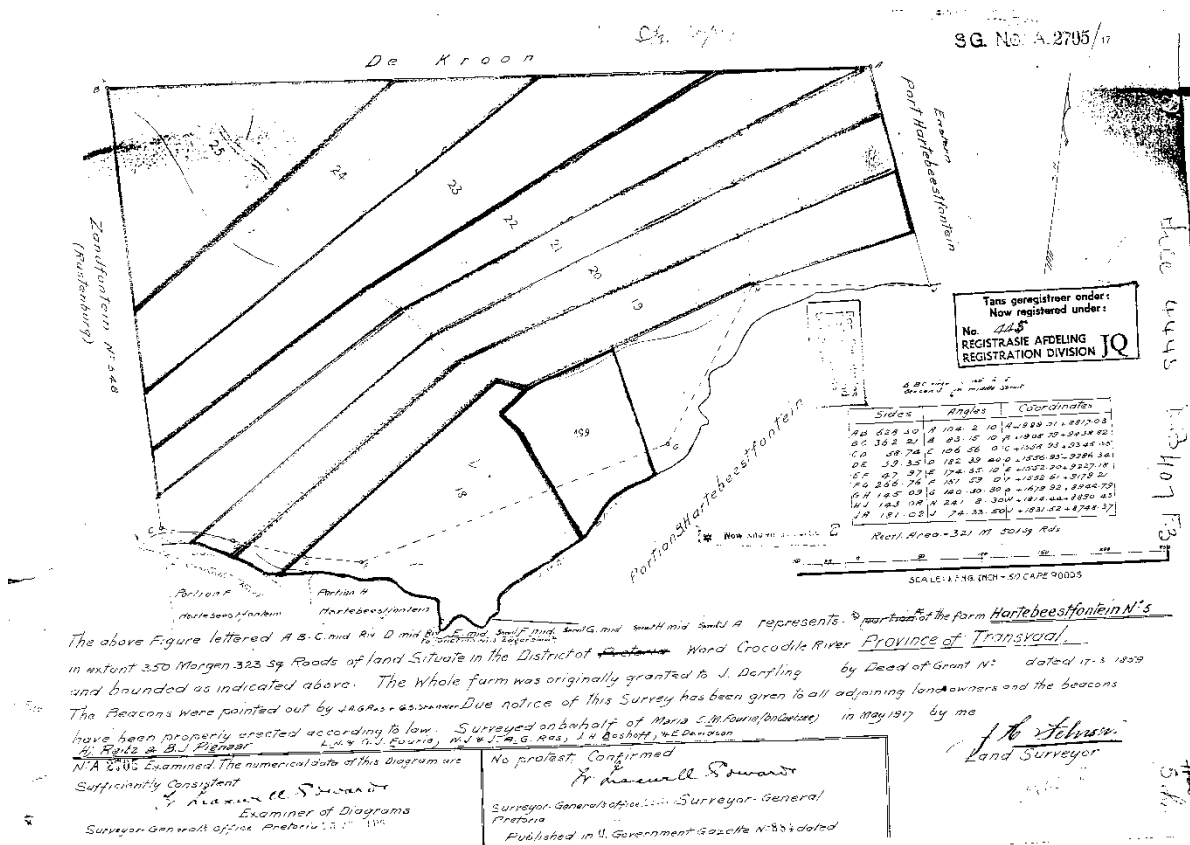


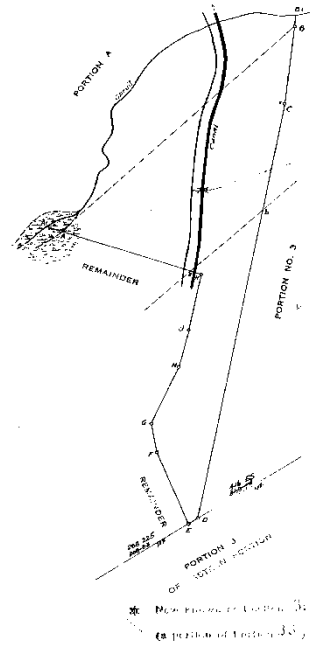
Fig.15: 1919 map of Portion 2 (www.csg.dla.gov.za).

Form 12.—Diagram Form for a Sub-Division of a Farm or portion of a Farm.

A No. 2705/28

Exam* No. 2477 102*		(y) CO-ORDINATES (X)	
SIDES	ANGLES		
A B 207.52	A 62.41.30	A - 2931.17	+ 2254.89
B C 54.52	B 38.45.30	B - 2377.87	+ 2107.72
C D 295.55	C 174.25.01	C - 2372.66	+ 2161.89
D E 6.685	D 134.6.30	D - 2324.088	+ 2459.344
E F 54.82	E 78.34.50	E - 2320.617	+ 2457.686
F G 20.47	F 168.55.40	F - 2298.62	+ 2467.47
G H 43.19	G 144.39.30	G - 2294.14	+ 2387.43
H J 26.81	H 180.35.40	H - 2310.87	+ 2347.64
J K 39.14	J 193.1.10	J - 2316.52	+ 2321.45
K A 95.72	K 262.12.40	K - 2322.74	+ 2282.51

RECT. AREA: 20 MORGEN 133 SQ. RODS
 A A: 10 CO. CAPE RODS
 B B: 7.50 CO. CAPE RODS
 K K A: 180.0.0
 A C D D: 180.0.0



This instrument under:
 No. 1228/28
 of the 4th DIVISION 10

The above Figure lettered A, MID SPRUIT B, C, D, E, F, G, H, J, K, represents
 37 Morgen 533 Square Rods of land, being PORTION NO. 2 OF PORTION P
HARTEBEESTONTEIN NO. 5
 of the Farm
 according to Diagram A. No. 487/28 relating to ~~Diag.~~ of APPROPRIATION No. 1228/28 dated 4-10-1928 made in favour of
 J. M. BRILL & others situate in the District of ~~CAPE PROVINCE~~ BRITS
 Ward ~~CAPE PROVINCE~~ HARTEBEESTPOORT Province of the Transvaal. Bounded as indicated above.
 The Boundaries have been properly erected according to law.
 Surveyed in JANUARY 1928 by me *J. A. F. J. F. J.*
 Land Surveyor.

Approved: *Lotus M. M. M.*
 - 8 NOV 1928
 Surveyor-General.
 Registrar of Deeds.

Fig.16: 1928 map of Portion 36 showing one of the canals in the area (www.csg.dla.gov.za).

Results of the March 2018 Fieldwork

It needs to be noted here that a number of limitations hampered the study/assessment in the field. This included that a number of properties were inaccessible with gates locked and the owners not reachable at the time, while some property owners also denied entry based on the argument that they need more clarity and information on the PRA ad what it entails. These properties could therefore not be covered during the assessment. However, with most of the area covered by agricultural fields and activities it is assumed that if any

sites, features or material of cultural heritage (archaeological and/or historical) origin and significance existed here in the past it would have been extensively disturbed or destroyed as a result. The resources identified however can also be seen as representative of what could potentially be present in the total area and a number of general assumptions can therefore be made. Mitigation measures regarding the negating of any possible impacts on any unknown sites are also provided at the end of this report.

A number of sites were identified during the assessment and will be discussed below.

Site 1 – Stone Age & Iron Age material

This site is located in a recently ploughed field, and a number of MSA/LSA stone tool and flakes, as well as possible broken upper and lower grinding stones dating to the later Iron Age, was found here. The objects are not in situ however, diminishing their and the site's significance. It is also therefore possible that similar occurrences could be present in some of the other agricultural fields in the area and this should be taken into consideration when the drilling/prospecting activities commence. *It is recommended that once the Prospecting/Drilling holes have been determined in more detail that these areas form the focus of a more detailed Heritage Assessment.*

GPS Location: Site 1- S25.70848 E27.83254

Cultural Significance: Low to Medium

Heritage Significance: Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field Ratings: General protection B (IV B): site should be recorded before destruction (medium significance)

Mitigation: Once the Prospecting/Drilling holes have been determined in more detail that these areas form the focus of a more detailed Heritage Assessment.



Fig.17: The location of Site 1.



Fig.18: Some of the Stone Age & Iron Age material found. Upper grinding stone (left) & Stone Age core (right).



Fig.19: Another Stone Age flake-tool from Site 1.

Site 2 – Farmworker settlement remains

This site contains the remains (rubble & foundations) of some brick/plaster/cement and stone-built structures that are likely related to farmworker settlements on the farm here. Cultural material noted here (glass, metal, ceramics) and the bricks date the site as not older than 60 years of age and the site is therefore not of historical significance.

One aspect that should be taken into consideration however, is the possibility of graves and burials being located close to these remains, as it is common practice to bury deceased (still-born) infants and young children close to or even inside these dwellings. If the structures and remains are to be removed as part of the current Prospecting activities or future possible mining then this aspect needs to be considered timeously and with the proper care.

GPS Location: Site 2- S25.70750 E27.83018

Cultural Significance: Low

Heritage Significance: None

Field Ratings: General protection C (IV C): Phase 1 is seen as sufficient recording and it may be demolished (low significance)

Mitigation: Take note of the possibility of unmarked graves/burials associated with the site and remains.



Fig.20: View of stone heaps around the area of Site 2.
These stones come from the ploughed fields situated close by.



Fig.21: Another view of the location of Site 2.



Fig.22: Foundations of a stone structure on Site 2.



Fig.23: Glass fragments at Site 2.



Fig.24: Brick and cement rubble/remains on Site 2.

Sites 3 – 4: Graves

Three sites containing graves were identified and recorded during the assessment. Site 3 contains a single grave with a cement demarcation and granite headstone with inscription. This is the grave of one Daniel Johan Matthys De Beer who was born on the 6th of October 1910 and died on the 10th of March 1931.

Site 4 contains a number of unknown stone-packed graves with no headstones. There is between 6 and 10 graves located here, but the thick vegetation covering the grave site made access and visibility difficult. There could therefore be more graves. These graves likely belong to farmworkers and could be older than 60 years of age.

Site 5 contains possibly 20 or more graves, most packed with stones without headstones and some with brick demarcations. A number of broken pieces of slate headstones were noticed. The site is located next to the Crocodile River bank section here and on a slope below farmworkers houses currently inhabited and used. The age of and identity of the people buried here is not known to them or to the current farm owner (Mr. Jan Bezuidenhout). Some material found here, such as a coin (1961 half cent) could indicate the age of the graves, but rubbish spilling over from the farmworker settlement upslope over the site makes determining this difficult.

From a Cultural Heritage perspective Graves and Graveyards are always of **High Significance**, and all efforts should be made to avoid negative impacts on such sites. With these sites located within the footprint of the study area, the sites should be protected and any negative impacts avoided at all costs by fencing them in and keeping them clean. If this cannot be done there is the option of exhuming and relocating the graves to a new location. This however entails complex and detailed social consultation that needs to be conducted and could be a lengthy and fairly costly exercise.

GPS Locations: Site 3 - S25.69591 E27.83757; Site 4 - S25.69788 E27.83291; Site 5 – S25.69590 E27.83101

Cultural Significance: High – Graves always carry a High Significance rating

Heritage Significance: Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field Ratings: Local Grade IIIB: should be included in the heritage register and may be mitigated (high/ medium significance).

Mitigation: Normally if graves cannot be protected in situ and is to be negatively impacted then they could be exhumed and relocated after detailed consultation with possible descendants have been concluded and permits have been obtained from various local, provincial and National government departments.



Fig.25: Site 3 Grave of Daniel Johan Matthys de Beer.



Fig.26: The location of Site 4.



Fig.27: View of some of the graves on Site 4.



Fig.28: A view of Site 5 location.



Fig.29: A view of one of the graves.



Fig.30: Another view of the row of graves on Site 5.

It should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.



Fig.31: Aerial view of study area showing sites recorded (Google Earth 2018).

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by Red Kite Environmental Solutions (Pty) Ltd to undertake a Phase 1 HIA for a Prospecting Rights Application (PRA) on various portions of the farm Hartebeestfontein 445JQ, near Brits in the Northwest Province.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites in the specific area, but some were identified in the study area during the assessment.

It needs to be noted here that a number of limitations hampered the study/assessment in the field. This included that a number of properties were inaccessible with gates locked and the owners not reachable at the time, while some property owners also denied entry based on the argument that they need more clarity and information on the PRA and what it entails. These properties could therefore not be covered during the assessment. However, with most of the area covered by agricultural fields and activities it is assumed that if any sites, features or material of cultural heritage (archaeological and/or historical) origin and significance existed here in the past it would have been extensively disturbed or destroyed as a result. The resources identified however can also be seen as representative of what could potentially be present in the total area and a number of general assumptions can therefore be made.

5 sites were found during the assessment. This included an open-air site located in a recently ploughed field containing some Stone Age and Iron Age material; one recent historical site containing the remains of a farmworker settlement and 3 grave sites. The first 2 sites do not carry any high cultural heritage (archaeological and/or historical significance) while the 3 grave sites are of High Significance.

From a Cultural Heritage perspective Graves and Graveyards are always of High Significance, and all efforts should be made to avoid negative impacts on such sites. With these sites located within the footprint of the study area, the sites should be protected and any negative impacts avoided at all costs by fencing them in and keeping them clean. If this cannot be done there is the option of exhuming and relocating the graves to a new location. This however entails complex and detailed social consultation that needs to be conducted and could be a lengthy and fairly costly exercise.

It is also recommended that once the final locations of the Prospecting Holes are determined that these areas be assessed for the possible location of cultural heritage sites, features or material that could be impacted by these activities.

Finally, it should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an expert should be contacted to investigate and provide recommendations on the way forward.

From Cultural Heritage point of view the development should therefore be allowed to continue, taking cognizance of the above recommendations.

8. REFERENCES

General & Closer view of study area location and Sites found: Google Earth 2018.

Location Plan/Map: @ Red Kite Environmental Solutions (Pty) Ltd.

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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:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- 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.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

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:

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

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.