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**1<sup>st</sup> phase H.I.A.** The proposed expansion of broiler houses on portions 18 and 20 of the farm Klipspruit 199 IR, Mpumalanga Province, South Africa

**For Ukupha Farming.**

**(PROJECT NUMBER: UKU-KLI-20-01-17).**

**June 2021.**



**Report prepared by: -**

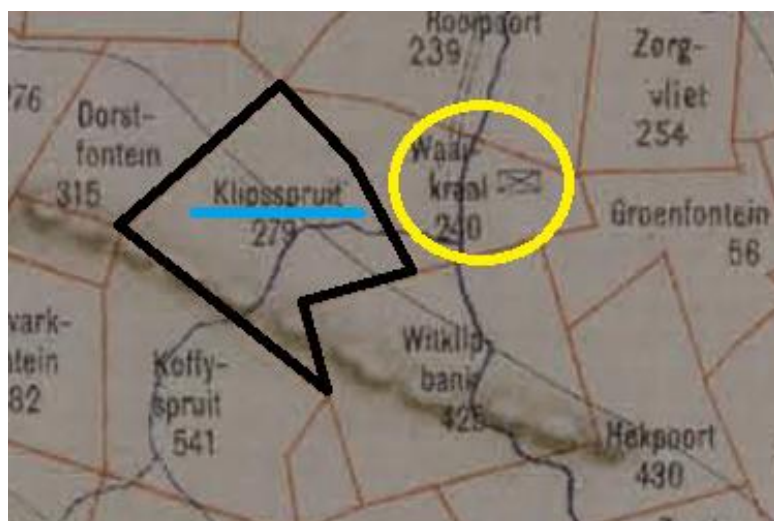
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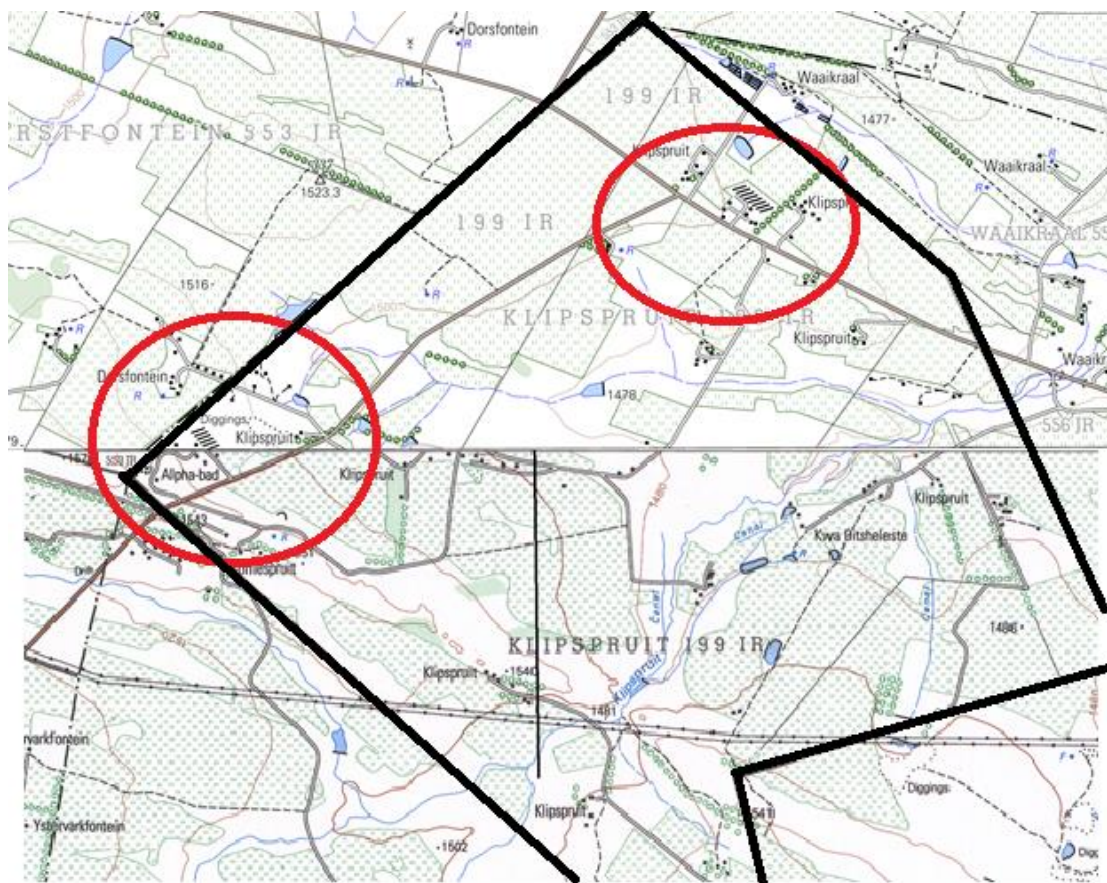
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## 1.1. Location and GPS Coordinates of the study area.

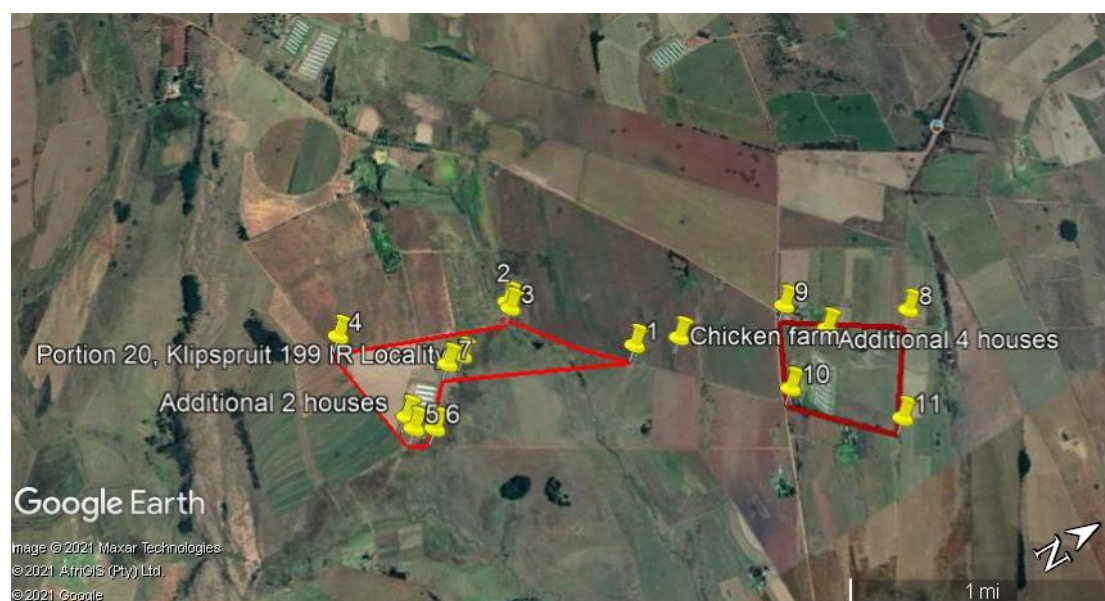


**Fig. 01.** Jeppe's 1899 Map of the Transvaal sheet 5 image shows the location of the farm Klipspruit on which the study areas are located. Adjacent is the farm Waikraal which appears to have been an important postal centre so as to survive into the middle of the twentieth century and was recorded in Acocks's Veld Types of South Africa. (See fig 09 for comparison)



**Fig. 02.** This image shows the location of the farm Klipspruit 199 IR on which the study areas are located. (Circled in red with portion 20 on the west and portion 18 on the north east. (1 5000 maps 2528DC (BRONKHORSTSPRUIT) and 2628BA (DELMAS))





**Fig. 03.** This image shows the location of the different study areas concerned. (Google Earth 2021.)<sup>1</sup>

### 1.2. G.P.S. Coordinates of the limits of the site under assessment.

Area of interest	Degrees south	Degrees east	Area of interest	Degrees south	Degrees east
Beacon 1	25°59'31.03"S	28°37'58.35"E	Beacon 2	25°59'49.51"S	28°37'33.32"E
Beacon 3	25°59'49.68"S	28°37'35.09"E	Beacon 4	26° 0'24.55"S	28°37'20.18"E
Beacon 5	26° 0'19.98"S	28°37'49.32"E	Beacon 6	26° 0'16.26"S	28°37'51.79"E
Beacon 7	26° 0'7.38"S	28°37'39.68"E	Beacon 8	25°58'35.80"S	28°38'24.53"E
Beacon 9	25°58'58.33"S	28°38'8.34"E	Beacon 10	25°59'7.91"S	28°38'26.03"E
Beacon 11	25°58'51.55"S	28°38'45.06"E	Graves	25°58'58.81"S	28°38'13.78"E

**Fig. 04.** Above table shows G.P.S. coordinates that are defining the study areas. (GPS coordinates from Google Earth.)

### 1.3. Description of the Ukupha Group.

The Ukupha Group was formed in 1999 by Mr Lazarus Mbethe, the chairman and Founder of the Group. Despite the many difficulties faced by the indigenous Black African population in South Africa. Mr Mbethe started his entrepreneurial journey in 1969, with a number of successful businesses in Mpumalanga that included its first black-owned dry-cleaners, a shopping centre, metal dealers as well as forming a joint venture with Anglo American Corporation and Reclamation Group for trading in scrap metal'

The Group initially started as an agri-business and agri-processing company which has through its history grown to include a property investment company as well as founding one of the largest manganese mining companies in the world. Other investments include renewable energy, logistics, liquid fuels trading and FMCG companies.

<sup>1</sup> Image supplied by Shangoni by e-mail on the 25<sup>th</sup> May, 2021.

## 2. Contact Details.

### 2.1. Client.

<b>Ukupha Farming<sup>2</sup></b> Contact Person: Telephone E-mail address Physical Address.	Mashudu Mugwabana. + 27 (0)10 133 0820 mashudu@ukuphagroup.com First floor, Leopard Creek Building, The Greens Office Park, Charles de Gaul Cr, Highveld, 0123
Farm Manager: - Contact Person: Telephone	Sipho Nguni +27 72 361 0465.

### 2.2. Consultants.

<b>Environment.</b>  <b>Shangoni Management Services.</b>  <b>Physical address.</b> Unit C8, Block@Nature, 472 Botterklapper Street, The Willows, 0081. <b>Postal address.</b> PO Box 74726, Lynnwood Ridge, Pretoria, 0040. <b>Contact person.</b> Lee-Anne Fellows <b>Telephone.</b> (27)12 807 7036. <b>E-mail.</b> leeanne@shangoni.co.za	<b>Heritage.</b>  <b>Sidney Miller.</b>  <b>Physical address.</b> 328 Malherbe Street, Capital Park, 0084, Tshwane. <b>Postal address.</b> Postnet suite 427, P.B. X15, Menlo Park, 0102, Tshwane. <b>Contact person.</b> Sidney Miller. <b>Telephone.</b> 082 939 6536. <b>E-mail.</b> sidneymears@gmail.com.
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### 2.3. Type of Development.

Farming; - Poultry production.

### 2.4. Zoning of Site.

Farming.

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<sup>2</sup>*Ukupha kukuzibekela. (Literally “To give is to save for oneself.”) This is a Xhosa proverb which means that one who gives freely will be rewarded abundantly. If you are someone who gives freely, people will give to you, and it will be easy for them to help you when you are faced with a problem. If you are someone who gives freely, you will receive help when you are faced with a problem.*

#### Source:

Mini, B.M., Tshabe, S.L., Shoba, F.M. & Van der Westhuizen, P.N. (eds). 2003. *The Greater Dictionary of IsiXhosa. Volume 2. Alice: IsiXhosa National Lexicography Unit, University of Fort Hare. p. 968.*

### **3. Executive Summary.**

#### **3.1. Mandate of Shangoni Management services.**

Shangoni's mandate is to procure a comprehensive impact assessment (including a first phase heritage impact assessment) of their client's proposed impact on the study area described above in *figs. 01 to 04*.

#### **3.2. Intent of Ukupha Farming.**

It is the intent of the client to upgrade and improve the poultry farm by the addition of two extra poultry houses on portion 20 of the farm Klipspruit 199 IR and of four extra poultry houses on portion 18 of the farm Klipspruit 199 IR, Mpumalanga Province.

#### **3.3 The project description.**

The present project is not for new farming. It is for the extension of facilities to farm with poultry within the framework of the National Environmental Management Act (NEMA), Act no 107 of 1998. On portion 18 it is proposed that 4 houses are to be added to the existing 8 houses, and on portion 20 it is proposed that 2 houses are to be added to the existing 6 houses.

#### **3.4. Historical milieu.<sup>3</sup>**

**A.** The general area is known to contain limited Early and Later Stone Age sites as well as a small number of rock art sites. *On the site under investigation no Stone Age (either Early, Middle or Later) artefacts were observed. Neither were there any engravings or other rock art observed.*

**B.** The greater areas to the east, west and north and south are known to contain Later Iron Age sites. *The area investigated revealed no indication of Iron Age settlement.*

**C.** There are a lot of historic remains in the general area of the property under investigation. This includes farmyards, battlefield, cemeteries and graveyards, roads and railway remnants such as bridges and station buildings. *The area investigated revealed no indication of historical remains.*

**D.** Work on the sites under investigation, only commenced recently, so none of the existing buildings and infrastructure is protected by the National Heritage Act.

**E.** There are no sites of cultural/spiritual significance located on or near the property under investigation.

**F.** There are no sites connected to slavery located on or near the property under investigation.

**G.** There are no people of importance connected to the history of the site under investigation.

**H.** There is no special technological or scientific advancement of standing that can be linked to the property under investigation.

#### **3.5. Environmental milieu.<sup>4</sup>**

**Geology.** The geology of the general area is possibly of the best known in South Africa regarding its large fossil fuel resources and its role in providing Electricity for South Africa from coal burning power stations. *The proposed additions will have no impact on the geology of the area.*

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<sup>3</sup> For full description see chapter 8.

<sup>4</sup> For full description see chapter 7.

**Vegetation.** The site under investigation is located in the eastern variety of veld zone 61 as described by Acocks on page 114 of his Veld Types of South Africa, revised third addition. Owing to the large scale of ploughing and planting in the region in the 20<sup>th</sup> century, the present proposed work will have no impact on the original vegetation. ***The proposed additions will have no impact on the vegetation of the area.***

### **3.6. Summary of findings.**

Although the investigation was conducted on foot, by vehicle and by means of interviews with informers, no sign of either Stone Age, Iron Age or historical remains could be located on the sites under investigation.

### **3.7. Recommendation.**

***It is recommended that the proposed addition of 6 poultry houses to portions 18 and 20 of the farm Klipspruit 199 IR may proceed as far as Act 25 of 199, The National Heritage Act, is concerned and documented in this report.***



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#### **4. Definitions.**

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of paleontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

#### **5. Protected Sites in Terms of the National Heritage Act, Act no 25 of 1999.<sup>5</sup>**

The following are the most important sites and objects protected by the National Heritage Act:

- a. Structures or parts of structures older than 60 years
- b. Archaeological sites and objects
- c. Paleontological sites
- d. Meteorites
- e. Ship wrecks
- f. Burial grounds
- g. Graves of victims of conflict
- h. Public monuments and memorials
- i. Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette
- j. Any other places or object which are considered to be of interest or of historical or cultural significance
- k. Geological sites of scientific or cultural importance
- l. Sites of significance relating to the history of slavery in South Africa
- m. Objects to which oral traditions are attached
- n. Sites of cultural significance or other value to a community or pattern of South African history

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<sup>5</sup> *For the present study the highlighted lines are applicable.*



## **6. Methodology.**

**6.1.** The study area was visited on the 31st of May 2021.

**6.2.** The consultant was accompanied to the two sites by the farm manager Sipho Nguni, that has been working here for the last 11 years.

**6.3.** Owing to the small size of the impact areas it was visited on foot.



**Figs. 05 & 06.** Left is the investigation route taken on portion 20 and right is the investigation route taken on portion 18 of the farm Klipspruit 199IR. (*Google Earth. 2021.*)

**6.4.** The sites were recorded by photography.

**6.5.** The above information was recorded and collated in section 9 of this report.

**6.6.** Background information concerning the geology and vegetation of the region was collected from reliable resources and is presented in section 7 of this report.

**6.7.** Background information concerning the archaeology and historical milieu of the region was collected from reliable resources and is presented in section 8 of this report.

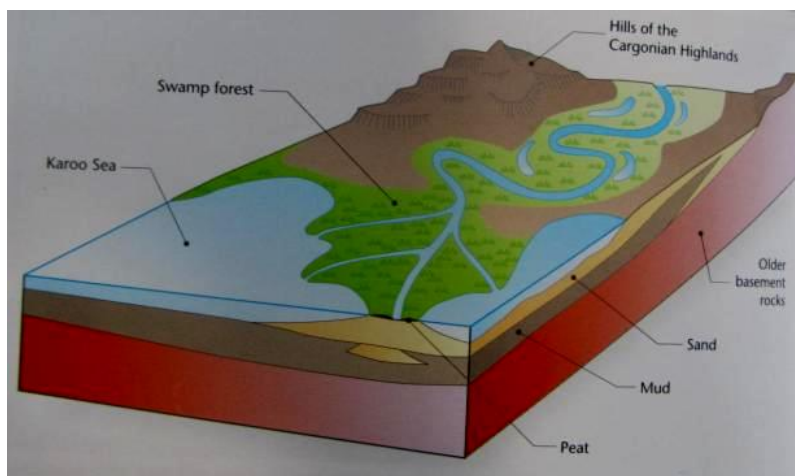
**6.8.** In sections 10 and 11 field ratings (SAHRA minimum standards May 2007) and statements of significance (SAHRA minimum standards May 2007) were attributed as necessitated by situation.

**6.9.** Section 12 contains a summary of the research results with a recommendation in section 13.

**6.11.** The collective gist of the information collated in the report is summarised in the executive summary in section 3.

## 7. Environment.

### 7.1. Geology.<sup>6</sup>

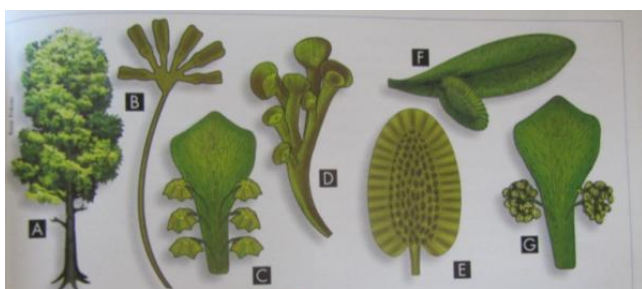


**Fig 07: Schematic explanation of the formation of peat deposits on the shores of the Karoo Sea according to McCarthy and Rubidge, page 200.**

Africa in general and Southern Africa is fortunate to contain evidence of almost all of the geological information regarding the alterations in earth

geology over nearly 3 500 million years including the oldest known oceanic crust, consisting of komatiite in the lower Onverwacht Group in Barberton. The only two older rock groups known today can be found in Canada (Granites circa 4100 million years?) and in Iceland (Sedimentary material circa 3 900 million years). Since these early periods the earth's crust has been in a continuous process of reshaping owing to plate tectonic movement. Geologists' uses terms such as the Kaapvaal Craton, the Pangean continent and Gondwanaland that encompasses thousands of millions of years, but for our present study the geological under-build is fortunately less complex. Apparently within the last 600 million years, as Gondwana drifted from the Antarctic region northwards, and as the ice covering continued to melt, an inland sea was formed between the Cargonian Highlands in the north and the Falkland Plateau in the south and became linked to the open sea apparently similar to the Black sea. Deposits from the higher areas filled up the Karoo Sea over time forming what is formally known as the Eccia Group sedimentary deposits.

During the time of the formation of the Cape Supergroup though, it appears as if land plants were tentatively establishing themselves out of the primeval seas. It therefore followed that by the time of the emergence of the Southern Gondwana from underneath the ice sheets, several large tree-like plants had already evolved, and terrestrial life were firmly on its way to utilize the new environment. A great number of plants were to quickly colonise the extensive swamp-like deltas that were feeding into the Karoo Sea from the north. *Glossopteris* as the dominant tree species, with a large number of other plants were soon so prolific and abundant in these extensive swamps that dead vegetation accumulated faster than it could decay, and thick accumulations of peat were formed, which ultimately converted into coal.



**Fig 08. Reconstruction of *Glossopteris* (A) and its diversity of seed-bearing organs (B to F) and pollen producing organs comprising clusters of sacs attached to scale leaves. (G) (McCarthy and Rubidge, 219)**

<sup>6</sup> See McCarthy & Rubidge 2005 and Haughton 1940 for full description.

### **The formation of coal**

When recycling of vegetation does not occur, which usually happens if it is growing in water, the organic material accumulates to form peat layers. Over time these layers can be buried under sediments. In the case of the Karoo Basin, rivers draining into the basin along its northern margin formed a series of channels and deltas with well-vegetated margins, which formed extensive swamps.

These swamps were periodically drowned by subsidence, and the peat layers were buried beneath sediment, only to reform as the water again became shallower. In this way multiple peat layers were deposited. Peat contains about 50% carbon, the rest being made-up mainly of oxygen and hydrogen. Once peat is buried beneath sediment, it is compressed and slowly heated. Oxygen and hydrogen are expelled as water, and carbon content increases.

Ultimately the process leads to the conversion of peat into coal. Low heat and pressure results in brown coal or lignite. With higher temperatures and pressures bituminous coal and anthracite may also be formed which contains much higher percentages of carbon. During formation, peat contains a certain percentage of fine sediment generally referred to as 'mud'.

This is retained in the carbonisation process and when coal is burnt is a leftover in the form of ash. Coal in a mine often appears to have a multi-coloured banded and or layered structure. This is often the result of a variety of plant types that contributed to the peat layers owing to climatic changes.

### **7.2. Vegetation.**



*Fig 09. A portion of Acocks's map of the Veldt Types of South Africa produced by the Botanical Research Institute and the Department of Agricultural Technical Service of the Republic of South Africa.<sup>7</sup> The green area (type 61) is typical of the study area before major ploughing commenced post WWII in the later 1940's. Here one can also see Waaikraal as a place*

*of importance as recorded by Acocks.*

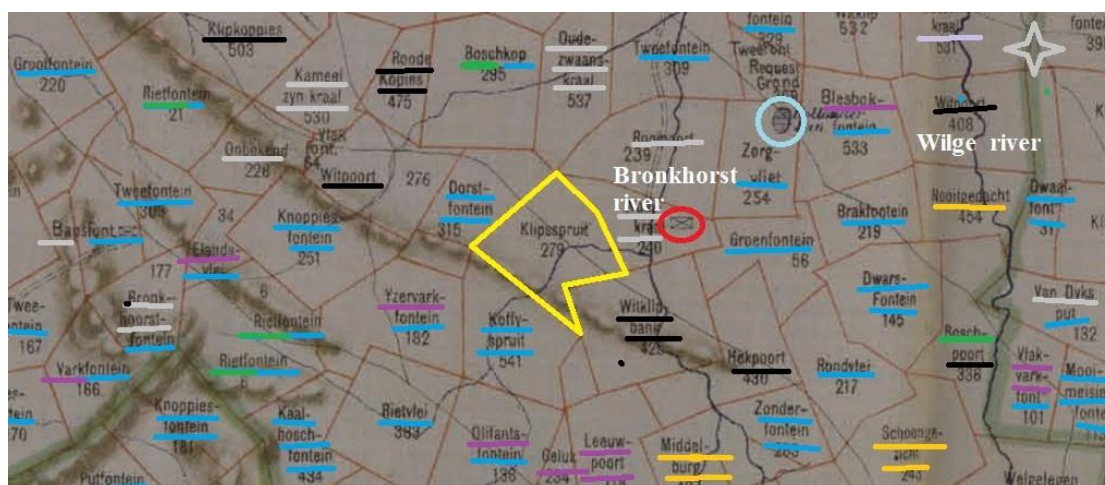
Type 61 (green) is described by Acocks on page 112 as the BANKENVELD which he also classifies loosely as a FALSE GRASSLAND type. This Bankenveld appears to have been an open savannah type of *Acacia caffra* character, and still is along its northern boundary. Sour bushveld regularly occurs on rocky outcrops and hills. It is a sparse and tall tufted type with the forbs playing an important part and is extremely sour. In this case there are three variations, 61a the Western variation on sandy plains, 61b the Central variation of the Witwatersrand region, high-lying, largely stony country, with rolling topography, and finally 61c the Eastern Variation, on sandy plains, but wetter than the Western Variation.

The present study area falls in the Eastern variation 61c. This is very flat sandy country. On the rocky outcrops the veld resembles the Central Variation as it does along the northern margin, being transitional to Sour Bushveld. Rainfall varies from 600 to 750 mm in the summer and

<sup>7</sup> The present author is well aware of the 2006 publication of Mucina, L. & Rutherford, M.C. (eds). "The vegetation map of South Africa, Lesotho and Swaziland." Strelitzia 19, South African National Biodiversity Institute. But Acocks's work was done a half a century ago since when much has changed in environmental matters.



altitudes vary from 1350 to 1700 m above sea level. The dominant six grass species are *Tristachya leucothrix*, *Eragrostis racemosa*, *Heteropogon contortus*, *Trachypogon spicatus*, *Digitaria tricholaenoides* and *Themeda triandra*.<sup>8</sup>



**Fig 10.** The farm names illustrate the environmental and historical character of the area surrounding the study area. It is a rather wet environment and the Fauna and Flora represented illustrate the typical Highveld character in these parts. Vegetation is represented mainly by reeds and sparse vegetation on hilly out-crops while Blesbuck, Springbuck, Eland, Bush pigs, porcupines, Lion, and, Elephant is representative of a typical savannah veld. Bossemanskraal (star) Kameel zyn kraal and Oude zwarts kraal is reminiscent of earlier inhabitants of the region while Bapsfontein, Bronkhorstfontein and van Dyks Put retains names and surnames of early pioneer settlers. The red circle represents a postal service point at the end of an “official wagon road” on the farm “Waaikraal”. On the farm “Zorgvliet”<sup>9</sup> (Blue circle) there occurs a natural pan known as “Hollanders pan” which in a way explains the name “Zorgvliet”<sup>10</sup> (The 1899 Jeppe’s Map of the Transvaal.)

## 8. Archaeological and Historical Background.

### 8.1. Prehistoric occupation –the Stone Age.

In General the Stone Age<sup>11</sup> is not well represented in this region. This can be attributed to the environmental factors that exist here. In the first place winter months are rather harsh with temperatures often dropping below zero. Also, the general aspect of open grassland would have inhibited both hunting and gathering for early peoples before *Homo Sapiens* proper.

<sup>8</sup> For a more complete list see Acocks page 114.

<sup>9</sup> In 1651 an estate at Sorghvliet, near The Hague in South Holland, was established by the statesman & author, Jacob Cats (1577-1660). The original building was known as Catshuis. The formal gardens were a part of the 1651 estate. After Cats' death in 1660. The building & grounds were redesigned & expanded by Hans Willem Bentinck (1649-1709), the Earl of Portland, who was the superintendent of King William's estate near Apeldoorn, Het Loo, & the royal gardens in England. The garden was designed in the highly decorative baroque taste, lined by orderly rows of topiaries & trees, & with symmetrical & geometric trimmed hedges. A set of 32 illustrations by Johannes van den Aveele (1650-1712) were produced by Amsterdam printer Nicolaus Visscher.

<sup>10</sup> In the Dutch language “vliet” means canal or waterway

<sup>11</sup> Early Stone Age spans the period of 3million years ago to 500 thousand years ago. The Middle Stone Age follows up to a 100 thousand years ago and the later stone Age again till the arrival of Iron Age and European peoples during te last 2000 years.

This is then reflected in the remains and artefacts of this group being found towards the west at the Cradle of Humankind and towards the east along the rivers such as the Elephants. During the Later Stone Age the areas surrounding the numerous pans and bodies of water in the region were utilized by “San” type people, possibly generally in summer time. This is represented by flake tools that can be found surrounding these pans, as well as limited rock art renderings.

*On the properties evaluated no Stone Age remains were observed*

## **8.2. Prehistoric occupation –the Iron Age.**

The Iron Age in southern Africa is represented by the arrival of Agropastoralists peoples from central Africa. These people were different to the Stone Age people in the sense that they were true farmers with the capacity to work a range of metals, build dwellings and manufacture ceramics.

Between the fourth century and the ninth century these people were isolated in the Bushveld regions of Southern Africa from international contact and trade. In general, these peoples never chose to live on the Transvaal Highveld, negating them from expected inhabitants of the area under investigation.

Between the ninth century and the sixth century traders from the east came by sea faring vessels to coastal ports such as Zanzibar, Sofala (Beira), Mozambique Island and Lorenzo Marques (Maputo). Their search for African products such as gold, copper, tin ivory, rhino horn, skins and last but not least “Black Ivory” (slaves) in trade for cloth, glass beads and a variety of trinkets had a huge impact on the organization of the indigenous tribes. Eventually this led to the formation of “States” such as Mapungubwe and Great Zimbabwe. As in the case of the earlier group the people of this period also preferred the Bushveld areas and never settled on the Highveld, also neglecting them as expected inhabitants of the area under investigation.

Then, after 1499, the circumnavigation of Southern Africa by Dias and Da Gama, Europeans carrying the flag of Christianity, the previous trade with the East was brought to an end. This led to the breakdown of the former “states” and a general period of turmoil, as well as an increase in populations. This pressure forced groups to inevitable migration to climates and environments previously neglected. By the late eighteenth century there were Iron Age people living in the Suikerbosrand, Pretoria, Heidelberg, Machadodorp etc., today referred to as the Goyia and Koni peoples. But still they evaded the area under investigation owing to the harsh winter conditions, also neglecting them as expected inhabitants of the area under

*On the properties evaluated no Iron Age remains were observed*

## **8.3. Historic occupation. (See Bergh, J.S. (ed.) 1998 and Erasmus, B.P.J. 1995)**

The British occupation of the Cape, their problems with the free ranging Boers, the continuous wars with the Xhosa and the emancipation of slaves in 1836 set in motion a far-reaching migration of with pioneers from the Cape east and northwards that would forever change the political and demographical face of Southern Africa. Between 1836 and 1844 a large portion of the colony decided to look for their ‘land of providence’ away from the ‘yoke’ of the British Crown. This handful of people ‘defeated’ Dingaan and Mzilikazi and claimed for themselves the lands of Kwa Zulu-Natal, the Free State and the Transvaal. By 1855 white pioneer towns and communities were established north of the Vaal River at De Clercq’s Dorp, Potchefstroom, Rustenburg, Wakkerstroom, Ohrigstad, Lydenburg, Zoutpansbergdorp, Heidelberg, Vredenburg, Rustenburg, Pretoria and Zeerust.

But soon the ‘delivered’ black population of the Transvaal realised that the hand of the new master were no different to that of Mzilikazi and became taciturn and aggressively fought back for their freedom and their land. Sekwati and Sekhukhune, Mokopaan, Makhado, Maloboch,



Modjadji, Mogoba, and their respective nations made life untenable for the small white community and much blood was shed.

On the other hand, Africa took its own toll on the white pioneers in the form of Malaria, the Tsetse Fly, the Runderpest, floods and droughts, swarms of locusts and many more. Amongst themselves bitter political and religious discontent prevailed amongst the white pioneers, and they still were held in the grip of economic supply of life-necessities by British traders. Soon also the boon of African wildlife resources dwindled as all big game was hunted nearly to extinction by 1870. The end of the 'good' life in the Transvaal was nearly over.

Unfortunately for all inhabitants of this area 'free of the Yoke of the British Crown' a new era came into play. Diamonds were discovered in the Northern Cape, gold in the Witwatersrand, and many other minerals such as iron, lead silver, tin and copper all over the Transvaal. These temptations were too big for the greed of the likes of Rhodes and Oppenheimer and by 1881 the British were back to wrest the wealth from the inhabitants of the Transvaal. As the initial annexation of the Transvaal occurred before the real Witwatersrand gold fields were discovered it was at most a messy affair with Amajuba and Potchefstroom posting two serious blood noses for the Crown that were represented by only an expeditionary force.

After the realisation of the extent of the Transvaal Gold fields though, the British were back in force in 1899 and in three years the two northern states of the Orange Free State and the Transvaal were pulverised into submission and the extraction of gold became the paramount business in the north. As this could not be accomplished without energy, 'modern technology' and transport, the coal deposits of the Transvaal Highveld became the next target of exploitation by the British to fuel the extraction of the glistening metal. This again needed men to work the mines, they had to be sheltered and fed and so the snowball ran its course.

*On the properties evaluated no historical heritage remains were observed*

## 9. Documentation of Data on the Premises under Investigation.



**Fig. 11.** This images shows the location of the proposed additional 2 buildings on portion 20 of the farm Klipspruit 199 IR. The areas are so disturbed owing to 20<sup>th</sup> century farming and ploughing that there is no chance for the survival of in-situ cultural material. The fact of the matter is that here one can clearly see that some landscaping had already been undertaken in the past by a person or persons unknown. (Google Earth 2021.)<sup>12</sup>



**Fig. 12.** Looking from the southwest over portion 20 to the northeast showing the disturbed condition of the site. (Photo S.M. Miller 2021.)



**Figs. 13 to 15.** Looking from the southeast over portion 20 to the northwest showing the typical extent of a single broiler house. And the clean condition of the site. (Photos S.M. Miller 2021.)

<sup>12</sup> Image supplied by Shangoni by e-mail on the 25<sup>th</sup> May, 2021.



**Figs. 16 & 17.** Typical views looking northeast from the southwest doorway of an existing broiler house. According to the site foreman Mr Sipho Nguni around a 140 000 chickens are read in 33 days to butchery standard with sanitising period of 11 days between groups in the 14 existing broiler houses at present. (Photos S.M. Miller 2021.)



**Fig. 18.** Typical view along the Southwestern elevation of the broiler houses on portion 20 of the farm Klipspruit 199 IR. (Photo S.M. Miller 2021.)



**Fig. 19.** This images shows the location of the proposed additional 4 buildings on portion 18 of the farm Klipspruit 199 IR. The areas are so disturbed that there is no chance for the survival of in-situ cultural material. (Google Earth 2021.)<sup>13</sup>

<sup>13</sup> Image supplied by Shangoni by e-mail on the 25<sup>th</sup> May, 2021.





**Fig. 20.** This images shows the location of the contested cemetery that is located some 100 meters south of the proposed new building site on portion 18. At present this does not impact on the current investigation. (Google Earth 2021.)<sup>14</sup>

**Graves at 25°58'58.81"S  
28°38'13.78"E**



**Fig. 21.** Looking from the southwest over portion 18 to the north showing the disturbed condition of the site. (Photo S.M. Miller 2021.)



**Figs. 22 and 23.** Looking from the southeast over portion 18 to the northeast showing the typical extent of a single broiler house. And the clean condition of the site. These structure were constructed as early as 1989 while ones on portion 20 were only built in 2014 according to Mr Siphon Nguni. (Photos S.M. Miller 2021.)

<sup>14</sup> Image added by SM Miller 31<sup>st</sup> May 2021





**Fig. 24.** Some 100 meters south of the proposed building site on portion 18 there exist a cemetery of farm labourers. Some graves have recent

headstones while many are unmarked. At present there is a dispute between the farm owner and farm labourers regarding the rights to continue their burial practices here. At present the cemetery appears to be untended and in a bad state of repair. (Photo S.M. Miller 2021.)



**Figs. 25 to 27.** New graves in the forefront with older marked and unmarked graves in the background. (Photos S.M. Miller 2021.)



**10. Field Rating. (SAHRA minimum standards May 2007.)**

<b>Area of interest</b>	<b>Rating according to minimum standards May 07</b>	<b>Area of interest</b>	<b>Rating according to minimum standards May 07</b>
Study area on Portion 18 of Klipspruit 119 IR	N/A	Study area on Portion 20 of Klipspruit 119 IR	N/A
Graves on Portion 18 of Klipspruit 119 IR	N/A		

**11. Statements of Significance. (SAHRA minimum standards May 2007.)**

<b>Area of interest</b>	<b>Rating according to minimum standards May 07</b>	<b>Area of interest</b>	<b>Rating according to minimum standards May 07</b>
Study area on Portion 18 of Klipspruit 119 IR	N/A	Study area on Portion 20 of Klipspruit 119 IR	N/A
Graves on Portion 18 of Klipspruit 119 IR	N/A		

## **12. Summary.**

### **12.1. Mandate of Shangoni Management services.**

Shangoni's mandate is to procure a comprehensive impact assessment (including a first phase heritage impact assessment) of their client's proposed impact on the study area described above in *figs. 01 to 04*.

### **12.2. Intent of Ukupha Farming.**

It is the intent of the client to upgrade and improve the poultry farm by the addition of two extra poultry houses on portion 20 of the farm Klipspruit 199 IR and of four extra poultry houses on portion 18 of the farm Klipspruit 199 IR, Mpumalanga Province.

### **12.3. The project description.**

The present project is not for new farming. It is for the upgrading and extension of facilities to farm with poultry within the framework of the National Environmental Management Act (NEMA), Act no 107 of 1998. On portion 18 it is proposed that 4 houses are to be added to the existing 8 houses, and on portion 20 it is proposed that 2 houses are to be added to the existing 6 houses.

### **12.4. Historical milieu.<sup>15</sup>**

**A.** The general area is known to contain limited Early and Later Stone Age sites as well as a small number of rock art sites. *On the site under investigation no Stone Age (either Early, Middle or Later) artefacts were observed. Neither were there any engravings or other rock art observed.*

**B.** The general area to the east, west and north is known to contain Later Iron Age sites. *The area investigated revealed no indication of Iron Age settlement.*

**C.** There are a lot of historic remains in the general area of the property under investigation. This includes farmyards, battlefield, cemeteries and graveyards, roads and railway remnants such as bridges and station buildings. *The area investigated revealed no indication of historical remains*

**D.** Work on the farm, only commenced recently, so none of the existing buildings and infrastructure is protected by the National Heritage Act.

**E.** There are no sites of cultural/spiritual significance located on or near the property under investigation.

**F.** There are no sites connected to slavery located on or near the property under investigation.

**G.** There are no people of importance connected to the history of the site under investigation.

**H.** There is no special technological or scientific advancement of standing that can be linked to the property under investigation.

### **12.5. Environmental milieu.<sup>16</sup>**

**Geology.** The geology of the general area is possibly of the best known in South Africa regarding its large coal resources and its role in providing Electricity for South Africa from coal burning power stations.

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<sup>15</sup> For full description see chapter 8.

<sup>16</sup> For full description see chapter 7.

***The proposed additions will have no impact on the geology of the area.***

**Vegetation.** The site under investigation is located in the eastern variety of veld zone 61 as described by Acocks on page 114. Owing to the large scale of ploughing and planting in the region in the 20<sup>th</sup> century, the present proposed work will have no impact on the original vegetation.

***The proposed additions will have no impact on the vegetation of the area.***

### **13.1. Summary of findings.**

Although the investigation was conducted on foot, by vehicle and by means of interviews with informers, no sign of either Stone Age, Iron Age or historical remains could be located on the sites under investigation.

### **13.2. Recommendation.**

***It is recommended that the proposed addition of 6 poultry houses to portions 18 and 20 of the farm Klipspruit 199 IR may proceed as far as Act 25 of 199, The National Heritage Act, is concerned and documented in this report.***



**Sidney Miller**

**B.Sc. (Engineering) Civil, M. (Architecture) Conservation. Asapa no 087**

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## Guidelines

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## **Appendix 1: Declaration of Independence.**

**I, Sidney Mears Miller (ID 5412135029082) declare that:**

**I act as an independent environmental practitioner in this application;**

**I will perform the work relating to the application in an objective manner, even if this result in views and findings that is not favourable to the applicant;**

**I declare that there are no circumstances that may compromise my objectivity in performing such work;**

**I have expertise in conducting environmental impact assessments, including knowledge of the National Heritage Resources Act (No 25 of 1999) and any guidelines that have relevance to the proposed activity;**

**I will comply with the Act, regulations and all other applicable legislation;**

**I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;**

**I have no, and will not engage in, conflicting interests in the undertaking of the activity;**

**I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;**

**I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;**

**I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;**

**I will keep a register of all interested and affected parties that participated in a public participation process;**

**I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; all the particulars furnished by me in this form are true and correct;**

**will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations;**

**I realize that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.**

### **Disclosure of Vested Interest**

**I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity AND OR proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations.**



**SIDNEY MEARS MILLER.**

## **Appendix 2: Provisional indemnity.**

### **Declaration by author.**

I Sidney Miller hereby declare that all reasonable steps were taken to identify the heritage resources on the property under investigation. For obvious reasons heritage remains that occurs underground cannot be vouched for. In the event of such remains being uncovered during the mining operations work should be stopped and a heritage practitioner or the heritage authorities must be informed. The cost of such new investigation will be for the account of the client.



**SIDNEY MEARS MILLER.**

**Appendix 3: Shangani impact and mitigation monitoring analysis.**

No.	Aspect affected	Activity	Potential Impact	Phase	Mitigation type	Impact management actions / Mitigation measures	Impact management outcome	Standard to be Achieved	Time period for implementation
	<b>Proposed addition of Poultry broiler houses portions 18 and 19 of Klipspruit 199 IR</b>	Construction of new broiler houses.	No impact	Not applicable	No mitigation	No impact management	Not applicable	No standard to be achieved.	Not applicable