

SPECIALIST REPORT
**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR
PROPOSED DEVELOPMENT OF AGRICULTURAL FIELDS ON THE FARMS ALMA
644JU (Ptn 10) & DAISY KOPJE 645JT (Ptn 11), BARBERTON
MPUMALANGA PROVINCE**

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EXECUTIVE SUMMARY

A Phase 1 Heritage Impact Assessment (HIA) regarding archaeological and other cultural heritage resources was conducted on the footprint for the proposed agricultural development on the farms *ALMA 644JU (portion 10)* & *DAISY KOPJE 645JT (portion 11)*, Barberton.

The study area is situated on topographical map 1:50 000, 2530 DB, which is in the Mpumalanga Province. This area falls under the jurisdictions of the Ehlanzeni District Municipality, and Umjindini Local Municipality.

The National Heritage Resources Act, no 25 (1999)(NHRA), protects all heritage resources, which are classified as national estate. The NHRA stipulates that any person who intends to undertake a development, is subjected to the provisions of the Act.

The applicant, ANZEL Trading PTY (Ltd) in co-operation with UMSINSI Environmental Specialists cc, is proposing the development of agricultural fields on 39ha of historically disturbed land. This proposed area for development was last used as agricultural lands before the year 2002. The footprint of the agricultural fields will stay the same as before, and no virgin land will be developed.

The previous owner was contacted and confirmed that the study area was used for agricultural activities before 2002. No graves are present on the two farms and stone walls which are present towards the north, fall outside of the study area. The survey revealed no archaeological or historical features or structures in the study area.

It is recommended that the owners be made aware that distinct archaeological material or human remains may only be revealed during the development of agricultural operations. In such instance, a qualified archaeologist must be contacted to monitor the activities and make a recommendation. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed development to continue.

Disclaimer: *Although all possible care is taken to identify all sites of cultural significance during the investigation, it is possible that hidden or sub-surface sites could be overlooked during the study. Christine Rowe trading as Adansonia Heritage Consultants will not be held liable for such oversights or for costs incurred by the client as a result.*

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- 1) The results of the project;*
- 2) The technology described in any report;*
- 3) Recommendations delivered to the Client.*

JULY 2018



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Christine (Van Wyk) Rowe

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**PHASE 1 ARCHAEOLOGICAL / HERITAGE IMPACT ASSESSMENT FOR PROPOSED
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DAISY KOPJE 645JT (Ptn 11), BARBERTON
MPUMALANGA PROVINCE**

A. BACKGROUND INFORMATION TO THE PROJECT

The applicant, Anzel Trading PTY (Ltd) in co-operation with UMSINSI Environmental Specialists, is requesting an agricultural development for 39ha on the farms ALMA 644JU (portion 10) & DAISY KOPJE 645JT (portion 11), Barberton.¹ The investigation revealed that the areas which are applied for in this development, are historically fallow agricultural fields which was cultivated before the year 2002. The previous owner, Mr. Dave Mouraunt, who owned the farm from 2002 – 2018, tried to rehabilitate previous agricultural fields to its natural state, and therefore most of the lands are currently covered with prominent Paperbark thorn (*Acacia sieberiana*) species.² Sickie bush (*Dichrostachys cinerea*), which is an indication of previously disturbed sections,³ is also present on the study area (see Appendix 2). The area was cultivated before 2002, with green beans⁴ and tobacco⁵ before 2002. Mr. Mouraunt did not encounter any graves but did mention stone walls on the farm.⁶

The two farms ALMA 644JU (portion 10) & DAISY KOPJE 645JT (portion 11), is adjacent to each other (see Map 5), and the proposed development application is for both farms. The Suidkaap River forms the northern border of the farm DAISY KOPJE 645JT (portion 11), and the R38 (to Carolina), forms the southern border of the farm ALMA 644JU (portion 10). A SASOL gas pipeline runs from east to west near the northern border of the farm ALMA 644JU (portion 10) (see Map 5). The study area is approximately 6km north east of Barberton. The proposed development area is surrounded by farms with existing agricultural activities.⁷ (See Map 4: The wider area).

Adansonie Heritage Consultants were appointed by UMSINSI ENVIRONMENTAL SPECIALISTS cc to conduct a Phase 1 heritage impact assessment (HIA) on archaeological

¹ UMSINSI, BID document, July, 2018.

² Personal communication: Mr. Dave Mouraunt, 2018-07-09.

³ Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 9.

⁴ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁵ Personal communication: Mr. Gerhard Wessels, 2018-07-02.

⁶ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁷ UMSINSI, BID document, July, 2018.

and other heritage resources on the two farms. A literature study, relevant to the study area as well as a foot survey was done, to determine that no archaeological or heritage resources will be impacted upon by the proposed development (See Map 3: Topographical Map: 2531BD (1984).

The aims of this report are to source all relevant information on archaeological and heritage resources in the study area, and to advise the client on sensitive heritage areas as well as where it is viable for the development to take place in terms of the specifications as set out in the National Heritage Resources Act no., 25 of 1999 (NHRA). Recommendations for maximum conservation measures for any heritage resources will also be made. The study area is indicated in Maps 2 - 5, and Appendix 1 & 2.

- This study forms part of an EIA, Consultant: *UMSINSI ENVIRONMENTAL SPECIALISTS cc*, P.O. Box 8163, Nelspruit, 1206, Cell: 0823386934 / Fax: 0866304313 / e-mail: umsinsi.es@gmail.com . The EIA is in the Planning & Scoping phase.
- Type of development: Development of 39ha of agricultural fields on already disturbed lands (historically used for agriculture), on the *farms ALMA 644JU (portion 10) & DAISY KOPJE 645JT (portion 11)*, Barberton, Mpumalanga Province.
- The study area is entirely historically disturbed agricultural land. It is zoned as agricultural (except for the SASOL Gas line) and will not be rezoned.
- Location of Province, Magisterial district / Local Authority and Property (farms): The area falls within the Mpumalanga Province under the jurisdictions of the Ehlanzeni District Municipality, and Umjindini Local Municipality.
- Land owners: Mr. Nico Wessels & Gerhard Wessels, ANZEL Trading PTY (Ltd).

Terms of reference: As specified by section 38 (3) of the NHRA, the following information is provided in this report.

- a) The identification and mapping of heritage resources where applicable;
- b) Assessment of the significance of the heritage resources;
- c) Alternatives given to affected heritage resources by the development;
- d) Plans for measures of mitigation.

Legal requirements:

The legal context of the report is grounded in the National Heritage Resources Act no. 25, 1999, as well as the National Environmental Management Act (1998) (NEMA):

- In terms of **Government Notice R546**, a basic Environmental Impact Assessment is required in terms of the following listed activities:

Activity 13: The clearance of an area of 300sqm or more of vegetation, where 75% or more of the vegetation cover constitutes indigenous vegetation;

Activity 14: The clearance of an area of 1ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

- **Section 38 of the NHRA**

This report constitutes a heritage impact assessment investigation linked to the environmental impact assessment required for the development. The proposed development is a listed activity in terms of Section 38 (1) of the NHRA. Section 38 (2) of the NHRA requires the submission of a HIA report for authorisation purposes to the responsible heritage resources agency, (SAHRA). Heritage conservation and management in South Africa is governed by the NHRA and falls under the overall jurisdiction of the South African Heritage Resources Agency (SAHRA) and its provincial offices and counterparts.

Section 38 of the NHRA requires a Heritage Impact Assessment (HIA) to be conducted by an independent heritage management consultant, for the following development categories:

- Any development or other activity which will change the character of a site:
 - exceeding 5000m² in extent;
 - the rezoning of a site exceeding 10 000m² in extent;

In addition, the new EIA regulation promulgated in terms of NEMA (as amended), determines that any environmental report will include cultural (heritage) issues.

The end purpose of this report is to alert *UMSINSI ENVIRONMENTAL SPECIALISTS*, as well as the client and interested and affected parties about existing heritage resources that may be affected by the proposed development, and to recommend mitigation measures aimed at reducing the risks of any adverse impacts on these heritage resources. Such measures could include the recording of any heritage buildings or structures older than 60 years prior to demolition, in terms of section 34 of the NHRA and also other sections of this act dealing with archaeological sites, buildings and graves.

The NHRA section 2 (xvi) states that a “heritage resource” means any place or object of cultural significance, and in section 2 (vi) that “cultural significance” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.

Apart from a heritage report assisting a client to make informed development decisions, it also serves to provide the relevant heritage resources authority with the necessary data to perform their statutory duties under the NHRA. After evaluating the heritage scoping report, the heritage resources authority will decide on the status of the resource, whether the development may proceed as proposed or whether mitigation is acceptable, and whether the heritage resource require formal protection such as a Grade I, II or III, with relevant parties having to comply with all aspects pertaining to such a grading.

- **Section 35 of the NHRA**

Section 35 (4) of the NHRA stipulates that no person may, without a permit issued by SAHRA, destroy, damage, excavate, alter or remove from its original position, or collect, any **archaeological material** or object. This section may apply to any significant archaeological sites that may be discovered. In the case of such chance finds, the heritage practitioner will assist in investigating the extent and significance of the finds and consult with an archaeologist about further action. This may entail removal of material after documenting the find or mapping of larger sections before destruction. No archaeological material was found during the survey.

- **Section 36 of the NHRA**

Section 36 of the NHRA stipulates that no person may, without a permit issued by SAHRA, 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. It is possible that chance burials might be discovered during development of the road infrastructure or agricultural activities. No graves were identified during the survey and the previous owner Mr. Dave Mouraunt was also not aware of any graves on the property.

- **Section 34 of the NHRA**

Section 34 of the NHRA stipulates that no person may alter, damage, destroy, relocate etc., any **building or structure older than 60 years**, without a permit issued by SAHRA or a provincial heritage resources authority. Stone walls which were identified towards the northern section of

the farm *DAISY KOPJE 645JT (portion 11)*, falls outside of the study area and are therefore not applicable here.

- **Section 37 of the NHRA**

This section deals with public monuments and memorials but does not apply in this report.

- **NEMA**

The regulations in terms of Chapter 5 of the National Environmental Management Act, (107/1998), provides for an assessment of development impacts on the cultural (heritage) and social environment and for specialist studies in this regard.

B BACKGROUND TO ARCHAEOLOGY AND HISTORY OF THE STUDY AREA

- **Literature review, museum databases & previous relevant impact assessments**

The study area is located on the farms *ALMA 644JU (portion 10)* & *DAISY KOPJE 645JT (portion 11)* and is located 6 km from the town of Barberton. The farm is accessed from the main road R38 towards Carolina. Swaziland is situated approximately 60 km to the south.

The first evidence of ancient mining occurred between 46 000 and 28 500 years ago during the Middle Stone Age. Hematite or red ochre was mined at Dumaneni (towards the east near Malelane), and is regarded as one of the oldest mines in the world. Iron ore was also mined in the area and a furnace, as well as iron slag was documented.⁸ Myburgh mentioned in his ethnological publication that tuyères belonging to ancient “explorers” of the De Kaap Valley, were unearthed by gold prospectors before the turn of the century, near D.M. Wilson’s office at Kaapse Hoop.⁹

Bushman (or San) presence is evident in the area as research by rock art enthusiasts revealed 109 sites in the Kruger National Park,¹⁰ and over 100 rock art sites at Bongani Mountain Lodge and its immediate surrounds¹¹ (north of Barberton), as well as many sites in the Nelspruit, Rocky’s Drift and White River areas. Thirty-one rock art sites were recorded on the

⁸ Bornman, H., *The Pioneers of the Lowveld*, p. 1.

⁹ A.C. Myburgh, *The Tribes of the Barberton District*, p. 12.

¹⁰ English, M. Die Rotskuns van die Boesmans in die NKW, in *De Vos Pienaar, U., Neem uit die Verlede*, p. 18-24. 1998,

¹¹ Hampson, et al., The rock art of Bongani Mountain Lodge, SA Archaeological Bulletin 57: p. 15.

Mpumalanga Drakensberg Escarpment. Rock art sites were also recorded in Swaziland.^{12 13} One site is recorded by Bergh between Barberton and Nelspruit.¹⁴ The author documented a rock art site north of Kaapse Hoop (on Berlin plantation).¹⁵ The Bushman painters most probably obtained the ochre which was used as a pigment in the paintings, from the Dumaneni ochre mine.^{16 17}

Later Stone Age sites in the Kruger National Park date to the last 2500 years and are associated with pottery and microlith stone tools.¹⁸ The only professionally excavated Early Iron Age site near the area, besides those in the Kruger National Park, is the Plaston site near White River, dating ca 900 AD.¹⁹ No other archaeological excavations have been conducted to date within the study area, which have been confirmed by academic institutions and specialists in the field. Stone walling is abundant in the Lydenburg – Machadodorp – Carolina areas. A stone walled settlement with terracing was recorded by C. van Wyk (Rowe) close to Hazyview,²⁰ as well as several which were documented in the southern parts of the Kruger National Park,²¹ as well as south of Barberton towards Swaziland.²² Stone walls were also found towards the north of the study area (*DAISY KOPJE 645JT portion 11*), near the Suidkaap River.²³

The low country of Barberton lay within the fly-infected area and was not suitable for the keeping of livestock, before the rinderpest came in 1897. Until the tsetse had disappeared, a large part of Barberton district was uninhabitable to pastoralists, and therefore unattractive to any but the poorest of the natives then occupying these parts.²⁴ As soon as the fly disappeared, it changed and the local tribes settled in areas which were previously avoided.

History in the wider vicinity is connected to the study area and is briefly outlined below. In order

¹² Rowe, C. 2009. Heritage Management of Archaeological, Historical and Industrial resources on the Blyde River Canyon Nature Reserve, MA dissertation. Pretoria: UP.

¹³ Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

¹⁴ J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*, p. 5.

¹⁵ Rowe, C. Phase 1 Archaeological impact assessment, survey & management guidelines for Majuba 1 Rock Art site: Berlin Plantation, Kaapsehoop (2012).

¹⁶ Bornman, H. *The Pioneers of the Lowveld*, p. 1.

¹⁷ Masson, J. 2008. Views from a Swaziland Cave. *The Digging Stick*, Vol. 25 no 1: 1-3.

¹⁸ J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*, p. 95.

¹⁹ M.M. Van der Ryst., *Die Ystertydperk*, in J.S. Bergh (red.), *Geskiedenis Atlas van Suid Afrika: Die vier Noordelike Provinsies*. p. 97.

²⁰ C. Van Wyk, *Inspection of Umbhaba Stone-walled settlement, Hazyview*, pp. 1-2.

²¹ Eloff J.F., *Verslag oor Argeologiese Navorsing in die Krugerwildtuin*, June / July, 1982.

²² C. Rowe, Phase 1 AIA & HIA of the Stone Walled settlements on Taurus Plantation, Barberton District, Mpumalanga (2015).

²³ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

²⁴ A.C. Myburgh, *The Tribes of the Barberton District*, p. 14-15.

to place the areas around Barberton in an archaeological context, primary and secondary sources were consulted. Ethnographical and linguistic studies by early researchers such as Zivovogel and Van Warmelo shed light on the cultural groups living in the area since ca 1600. Historic and academic sources by Küsel, Meyer, Voight, Bergh, De Jongh, Evers, Myburgh, Thackeray and Van der Ryst were consulted, as well as historic sources (Makhura and Webb).

Primary sources were consulted from the Pilgrim's Rest Museum Archives for a background on the pre-history and history of the study area. Several circular stone-walled complexes and terraces as well as graves have been recorded in the vicinity of Hazyview²⁵, Bushbuckridge, Graskop and Sabie, clay potsherds and upper as well as lower grinders, are scattered at most of the sites.²⁶ Many of these occur in caves as a result of the Swazi attacks (1900's), on the smaller groups. The SAHRA database for archaeological and historical impact assessments was consulted but revealed no other recent Archaeological Impact assessment reports in the area of Barberton:

The author was involved in desktop studies and surveys in the wider area, such as:

- *Study for the Proposed Eskom Powerlines, Hazyview – Dwarsloop* (2008);
- Phase 1 HIA *portion 64 of the farm The Rest 454JT*, Nelspruit (2009): Undecorated potsherds and recent stone walls, one Early Stone Age hand axe.
- Phase 1 HIA *portion 62 of the farm The Rest 454JT*, Nelspruit (2009): Late Iron age stone walls, undecorated portsherds;
- *Inspection of Umbhaba Stone-walled settlement, Hazyview*, (2001);
- a *Phase 1 Archaeological and Heritage Impact Assessment for 132Kv Powerlines from Kiepersol substation (Hazyview), to the Nwarele substation Dwarsloop* (2002);
- a *Phase 1 Archaeological and Heritage Impact Assessment for a proposed traffic training academy, Calcutta, Mkhuhlu, Bushbuckridge* (2013);
- *Phase 1 Archaeological and Heritage Impact Assessment for the proposed Nkambeni cemetery in Numbi, Hazyview* (2013);
- *Phase 1 Archaeological and Heritage Impact Assessment for proposed agricultural development on the farm SIERAAD, Komatipoort area*, (2013) revealed one possible Late Stone Age borer which was identified in a soil sample, one meter below the surface.

²⁵PRMA: Information file 9/2.

²⁶D. Zivovogel, *The Eastern Sotho, A Tribal, Historical and Linguistic Survey*, p. 3.

- *Phase 1 Archaeological and Heritage Impact Assessment for proposed debushing of natural land for agricultural use: portion 10 of the farm Thankerton 175 JU, Hectorspruit area*, (2014) revealed a few Later Stone Age tools and Iron Age potsherds and upper grinders;
- *Phase 1 Archaeological impact assessment, survey & management guidelines for Majuba 1, Rock Art site: Berlin Plantation, Kaapsehoop* (2012).
- *Phase 1 Archaeological and Heritage Impact Assessment for proposed development on portion 3 of the farm Sunnymead 600JT, Barberton* (2014).
- *Phase 1 Archaeological and Heritage Impact Assessment of the Stone Walled settlements on Taurus Plantation, Barberton District, Mpumalanga*, (2015).
- *Letter of Recommendation for the exemption from a Phase 1 AIA & HIA investigation, proposed footbridge at Avontuur crossing the Nkomazi River, on the farm Avontuur 721JT, near Tjakastad* (2015).
- *Phase 1 Archaeological and Heritage Impact Assessment for the development of 2 tented Camps at Songimvelo Nature Reserve, Eerstehoek, on the farms Laaggenoeg 158IT & Onverwacht 733IT* (2018).

Very little contemporary research has been done on prehistoric African settlements in the study area. Myburgh, in the 1949 publication of *The tribes of the Barberton District*,²⁷ states that practically nothing is known about the pre-historic inhabitants, and that the present Swazi and Tsonga populations are more recent immigrants. Pre-Swazi, possible Sotho-speaking related tribes (according to Myburgh - Pai or Mbayi), left no terracing, but heaps of stone is evident all over the Kaap valley and further east.²⁸

Early ethnographical and linguistic studies by early researchers such as D. Ziervogel and N.J. Van Warmelo, revealed that the immediate study area was mainly inhabited by the Swazi of the *Nkosi clans*, from around the 18th century.^{29 30} (See Map 1: 1935: Van Warmelo). When concentrating on ethnographical history, it is important to include a slightly wider geographical area in order for it to make sense. Van Warmelo based his 1935 survey of *Bantu Tribes of South Africa* on the number of taxpayers in an area. The survey does not include the extended

²⁷ A.C. Myburgh, *The Tribes of the Barberton District*, p. 10-11.

²⁸ A.C. Myburgh, *The Tribes of the Barberton District*, p. 10-11

²⁹N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. pp. 90-92 & 111.

³⁰H. S. Webb, *The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p.16.

households of each taxpayer, so it was impossible to actually indicate how many people were living in one area.³¹

During the middle of the 18th century some Sotho and Swazi groups combined under a fighting chief Simkulu. The tribe so formed became known as the BakaNgomane. The principal settlement of Simkulu was in the vicinity of the confluence of the Crocodile and Komati Rivers. The Swazi under Mswati II (1845), commenced on a career of large scale raids on the prosperous tribal lands to the north of Swaziland. His regiments such as the *Nyatsi* and the *Malelane* brought terror to African homes as far afield as Mozambique.³² During their northern expansion they forced the local inhabitants out of Swaziland, or absorbed them.³³ There is evidence of resistance, but the Eastern Sotho groups who lived in the northern parts of Swaziland, moved mainly northwards.³⁴ This appears to have taken place towards the end of the 18th century,³⁵ when these groups fled from Swaziland to areas such as Nelspruit, Bushbuckridge, Klaserie, Blyde River and Komatipoort.³⁶ Mswati II built a line of military outposts from west to east of the upper Komati River and the Mlambongwane (Kaaop River). At each outpost he stationed regiments to watch and stop the BaPedi returning to their old haunts.³⁷

³¹N.J. van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p.9.

³² Bornman H., *The Pioneers of the Lowveld* p 11.

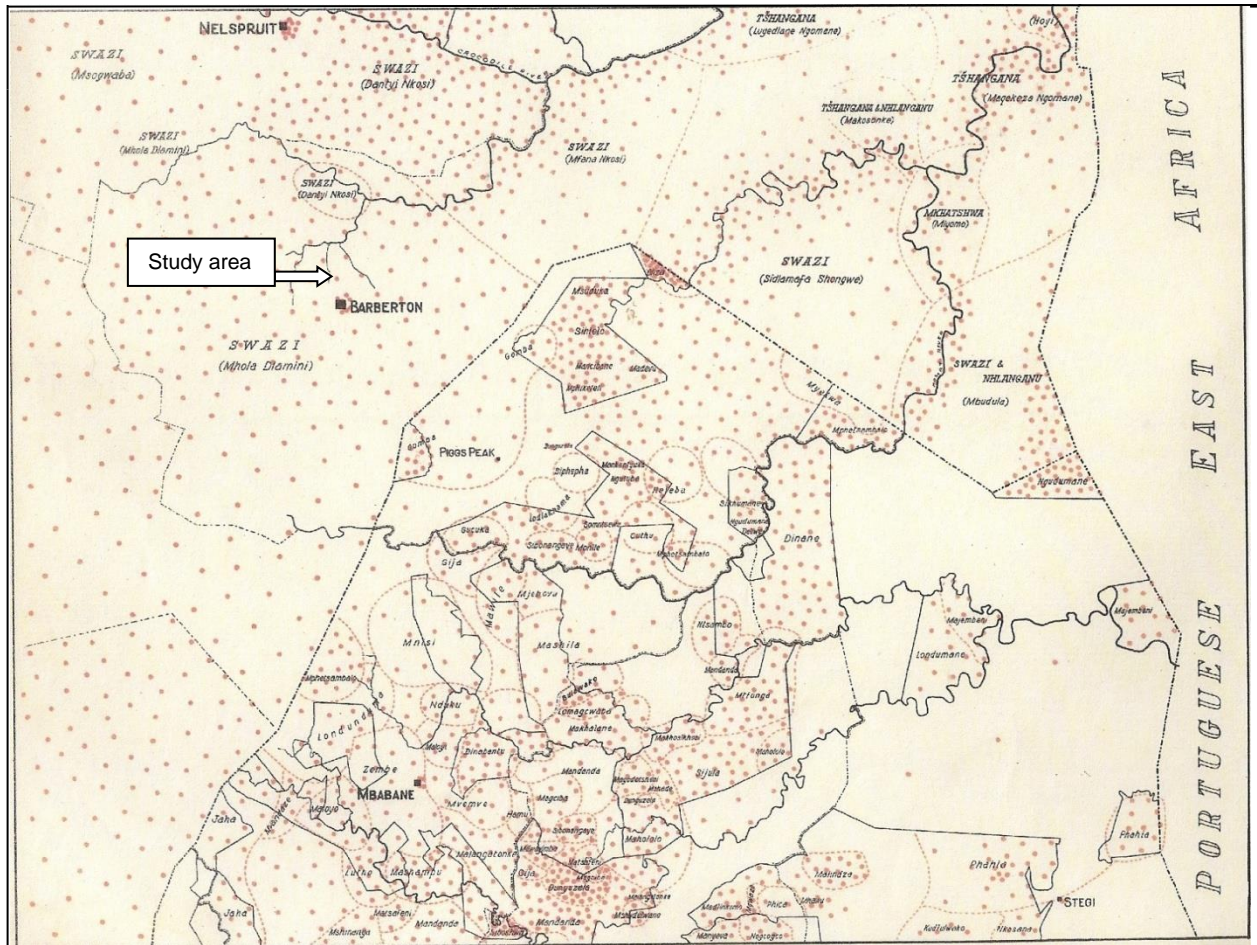
³³A.C. Myburgh, *The Tribes of Barberton District*, p. 10.

³⁴N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*. p. 111.

³⁵H. S. Webb, *The Native Inhabitants of the Southern Lowveld, in Lowveld Regional Development Association, The South-Eastern Transvaal Lowveld*. p. 14

³⁶*Ibid.*, p. 16.

³⁷ Bornman H., *The Pioneers of the Lowveld* p. 12.



MAP 1: Van Warmelo: 1935: Study area is indicated with arrow.

Swazi

The Swazi people descended from the southern Bantu (Nguni) who migrated from central Africa in the 15th and 16th centuries.³⁸ The differences between the Swazi and the Natal Nguni were probably never great, their culture as far as is known from the comparatively little research being carried out, does not show striking differences. Their language is a 'Tekeza' variation of Zulu, but through having escaped being drawn into the mainstream of the Zulus of the *Shaka* period, they became independent and their claim to be grouped apart as a culture is now well founded.³⁹

History of Barberton

Oral history suggests that through the 1700s and 1800s the land was sparsely occupied by the Swazi and other local pastoral people, together with their livestock. The steep and rocky

³⁸ <http://en.wikipedia.org/wiki/Swaziland> p.1.

³⁹ N.J. Van Warmelo, *A Preliminary Survey of the Bantu Tribes of South Africa*, p. 83.

landscape does not provide areas for human livelihoods. Human occupation fluctuated both seasonally and according to the ebb and flow of local conflicts. Substantial settlement was rare, being limited mainly to the larger river valleys.⁴⁰

At the time of European settlement in the 1860's it became a contested border zone. Land deals were struck between the Swazi king and Transvaal colonists, the echoes of which remain to this day. In 1881 gold was discovered by Tom McLachlan who found alluvial gold at Jamestown. This area falls into the hot Lowveld region and malaria was rife. Few diggers were keen to go there until Auguste Roberts discovered gold in Concession Creek in 20 June 1883.⁴¹ Payable gold was also discovered where the Umvoti Creek entered the De Kaap Valley. This resulted in the establishment of the town of Barberton on 24 July 1884. Barberton was named after a digger, Henry Barber.⁴²

At first, Barberton was a small mining camp, but grew when Edwin Bray discovered gold in the hills above Barberton in 1885. He and 14 partners started the Sheba Reef Gold Mining Company. Large amounts of money flowed into Barberton and the first Stock Exchange to operate in the then Transvaal, opened its doors. More buildings were erected, billiard saloons and music halls established. The Criterion and Royal Standard hotels were opened. Barberton was also home to Sir Percy Fitzpatrick, transport rider and author of the book, Jock of the Bushveld.⁴³

The significance of the area became known to the world when alluvial gold was found at Kaapsehoop in 1875. This was followed by the Moodies and Barber's reef discoveries and a subsequent 'gold rush' into the hills above the Suid Kaap river. Barberton's gold rush was quickly spent, soon to be dwarfed by finds on the Witwatersrand in 1886.⁴⁴

The Sheba mine is today one of the oldest and richest working gold mines in the world, having been in production for more than a century. It is estimated that production will continue for several decades to come.⁴⁵

⁴⁰ The Barberton Mountain land: <http://whc.unesco.org/en/tentativelists/5456> Access: 2014-08-09.

⁴¹ Barberton: http://search.wikipedia.org/wiki/barberton_mpumalanga Access: 2014-08-09.

⁴² History of Barberton www.sahistory.org.za/places/barberton Access: 2014-08-09.

⁴³ Barberton: http://search.wikipedia.org/wiki/barberton_mpumalanga Access: 2014-08-09.

⁴⁴ The Barberton Mountain land: <http://whc.unesco.org/en/tentativelists/5456> Access: 2014-08-09.

⁴⁵ Barberton: http://search.wikipedia.org/wiki/barberton_mpumalanga Access: 2014-08-09.

C. DESCRIPTION OF THE AREA TO BE AFFECTED BY THE PROPOSED DEVELOPMENT

The proposed project will involve the following:

- Approximately 39 ha of already disturbed (fallow) land is earmarked for the proposed agricultural development. Existing farm roads will be used.
- The study area is indicated in Map 5.
- The entire proposed area for the development of agriculture was previously used for agricultural lands (pre-2002) which has been fallow for approximately 16 years (see Appendix 2). Sickie bush (*Dichrostachys cinerea*), which indicates previously disturbed areas, are visible in this section as well as other invasive alien trees and bushes such as *Syringa vulgaris* and *Lantana* species (Figs. 4, 7 & 13). Medium trees such as Paperbark thorn (*Acacia sieberiana*) have also established itself on the previously disturbed fallow lands.⁴⁶ (see Figs. 1 & 2). The former owner tried to rehabilitate the agricultural lands with natural vegetation.⁴⁷ The area is zoned as agricultural and no rezoning will take place.
- A SASOL gas pipeline enters the farm *ALMA 644JU (portion 10)*, from the east and exits the farm in the west (see Map 5, gas pipeline is indicated by the yellow line (Figs. 5 & 6).
- A small rocky outcrop on the western border of the farm will not be affected by the proposed development (see Fig. 3).

The previous owner of the farm, Mr. Dave Mouraunt owned the farm from 2002 – 2018, when it was sold to Mr. Nico Wessels & Mr. Gerhard Wessels. The farm was used prior to the year 2002 for cultivation of crops (beans & tobacco). Mr. Mouraunt wanted to encourage natural vegetation to grow back on the disturbed fields, hence current indigenous trees growing on the historic agricultural areas. According to Mr. Mouraunt there were no graves on the farm but he was aware of stone walls towards the north-eastern section on the farm, near the Suidkaap River. The stone walls are situated outside of the current study area and are therefore not in danger of being impacted upon by the proposed development.⁴⁸ A map of the 1920's does not indicate any historic settlements in the study area (see Map 2), although the 1984 topographical map indicates a kraal / ruin on the farm *DAISY KOPJE 645JT (portion 11)* (see Map 3).

The ecozone or vegetation type is categorized as undifferentiated bushveld and woodland (savanna / bushveld) biome. Trees such as the Marula (*Sclerocarya birrea*), Wild Teak

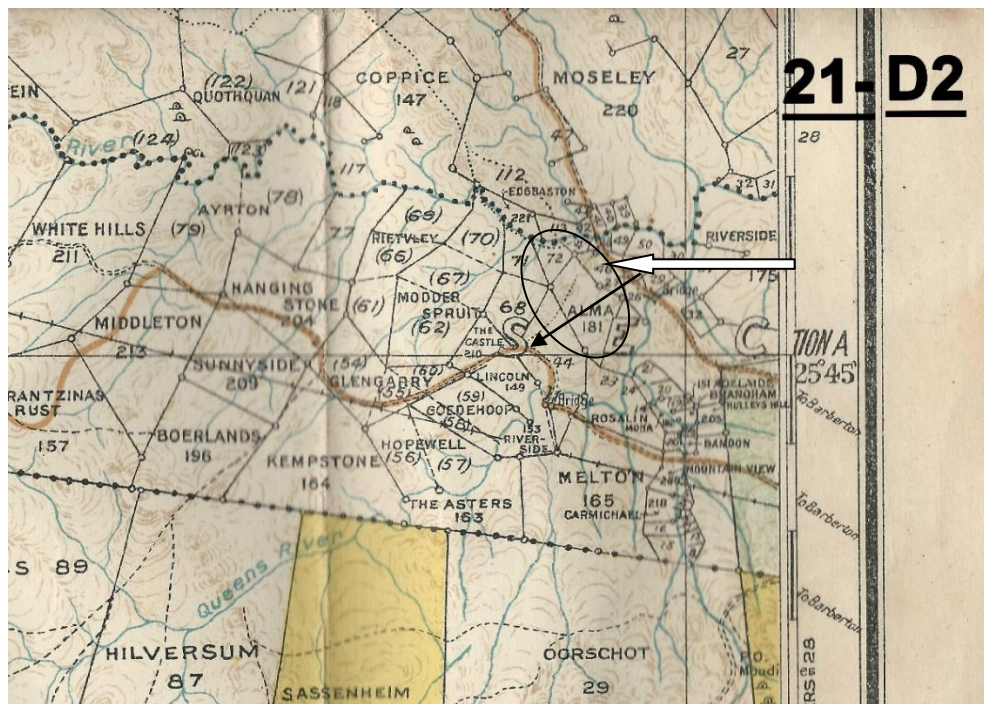
⁴⁶ UMSINSI, BID document, July, 2018.

⁴⁷ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁴⁸ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

(*Pterocarpus angolensis*), Paperbark thorn (*Acacia sieberiana*), Common tree euphorbia (*Euphorbia ingens*), Sickie bush (*Dichrostachys cinerea*), and many Aloe species for eg. *Aloe marlothii*, were observed in the remaining natural sections & rocky outcrops (see Appendix 2).⁴⁹

The soil types in the study area are mainly of a light sandy nature. The mountain land surrounding the Barberton area falls within the Barberton Greenstone Belt or the Barberton Supergroup geological formation. These mountains are amongst the oldest in the world, dating back to 3.5 billion years.⁵⁰ Its varied geology gives rise to steeply incised mountainous terrain that stretches from the Lochiel Plateau in the south to the Nelspruit-Komatipoort area in the north and into Swaziland. It includes part of the Komati river catchment in the south west, the De Kaap catchment in the north and Mahlambanyathi and Crocodile Rivers in the northeast. The hills are rocky with moist grass upland and forested valleys.⁵¹ Barberton became known for its well-known flower, the Barberton Daisy (*Gerbera jamesoni*) which was discovered in 1889 by Robert Jameson.⁵²



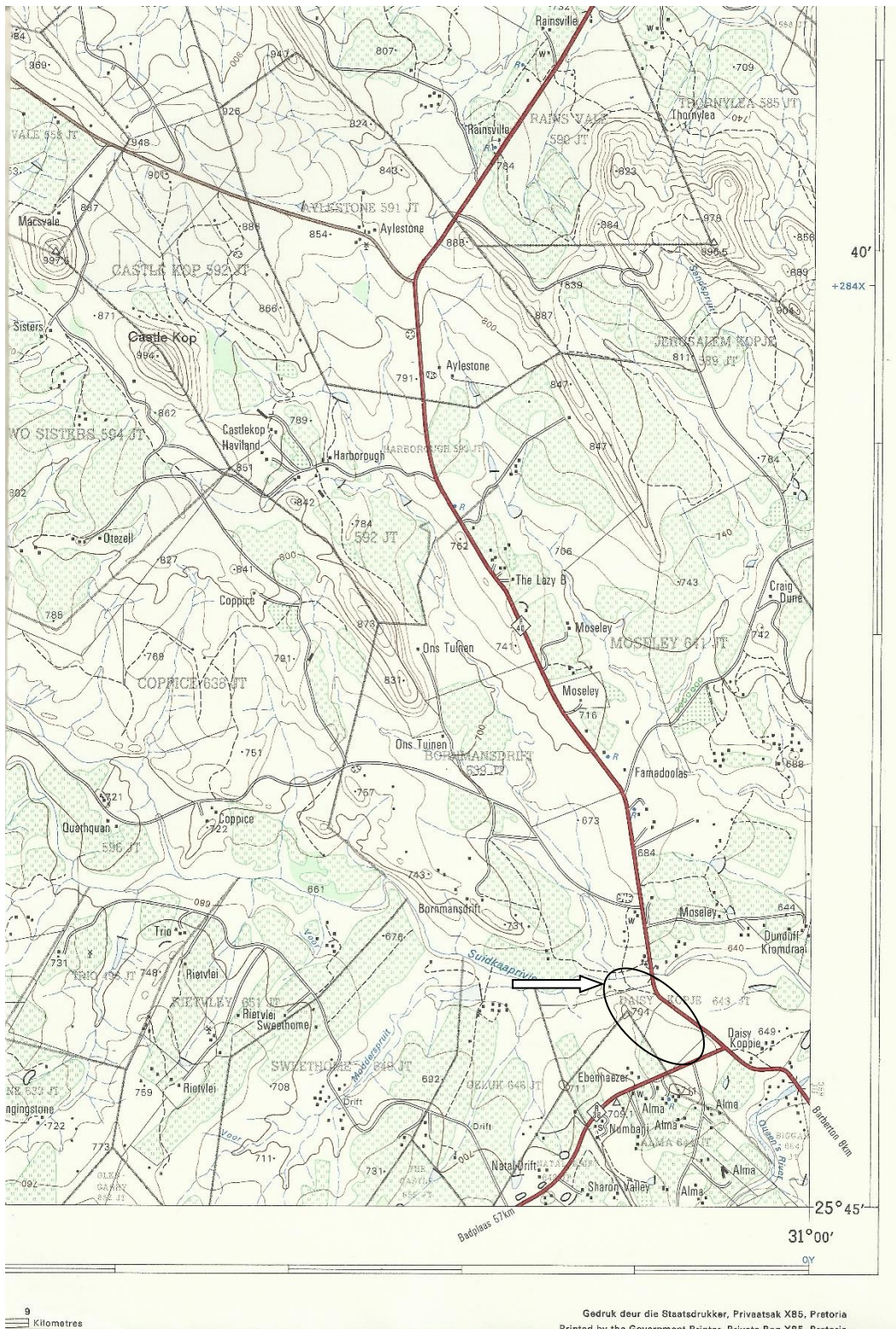
MAP 2: A topographical map of the 1920's does not indicate any black settlements in the study area (the oval indicates the study area).

⁴⁹ Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 9.

⁵⁰ Barberton: http://search.wikipedia.org/wiki/barberton_mpumalanga Access: 2014-08-09.

⁵¹ The Barberton Mountain land: <http://whc.unesco.org/en/tentativelists/5456> Access: 2014-08-09.

⁵² Barberton: http://search.wikipedia.org/wiki/barberton_mpumalanga Access: 2014-08-09.



MAP 3: Topographical map 1:50 000, 2530 DB. An old track and stonewall / ruin is indicated towards the north of the farm (*DAISY KOPJE 643JT, portion 11*) but falls outside of the study area (see oval and arrow).

D. LOCALITY

The proposed project site is located on two farms, *ALMA 644JU (portion 10)* & *DAISY KOPJE 645JT (portion 11)* and is located 6 km north of the town of Barberton. The farm is accessed from the main road R38 towards Carolina. The SuidKaap River forms the northern boundary of the farm *DAISY KOPJE*. Swaziland is situated approximately 60 km to the south.

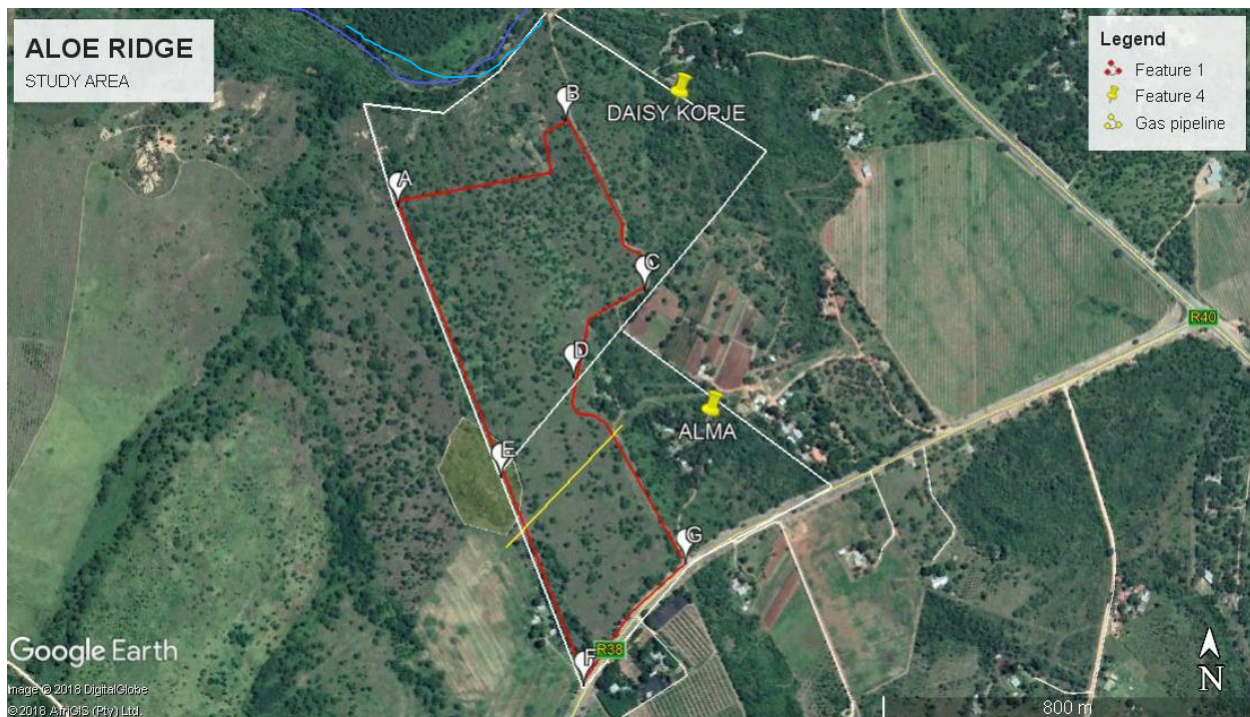
The site falls under the Umjindini Local Municipal jurisdiction, which in turn falls within Ehlanzeni District Municipality, in the Mpumalanga Province (see Maps 2 - 5 and Appendix 1 & 2, Fig. 1 - 2 for the study area).

- **Description of methodology:**

Google images of the site (Map 4 & 5), indicate the study area of the proposed development. These were intensively studied to assess the current and historically disturbed areas and infrastructure. In order to reach a comprehensive conclusion regarding the cultural heritage resources in the study area, the following methods were used:



MAP 4: Google image of the study area in the wider area. Note the extent of agricultural developments in this section.



MAP 5: Google image of study area (red line). The white lines indicate the borders of the two farms, ALMA & DAISY KOPJE. The SuidKaap River forms the northern boundary (blue line).

Description of methodology:

- The desktop study consists mainly of archival sources studied on distribution patterns of early African groups who settled in the area since the 18th century, and which have been observed in past and present ethnographical research and studies.
- Literary sources, books and government publications, which were available on the subject, have been consulted, in order to establish relevant information.
- Several specialists currently working in the field of anthropology and archaeology have also been consulted on the subject.

-Literary sources: A list of books and government publications about prehistory and history of the area were cited, and revealed some information;

-The archaeological databases of SAHRA as well as the National Cultural History Museum were consulted. Heritage Impact Assessment reports of specialists who worked in the area were studied and are quoted in section B.

- The study area is entirely historically fallow lands, which was used for agriculture (green beans and tobacco).
- The site visit consisted of 4 people. The owners, Mr. Nico Wessels and Mr. Gerhard

Wessels pointed features of interest out during the investigation.

- The fieldwork and survey were conducted on foot and with a vehicle. Tracks and paths were mainly used to access areas (See Appendix 1).
- The study area was covered with grassland vegetation, indigenous as well as invasive species. Visibility on the immediate study area was restricted, but the Google images as well as Personal communication with current and previous owners, revealed that the area was historically cultivated lands.
- Disturbed areas on the farm were scrutinized for any archaeological material.
- The relevant data was located with a GPS instrument (Garmin Oregon 750) and plotted. Co-ordinates were within 4 meters of identified sites.
- Evaluation of the resources which might be impacted upon by the footprint, was done within the framework provided by the National Heritage Resources Act, no. 25 (1999).
- Personal communication with relevant stakeholders on the specific study area, were held, such as the applicants (owners) Mr. Nico Wessels & Mr. Gerhard Wessels⁵³, as well as the previous owner Mr. Dave Mouraunt⁵⁴, and environmental specialist Mrs. Ria Wilken.⁵⁵
- GPS co-ordinates were used to locate the perimeters and any heritage features within the study area (Co-ordinates provided by UMSINSI Environmental Specialists):
The perimeters of the study area on the two farms are indicated by the GPS co-ordinates (See Map 5):

GPS CO-ORDINATES		
Location	South	East
A	S 25° 44' 4.07"	E 30° 58' 27.24"
B	S 25° 43' 58.37"	E 30° 58' 40.10"
C	S 25° 44' 10.11"	E 30° 58' 46.33"
D = Border of 2 farms	S 25° 44' 16.11"	E 30° 58' 40.87"
E = Border of 2 farms	S 25° 44' 22.90"	E 30° 58' 35.45"
F	S 25° 44' 36.96"	E 30° 58' 41.79"
G	S 25° 44' 28.63"	E 30° 58' 49.36"

⁵³ Personal information: Mr. Nico & Gerhard Wessels, 2018-07-02.

⁵⁴ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁵⁵ Personal information: Mrs. Ria Wilken, 2018-06-29.

- GPS co-ordinates for the **SASOL gas pipeline**:

GPS CO-ORDINATES		
Location	South	East
Pipeline enters study area from east	S 25° 44' 19.84"	E 30° 58' 44.04"
Pipeline exits study area in west	S 25° 44' 26.45"	E 30° 58' 37.07"

E. DESCRIPTION OF IDENTIFIED SITES

The applicant, Anzel Trading PTY (Ltd) is requesting an agricultural development for 39ha on the farms *ALMA 644JU (portion 10)* & *DAISY KOPJE 645JT (portion 11)*, Barberton.⁵⁶ The investigation revealed that the areas which are applied for in this development, are historically fallow lands which was cultivated before the year 2002. The previous owner, Mr. Dave Mouraunt, who owned the farm from 2002 – 2018, tried to rehabilitate previous agricultural fields to its natural state, and therefore most of the lands are currently covered with prominent Paperbark thorn (*Acacia sieberiana*) species.⁵⁷ Sickle bush (*Dichrostachys cinerea*), which is an indication of previously disturbed areas,⁵⁸ is also present on the study area. The area was cultivated before 2002, with green beans⁵⁹ and tobacco⁶⁰ before 2002. Mr Mouraunt did not encounter any graves but did mention stone walls on the farm.⁶¹ The investigation revealed no archaeological or historical features or graves on the study area. Personal information from the previous owner confirmed that they never encountered any graves of historical features of significance on the farm. The stone walls towards the north of the farm DAISY KOPJE, fall outside of the study area.⁶² (See Appendix 2).

The study area falls within Barberton area. Large sections on the adjacent properties are already cultivated with citrus, macadamias and commercial bluegum plantations (See map 4).

The study area was surveyed on foot and per vehicle, and was covered with grassland vegetation, indigenous as well as invasive species. Visibility on the immediate study area was restricted, but the Google images as well as personal communication with current and previous

⁵⁶ UMSINSI, BID document, July, 2018.

⁵⁷ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁵⁸ Van Wyk, B., & Van Wyk P., Field Guide to Trees of Southern Africa, 1997, p. 9.

⁵⁹ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁶⁰ Personal communication: Mr. Gerhard Wessels, 2018-07-02.

⁶¹ Personal communication: Mr. Dave Mouraunt, 2018-07-09.

⁶² Personal communication: Mr. Dave Mouraunt, 2018-07-09.

owners, revealed that the area was historically cultivated lands. Existing tracks and paths were mainly used to access areas. The application for agricultural lands will not include any virgin land sections. No archaeological or historical features or graves were observed during the investigation.

F. DISCUSSION ON THE FOOTPRINT OF THE PROPOSED DEVELOPMENT

<i>ACT</i>	<i>COMPO- NENT</i>	<i>IMPLICATION</i>	<i>RELEVANCE</i>	<i>COMPLIANCE</i>
NHRA	S 34	Impact on buildings and structures older than 60 years	None present in the study area	None
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	None present	None
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	HIA done
NEMA	EIA regulations	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

- **Summarised identification and cultural significance assessment of affected heritage resources: General issues of site and context:**

<i>Context</i>		
Urban environmental context	No	NA
Rural environmental context	No	Vacant land
Natural environmental context	No	Small sections are virgin land.
<i>Formal protection (NHRA)</i>		

Context		
(S. 28) Is the property part of a protected area?	No	NA
(S. 31) Is the property part of a heritage area?	No	NA
Other		
Is the property near to or visible from any protected heritage sites	Yes	Near the Barberton Makhonjwa Mountain Lands World Heritage site
Is the property part of a conservation area of special area in terms of the Zoning scheme?	No	NA
Does the site form part of a historical settlement or townscape?	No	NA
Does the site form part of a rural cultural landscape?	No	NA
Does the site form part of a natural landscape of cultural significance?	No	NA
Is the site adjacent to a scenic route?	No	NA
Is the property within or adjacent to any other area which has special environmental or heritage protection?	Yes	Near the Barberton Makhonjwa Mountain Lands World Heritage site
Does the general context or any adjoining properties have cultural significance?	No	NA

Property features and characteristics		
Have there been any previous development impacts on the property?	Yes	The study area was historically cultivated lands
Are there any significant landscape features on the property?	No	NA

Property features and characteristics		
Are there any sites or features of geological significance on the property?	No	NA
Does the property have any rocky outcrops on it?	Yes	Very small rocky outcrop in virgin land section on western border
Does the property have any fresh water sources (springs, streams, rivers) on or alongside it?	Yes	The Suidkaap River forms the northern border of the farm <i>DAISY KOPJE</i>

Heritage resources on the property		
Formal protection (NHRA)		
National heritage sites (S. 27)	No	NA
Provincial heritage sites (S. 27)	No	NA
Provincial protection (S. 29)	No	NA
Place listed in heritage register (S. 30)	No	NA
General protection (NHRA)		
Structures older than 60 years (S. 34)	No	NA
Archaeological site or material (S. 35)	No	NA
Palaeontological site or material (S. 35)	No	NA
Graves or burial grounds (S. 36)	No	NA
Public monuments or memorials (S. 37)	No	NA
Other		

Heritage resources on the property		
Any heritage resource identified in a heritage survey (author / date / grading)	No	NA
Any other heritage resources (describe)	No	NA

NHRA S (3)2 Heritage resource category	ELE- MENTS	INDICATORS OF HERITAGE SIGNIFICANCE										RISK	
		His tori cal	Rar e	Scie ntifi c	Typi cal	Tech - nolo gical	Aes theti c	Pers on / com muni ty	Land mark	Mate rial con ditio n	Sust aina bility		
Buildings / structures of cultural significance	No	No	No	No	No	No	No	No	No	No	No	No	
Areas attached to oral traditions / intangible heritage	No	No	No	No	No	No	No	No	No	No	No	No	-
Historical settlement/ townscapes	No	-	-	-	-	-	-	-	-	-	-	-	-
Landscape of cultural significance	No	-	-	-	-	-	-	-	-	-	-	-	-
Geological site of scientific/ cultural importance	No	-	-	-	-	-	-	-	-	-	-	-	-

NHRA	ELE-	INDICATORS OF HERITAGE SIGNIFICANCE										RISK	
Archaeological / palaeontological sites	No	-	-	-	-	-	-	-	-	-	-	-	-
Grave / burial grounds	No	-	-	-	-	-	-	-	-	-	-	-	-
Areas of significance related to labour history	No	-	-	-	-	-	-	-	-	-	-	-	-
Movable objects	No	-	-	-	-	-	-	-	-	-	-	-	-

- **Summarised recommended impact management interventions**

NHRA S (3)2 Heritage resource category	SITE	IMPACT SIGNIFICANCE Cultural significance rating		Impact management	Motivation
		Cultural significance	Impact significance		
Buildings / structures of cultural significance	No	No	None	-	-
Areas attached to oral traditions / intangible heritage	No	None	None	-	-
Historical settlement/ townscape	No	None	None	-	-

NHRA S (3)2	SITE	IMPACT SIGNIFICANCE		Impact management	Motivation
		Cultural significance rating			
Landscape of cultural significance	No	None	None	-	-
Geological site of scientific/ cultural importance	No	None	None	-	-
Archaeological / palaeontological sites	No	None	None	-	-
Grave / burial grounds	No	No	None	-	-
Areas of significance related to labour history	No	None	None	-	-
Movable objects	No	None	None	-	-

ACT	COMPONENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S 34	Impact on buildings and structures older than 60 years	None present	None
NHRA	S35	Impacts on archaeological and palaeontological heritage resources	None present	None
NHRA	S36	Impact on graves	None present	None

ACT	COMPONENT	IMPLICATION	RELEVANCE	COMPLIANCE
NHRA	S37	Impact on public monuments	None present	None
NHRA	S38	Developments requiring an HIA	Development is a listed activity	Full HIA
NEMA	EIA regulation	Activities requiring an EIA	Development is subject to an EIA	HIA is part of EIA

G. STATEMENT OF SIGNIFICANCE & EVALUATION OF HERITAGE RESOURCES

Section 38 of the NHRA, rates all heritage resources into National, Provincial or Local significance, and proposals in terms of the above is made for all identified heritage features.

• Evaluation methods

Site significance is important to establish the measure of mitigation and / or management of the resources. Sites are evaluated as *HIGH (National importance)*, *MEDIUM (Provincial importance)* or *LOW, (local importance)*, as specified in the NHRA. It is explained as follows:

• National Heritage Resources Act

The National Heritage Resources Act no. 25, 1999 (NHRA) aims to promote good management of the national estate, and to enable and encourage communities to conserve their legacy so that it may be bequeathed to future generations. Heritage is unique and it cannot be renewed and contributes to redressing past inequities.⁶³ It promotes previously neglected research areas.

All archaeological and other cultural heritage resources are evaluated according to the NHRA, section 3(3). A place or object is considered to be part of the national estate if it has cultural significance or other special value in terms of:

- (a) its importance in the community, or pattern of South Africa's history;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (g) its strong or special association with a particular community or cultural group for social,

⁶³National Heritage Resources Act, no. 25 of 1999. p. 2.

cultural or spiritual reasons;

(h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.⁶⁴

H. RECOMMENDATIONS & CONCLUSION

The proposed project site on the *farms ALMA 644JU (portion 10) & DAISY KOPJE 645JT (portion 11)*, is situated approximately 6km from Barberton. The applicant is proposing the development of agricultural fields on 39ha (historically disturbed land). This proposed area for development was last used as agricultural lands before the year 2002. The footprint of the agricultural fields will stay the same as before, and no virgin land will be developed.

The previous owner confirmed that the study area was used for agricultural activities before 2002. No graves are present on the two farms and stone walls which are present towards the north, fall outside of the study area. The survey revealed no archaeological or historical features or structures in the study area.

It is recommended that the owners be made aware that distinct archaeological material or human remains may only be revealed during the development of agricultural operations. In such instance, a qualified archaeologist must be contacted to monitor the activities and make a recommendation. Based on the survey and the findings in this report, Adansonia Heritage Consultants state that there are no compelling reasons which may prevent the proposed development to continue.

Adansonia Heritage Consultants cannot be held responsible for any archaeological material or graves which were not located during the survey.

⁶⁴National Heritage Resources Act, no. 25 of 1999. pp. 12-14

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PERSONAL INFORMATION

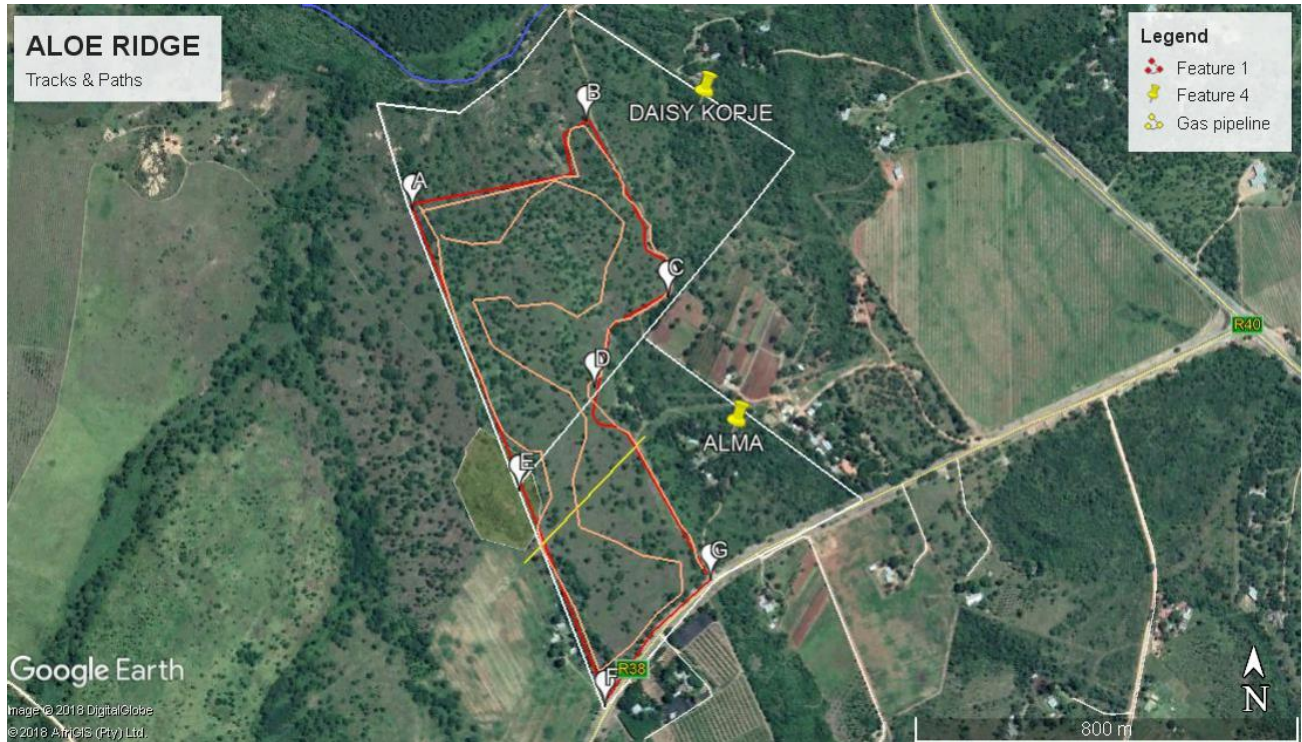
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APPENDIX 1

Tracks and Paths used to access the study area



- The red line indicates the study area;
- The pink line indicates the tracks and paths used during the survey;
- The white line indicates the borders of the farms;
- The blue line is the Suidkaap River.