

Phase 1 Archaeological Impact Assessment on portions 60 and 64  
of the remainder of the farm Sterkspruit 33 JT in Lydenburg,  
Mpumalanga Province.

Compiled by



For Tua Conserva Environmental Practitioners

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## **Executive summary**

An Archaeological Impact assessment was undertaken by Kudzala Antiquity CC for Tua Conserva Environmental Practitioners on portions 60 and 64 of the remainder of the farm Sterkspruit 33 JT in Lydenburg, Mpumalanga Province. The surveyed area is approximately 92 ha in extent. The survey was conducted on foot in an effort to locate archaeological remains and historical features. Some 20 sites were documented and they consist of features ranging from Late Iron Age stone walling, some historic farmer stone walling, historic buildings and the ruins of 20<sup>th</sup> century dwellings

**Disclaimer:** *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. Kudzala Antiquity CC will not be held liable for such oversights or for costs incurred as a result of such oversights.*

## 1. Introduction

Kudzala Antiquity was commissioned to conduct an Archaeological Impact Assessment (AIA) on portions 60 and 64 of the farm Sterkspruit 33 JT. The affected area is located in the town of Lydenburg which is located within the boundaries of the Thaba Chweu Local Municipality. The survey was conducted for Tua Conserva Environmental Practitioners.

The study forms part of an Environmental Impact Assessment as required by legislation, the National Heritage Resources Act (Act 25, 1999) and the NEMA (Environmental Management Act, 107 of 1998). This act requires of individuals (engineers, farmers, mines and industry) or institutions to have impact assessment studies undertaken whenever any development activities are planned. This is to ensure that heritage features or sites that qualify as part of the National Estate are not damaged or destroyed. Heritage resources considered to be part of the national estate include those that are of cultural significance or have other special value to the present community or future generations.

The national estate may include:

- places, buildings, structures and equipment of cultural significance;
- places to which oral traditions are attached or which are associated with living heritage;
- historical settlements and townscapes;
- landscapes and natural features of cultural significance;
- geological sites of scientific or cultural importance;
- archaeological and palaeontological sites;
- graves and burial grounds including:
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
  - (v) historical graves and cemeteries; and

other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);

- sites of significance relating to slavery in South Africa;
- movable objects including:
  - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
  - (ii) objects to which oral traditions are attached or which are associated with living heritage;
  - (iii) ethnographic art and objects;
  - (iv) military objects
  - (v) objects of decorative or fine art;
  - (vi) objects of scientific or technological interest; and

books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Cultural resources are unique and non-renewable physical phenomena (of natural occurrence or made by humans) that can be associated with human (cultural) activities (Van Vollenhoven, 1995:3).

These would be any man-made structure, tool, object of art or waste that was left behind on or beneath the soil surface by historic or pre-historic communities. These remains, when studied in their original context by archaeologists, are interpreted in an attempt to understand, identify and reconstruct the activities and lifestyles of past communities. When these items are disturbed from their original context, any meaningful information they possess is lost, therefore it is important to locate and identify such remains before construction or development activities commence.

An AIA consists of three phases, this document deals with the first phase. This (phase 1) investigation is aimed at getting an overview of cultural resources in a given area, thereby assessing the possible impact a proposed development may have on these resources.

When the archaeologist encounters a situation where the planned project will lead to the

destruction or alteration of an archaeological site, a second phase in the survey is normally recommended. During a phase two investigation, the impact assessment of development activities on identified cultural resources is intensified and detailed investigation into the nature and origin of the cultural material is undertaken. Normally at this stage, archaeological excavation is carried out in order to document and preserve the cultural heritage.

Phase three consists of the compiling of a management plan for the safeguarding, conservation, interpretation and utilization of cultural resources (Van Vollenhoven, 2002).

Continuous communication between the developer and surveyor after the initial report has been compiled may result in the modification of a planned route or development to incorporate or protect existing archaeological sites.

## **2. Description of surveyed area**

The study area falls within the Thaba Chweu Local Municipality, Lydenburg and within Mpumalanga Province. The survey was carried out on approximately 92 ha of agricultural land located in Lydenburg. The survey was conducted on foot in an effort to locate cultural remains.

## **3. Methodology**

The methodological approach for this study should meet the requirements of relevant heritage legislation. A desktop archival study followed by a physical survey of the impacted areas was conducted. This was done to assess whether graves or features of historical or archaeological value exist on the property.

During this survey, residents on the property were consulted to establish whether any graves are located in the area. Two informants were consulted.

SAHRA (South African Heritage Resources Agency) and the relevant legislation (Act 25 of 1999, National Heritage Resources Act) require that the following components be

included in an Archaeological impact assessment.

- Archaeology
- Shipwrecks
- Battlefields
- Graves
- Structures older than 60 years
- Living heritage
- Historical settlements
- Landscapes
- Geological sites
- Palaeontological sites and objects

All the above-mentioned heritage components are addressed in this report, except shipwrecks, geological sites and palaeontological sites and objects.

The purpose of the archaeological study is to establish the whereabouts and nature of cultural heritage sites should they occur on the surveyed area. This includes settlements, structures and artifacts which have value for an individual or group of people in terms of historical, archaeological, architectural and human (cultural) development.

It is the aim of this study to locate and identify such objects or places in order to assess whether they are of significance and warrant further investigation or protection. This is done by means of foot surveys, a desktop archival study as well as a study of the results

of previous archaeological work in the area.

### **3.1. Desktop study**

The purpose of the desktop study is to compile as much information as possible on the heritage resources of the area. This helps to provide an historical context for located sites. Sources used for this study included published and unpublished documents, archival material and maps. Material obtained from the following institutions or individuals were consulted:

- Lydenburg Museum, Lydenburg
- Published and unpublished archaeological reports and articles
- Published and unpublished historical reports and articles
- The Dept. of Roads and Transport, Lydenburg office

### **3.2. Significance of sites**

The South African Heritage Resources Agency (SAHRA) formulated guidelines for the conservation of all cultural resources and therefore also divided such sites into three main categories. These categories might be seen as guidelines that suggest the extent of protection a given site might receive. They include sites or features of local (Grade 3) provincial (Grade 2) and national (Grade 1) significance.

For practical purposes the surveyor uses his own classification for sites or features and divides them into three groups, those of low or no significance, those of medium significance, those of high significance.

Within the establishment of the significance of a site or feature there are certain values or dimensions connected to significance which may be allocated to a site. These include:

- **Types of significance**

The site's scientific, aesthetic and historic significance or a combination of these is established.

- **Degrees of significance**

The archaeological or historic site's rarity and representative value is considered. The



condition of the site is also an important consideration.

- **Spheres of significance**

Sites are categorized as being significant in the international, national, provincial, regional or local context. Significance of a site for a specific community is also taken into consideration.

It should be noted that to arrive at the specific allocation of significance of a site or feature, the specialist considers the following:

- Historic context
- Archaeological context or scientific value
- Social value
- Aesthetic value

More specific criteria used by the specialist in order to allocate value or significance to a site include:

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

In short, archaeological and historic sites that contain data which may significantly enhance the knowledge that archaeologists currently have about our cultural heritage should be considered highly valuable. In all instances these sites should be preserved and not damaged during construction activities. When development activities do however jeopardize the future of such a site, a second and third phase in the Cultural Resource Management (CRM) process is normally advised which entails the excavation or rescue excavation of cultural material along with a management plan to be drafted for the

preservation of the site or sites.

Graves are considered very sensitive sites and should never under any circumstances be jeopardized by development activities. Graves are incorporated in the National Heritage Resources Act under section 36 and in all instances where graves are found by the surveyor, the recommendation would be to steer clear of these areas. If this is not possible or if construction activities have for some reason damaged graves, specialized consultants are normally contacted to aid in the process of exhumation and reinterment of the human remains. This implies that construction activities at the particular grave site will be brought to a halt temporarily.

## **4. History and archaeology**

### **4.1. Historic background**

The first inhabitants of the eastern Lowveld were probably the San or Bushmen. They were a nomadic people who lived together in small family groups and relied on hunting and gathering of food for survival. Evidence of their existence is to be found in numerous rock shelters throughout the Lowveld where some of their rock paintings are still visible. A number of these shelters have been documented in the Nelspruit area (Bornman, 1995; Schoonraad in Barnard, 1975).

It has been argued that the red ochre source for these paintings is to be found at Dumaneni, near Malelane (Bornman, 1995).

It was only later that Bantu-speaking tribes moved into this area from the northern parts of Southern Africa and settled here. This period is referred to as the Early Iron Age (AD 200-1500 approx.). These were presumably Sotho-Tswana herder groups.

Various historians and ethnographers describe that the Lowveld was frequented by Swazi and Sotho-Tswana groups during historic times i.e. Late Iron Age times during the period AD 1500-1800. (Barnard, 1975; Bergh, 1998; Bornman, 2002; Herbst, 1985; Myburgh, 1949).

Old trade routes were well established before the period of Colonial expansion and these routes mainly existed as a direct consequence of metallurgy and mining for iron, tin, copper and some gold to make weapons, agricultural equipment and ornaments (Bergh, 1998:103). The earliest signs of iron mining and working in the old Transvaal dates to approximately 300 AD and copper mining and working in Southern Africa may have been practiced as early as 620 AD (Bergh, 1998:103).

These people were responsible for the establishment of large centres like Monomotapa the Zimbabwe Complex and also the famed Mapungubwe in the Limpopo valley. At around 900 AD Arab merchants established a trade post at Sofala (Beira). Since the start of the 11<sup>th</sup> century, these Arabs had trade relations with the people of Zimbabwe.

Textiles, porcelain and glass beads were traded for gold, ivory and other minerals.

An ancient trade route passed close-by the current Nelspruit and started from Delagoabay

in a westward direction through the Lowveld towards the gold fields of Lydenburg, by passing through Malalapoort, the Nkhomati and Crocodile Rivers to Skipberg in the current Kruger National Park close-by the place where Pretoriuskop Rest Camp is located. From here onwards there were two possible routes up the mountains to reach the goldfields. The first one passed by Spitskop (Sabie) and from there on to Lydenburg. The second passed south of the “Devils Knuckles” to Lydenburg. The Voortrekkers used this route in 1845 when making the wagon route between Ohrigstad and Delagoabay (Berg, 1998: 104).

In 1721 Dutch sailors reached Delagoabay and settled there for nine years, during this time they launched a number of expeditions inland. During August 1723 lieutenant Jan Steffler and 17 men launched the first of these expeditions but they were ambushed by natives shortly after crossing the Lebombo Mountains. Exactly where they crossed the mountains is uncertain but it is possible that they were actually in northern Swaziland when they were attacked. Steffler succumbed as a result of this ambush and his followers returned to Delagoabay (Bergh, 1998:116).

A second attempt to create an inland route took place two years later in June 1725 when Francois de Cuiper and 34 men departed from Delagoabay and travelled in a north-western direction. They reached Gomondwano in the current Kruger National Park where they were also attacked by a local tribe. This resulted in them also having to return to Delagoabay. Although this attempt was also not successful, it is seen as the first European intrusion into this northern area (Bergh, 1998:116).

## 4.2. Historic period and the establishment of Lydenburg

Lydenburg is a major agricultural and mining centre situated between the Sterkspruit and Dorps Rivers, on the Mpumalanga escarpment. It is a convenient stopover on the tourist routes to Pilgrim's Rest, Sabie and the Lowveld and also to Limpopo. The climate is typical of the Mpumalanga middleveld (altitude 1424m) with cool to cold nights and warm days. Dams, rivers and open vleis are an attractive feature of the area.

Voortrekker pioneers had been exploring the area around Lydenburg since the mid – 1800's. The Voortrekkers in Natal, Free State and Transvaal, used the Port Natal (Durban) harbour for their trading. In 1843 the British annexed Natal. The trekkers needed a harbour for free trade as well as to receive visitors, especially schoolteachers and preachers from the Netherlands. After several attempts, Potgieter and his followers eventually succeeded in finding a route to Delagoa Bay (Maputo) in Mozambique. An agreement between Potgieter and the Portuguese governor would allow the Trekkers to stay inland, four days' journey from the bay.

Smellekamp, a dutch merchant, who had been refused dockage at Port Natal by the British, was eager to trade with the trekkers and promised to bring a ship with goods as well as schoolteachers and preachers to the bay.

At that time, Potchefstroom was the capital of Transvaal. On his numerous trips to the north, Andries Potgieter kept a lookout for a suitable place to settle, closer to a harbour and further from the British. Such a place, well-watered and abounding in vegetation was identified and in July of 1845, Andries Potgieter accompanied by W.F. Joubert and his followers from Natal, established the new capital north of the 26<sup>th</sup> Latitude and 300 km west of Delagoa Bay. The town was named Andries Ohrigstad. Three hundred families settled at Ohrigstad in 1846.

A severe problem with malaria and the inability of Joubert and Potgieter to reconcile their differences, caused Potgieter to once again move north to the Zoutpansberg to establish Schoemansdal with a group of followers. Because of the malaria the group that stayed

behind and who functioned under the Volksraad, decided to find a place with a healthier climate. Thus Lydenburg was founded in January 1850 and was named after the suffering at Ohrigstad ('Lyden' the dutch word for 'suffering')

#### **4.2.1. Lydenburg and the Anglo-Boer War (1899-1902)**

Features associated with the Anglo-Boer War history of the area is indicated in the direct vicinity of the proposed development area. Background information regarding this period of the area's history will be highlighted.

On September 6, 1900, the town of Lydenburg surrendered to British forces under command of Sir Redvers Buller. As a result, two days later the battle of Paardeplaats took place between Boer and Brit in an effort to gain control of Mauchsberg, a strategic mountain overlooking the town. The town was occupied by British forces throughout the duration of the war and numerous sources describe these times. One account, the diary of E.A. Mackey (Lydenburg News, September 3, 1948: 1&2), is particularly descriptive:

“(Lydenburg) was now surrounded with barbed wire with forts and gun emplacements at every corner. The streets were crowded; every house and building was bursting with soldiers, equipment and stores; the market and church squares and other open spaces were covered with tents.” (Birkholtz, 2006).

### **4.3. Archaeological history of the area**

#### **4.3.1. Early Iron Age**

The period referred to as the Early Iron Age (AD 200-1500 approx.) started when presumably Karanga (north-east African) herder groups moved into the north eastern parts of South Africa. It is believed that these people may have been responsible for making of the famous Lydenburg Heads, ceramic masks dating to approximately 600 AD.

Ludwig von Bezing was a boy of more or less 10 years of age when he first saw pieces of the now famous Lydenburg heads in 1957 while playing in the veld on his father's farm near Lydenburg. Five years later von Bezing developed an interest in archaeology and went back to where he first saw the shards. Between 1962 and 1966 he frequently visited the Sterkspruit valley to collect pieces of the seven clay heads. Von Bezing joined the archaeological club of the University of Cape Town when he studied medicine at this institution. He took his finds to the university at the insistence of the club. He had not only found the heads, but potsherds, iron beads, copper beads, ostrich eggshell beads, pieces of bones and millstones. Archaeologists of the University of Cape Town and WITS Prof. Ray Innskeep and Dr Mike Evers excavated the site where von Bezing found the remains. This site and in particular its unique finds (heads, clay masks) instantly became internationally famous and was henceforth known as the Lydenburg Heads site. Two of the clay masks are large enough to probably fit over the head of a child, the other five are approximately half that size. The masks have both human and animal features, a characteristic that may explain that they had symbolic use during initiation- and other religious ceremonies. Carbon dating proved that the heads date to approximately 600 AD and were made by Early Iron Age people. These people were Bantu herders and agriculturists and probably populated Southern Africa from areas north-east of the Limpopo river. Similar ceramics were later found in the Gustav Klingbiel Nature Reserve and researchers believe that they are related to the ceramic wares (pottery) of the Lydenburg Heads site in form, function and decorative motive. This sequence of pottery is formally known as the Klingbiel type pottery. No clay masks were found in similar context to this pottery sequence.

Two larger heads and five smaller ones make up the Lydenburg find. The heads are made of the same clay used in making household pottery. It is also made with the same technique used in the manufacture of household pottery. The smaller heads display the modeling of a curved forehead and the back neck as it curves into the skull. Around the neck of each of the heads, two or three rings are engraved horizontally and are filled in with hatching marks to form a pattern. A ridge of clay over the forehead and above the ears indicates the hairline. On the two larger heads a few rows of small clay balls indicate hair decorations. The mouth consists of lips – the smaller heads also have teeth. The seventh head has the snout of an animal and is the only head that represents an animal.

Some archaeological research was done during the 1970's at sites belonging to the EIA (Early Iron Age), location Plaston, a settlement close to White River (Evers, 1977). This site is located on a spur between the White River and a small tributary. It is situated on holding 119 at Plaston.

The site was discovered during house building operations when a collection of pottery shards was excavated. The finds consisted of pottery shards both on the surface and excavated.

Some of the pottery vessels were decorated with a red ochre wash. Two major decoration motifs occurred on the pots:

- Punctuation, using a single stylus and
- Broadline incision, the more common motif

A number of Early Iron Age pottery collections from Mpumalanga and Limpopo may be compared to the Plaston sample. They include Silver Leaves, Eiland, Matola, Klingbiel and the Lydenburg Heads site. The Plaston sample is distinguished from samples of these sites in terms of rim morphology, the majority of rims from Plaston are rounded and very few beveled. Rims from the other sites show more beveled rims (Evers, 1977:176).

Early Iron Age pottery was also excavated by archaeologist, Prof. Tom Huffman during 1997 on location where the Riverside Government complex is currently situated (Huffman, 1998). This site known as the Riverside site is situated a few kilometers north of Nelspruit next to the confluence of the Nelspruit and Crocodile River. It was



discovered during the course of an environmental impact assessment for the new Mpumalanga Government complex/ offices. A bulldozer cutting exposed storage pits, cattle byres, a burial and midden on the crest of a gentle slope. Salvage excavations conducted during December 1997 and March 1998 recovered the burial and contents of several pits.

One of the pits contained among other items, pottery dating to the eleventh century (AD 1070 ± 40 BP) this relates the pottery to the Mzonjani and Broederstroom phases. The early assemblage belongs to the Kwale branch of the Urewe tradition.

During the early 1970's Dr Mike Evers of the University of the Witwatersrand conducted fieldwork and excavations in the Eastern Transvaal. Two areas were studied, the Letaba area south of the Groot Letaba River, west of the Lebombo Mountains, east of the great escarpment and north of the Olifants River. The second area was the Eastern Transvaal escarpment area between Lydenburg and Machadodorp.

These two areas are referred to as the Lowveld and escarpment respectively. The earliest work on Iron Age archaeology was conducted by Trevor and Hall in 1912. This revealed prehistoric copper-, gold- and iron mines. Schwelinus (1937) reported smelting furnaces, a salt factory and terraces near Phalaborwa. In the same year D.S. van der Merwe located ruins, graves, furnaces, terraces and soapstone objects in the Letaba area.

Mason (1964, 1965, 1967, 1968) started the first scientific excavation in the Lowveld which was followed by N.J. van der Merwe and Scully. M. Klapwijk (1973, 1974) also excavated an Early Iron Age (EIA) site at Silverleaves and Evers and van den Berg (1974) excavated at Harmony and Eiland, both EIA sites.

Recent research by the National Cultural History Museum resulted in the excavation of an Early Iron Age site in Sekhukuneland, known as Mototolong (Van Schalkwyk, 2007). The site is characterized by four large cattle kraals containing ceramics which may be attributed to the Mzonjani and Doornkop occupational phases.

### 4.3.3. Late Iron Age

The later phases of the Iron Age (AD 1600-1800's) is represented by various tribes including Ndebele, Swazi, BaKoni, Pedi and smaller tribes such as the Pai, Pulana and marked by extensive stonewalled settlements. These are found throughout the Mpumalanga highveld and particularly around Lydenburg, Badfontein, Sekhukuneland, Roosenekal and Steelpoort. During the *difaqane* (early 1820's) the Ndzundza Ndebele crossed the Olifants River close to Middelburg. They continued their presence in the area. At the time of European contact, the Pedi dominated the Lydenburg and surrounding area. According to oral tradition, the ruling dynasty, the Maroteng, was originally BaKgatla who moved into Mpumalanga from the Pretoria/Rustenburg area in about 1650 AD (Hunt 1931; Legassick 1969). To the west in Botswana, this was a time of severe drought that contributed to a great loss of cattle and human movement (Tlou & Campbell 1997). This drought is recorded in tree rings (Norstroom et al.) and the widespread burning of granaries as a ritual of cleansing (Huffman 2009). Perhaps these unfavourable conditions caused the dynasty to move east. The Maroteng established a new BoPedi in the area between the Olifants and Steelpoort rivers: the north/south trending Leolo Mountains run through the centre. These early Pedi are not associated with stonewalling. When they settled in the new BoPedi, they found that the Mongatane, a BaRoka chiefdom, commanded the area (Hunt 1931; Bergh 1998) and they paid tribute to them. Evidentially, the Roka at this time were also not associated with stonewalling. The other main group was the Koni who mostly lived south of the Leolo Mountains (Hunt 1931; Mönnig 1967; Bergh 1998). These Koni are traditionally associated with stonewalled settlements.

It is important to note that the Badfontein area was traditionally associated with Koni (Rasmussen 1975). Koni is a Sotho-Tswana word for „Nguni“ (Van Warmelo 1930), but the use of the term is more complex. In some cases, the term is associated with a northerly direction (Makhura 2007), and in others it signifies „Sotho-ised“ Nguni. Most importantly, „the Koni“ were not a coherent group (Delius & Schoeman 2008: 145). The Pedi attacked the Koni living in the Badfontein area in about 1740 AD and from that time the Badfontein Koni came under Pedi hegemony (ibid: 147).

Between 1820 and 1840, following the death of Thulare (AD 1790-1820), one of his

sons, Makopole, moved to the Lydenburg area and established a captaincy over the Koni there. Afterwards, they became known as the Koni of Makopole (Hunt 1931; Bergh 1998). Although the Koni had good relations with the Pedi after the *mfecane*, they maintained separate group identities (Hunt 1931).

The Koni in both areas are associated with Badfontein walling, characterised by terrace walls, circular settlements with outward-facing cattle kraals and cattle tracks (e.g. Marker & Evers 1976). These lanes lead into a central enclosure that was probably used for milking and slaughter. From here, an exit on the opposite end leads out to cattle byres attached to the central enclosure: uphill to the right and downhill to the left. This settlement organization most probably represents the left-hand, right-hand division prominent in Nguni society today. The visual emphasis on the centre-side axis emphasizes those related by blood versus those related by marriage (Kuper 1982).

In addition to Koni, various Ndebele groups lived in the district that also made stonewalling. Generally, people called „Ndebele“ have retained the Nguni language. As a further generality, Southern Ndebele claim Musi as a legendary figure, while Northern Ndebele claim Langa (Huffman 2004; Van Warmelo 1930, 1944). All came from KwaZulu-Natal (Fourie 1921).

Southern Ndebele settled in the Pretoria area in about the 17<sup>th</sup> century. According to oral tradition, in about 1630 AD, Ndzundza, one of Musi sons, fled to the east and settled near the tributaries of the Steelpoort River. They finally settled at KwaMaza under Bongwe (Schoeman 1997).

The organisation of Southern Ndebele settlements emphasized a front-back axis first seen at Moor Park (Davies 1974): beehive huts stood on low hut platforms in a residential zone behind the cattle kraal. At KwaMaza the central courtyard and cattle kraals were constructed to look the same and included two lobes, one for cattle and the other for calves (Schoeman 1997).

In contrast, Northern Ndebele settlements followed the Badfontein model, emphasizing the centre-side axis. Loubser (1994) recorded a large Northern Ndebele settlement at the base of Bambo Hill, in Polokwane, dating to the early 19<sup>th</sup> century. A Southern Ndebele settlement stood in the saddle (Huffman 2004; fig 15). In this case, the hill settlement probably predated the large settlement below.

## **5. Located sites, their description and suggested mitigation**

Some twenty sites were documented. These range from LIA (Late Iron Age) stone wall ruins, a historic building, historic or early 20<sup>th</sup> century stock enclosures and the ruins of farm workers dwellings. Some of the sites have archaeological significance while others are of historic value.

### **5.1. Social consultation**

Local residents were consulted during the surveying of the Project area. Informants consisted of Mr. Martin Mulder who currently resides on portion 60 of the property and Mr Marko van Wyk who owns portion 64.

#### **5.2.1. Site STR 01.**

**Location:** See Appendix B and C.

**Description:**

An old railway building. Much of the original structure is still in place but there have been some additions later on. The owner of the property Mr Marko van Wyk indicated that this building is similar to one on the Coromandel farm also next to the railway and was apparently erected in the early 1950's. A map from the archives of the Dept. of Roads and Transport dated to 2 December 1974 does not indicate the building but it is believed that the building did exist by that time. Documentation from Transnet may prove this but was not available at the time of the writing of this report.

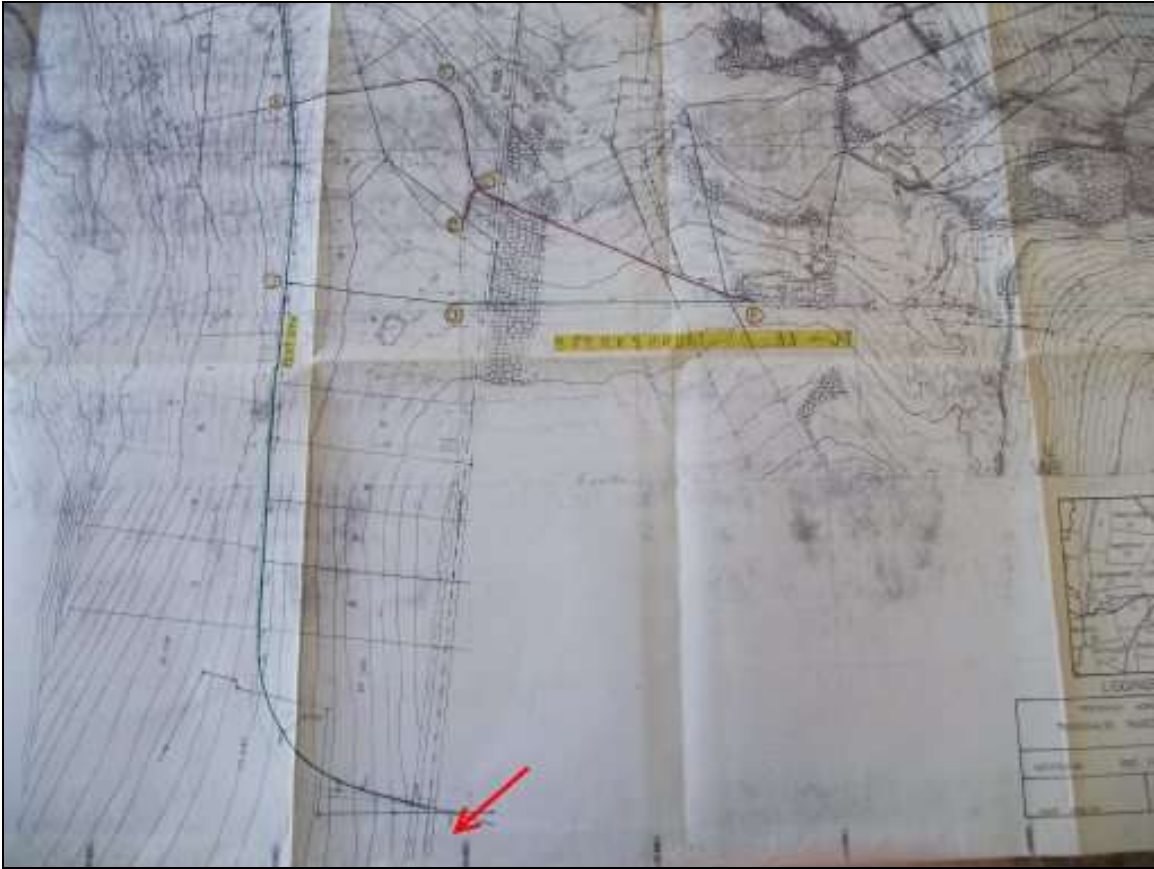
**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

It is recommended that this structure be incorporated into the planned development rather than demolishing it as the building has architectural character. If this is not possible, it is recommended that a permit be applied for in terms of section 34 of the National Heritage Resources Act (25 of 1999) before the building is destroyed. This should be accompanied by detailed comments or assessment and recommendations by an historical architect as

the building may have significant meaning in the railway history of the area.



**Fig. 5.1.** A map dated 2 December 1974 from the Department of Roads and Transport Archives. The red arrow (own addition) indicates where the building is located. The building is not indicated on this map.

### **5.2.2. Site STR 02.**

**Location:** See Appendix B and C.

**Description:**

The ruin of which was probably a small dwelling. Very poor condition.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

None recommended.

### **5.2.3. Site STR 03.**

**Location:** See Appendix B and C.

**Description:**

LIA stone walled enclosure. (Photo: fig. 5, App. D). Poor condition and probably robbed for the later construction of a square enclosure at site STR 5.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

Although this enclosure is in a very bad state of preservation compared to other similar enclosures on adjacent properties, this structure has some archaeological importance and is protected by heritage legislation. It is recommended that a permit be applied for before the enclosure is destroyed. This is in accordance with section 35 of the NHRA (25 of 1999). A detailed mapping of the enclosures to be carried out by a qualified archaeologist should accompany such a permit application.

### **5.2.4. Site STR 04.**

**Location:** See Appendix B and C.

**Description:**

LIA stone walled enclosure. Poor condition and probably robbed for the later construction of a square enclosure at site STR 5.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

Although this enclosure is in a very poor state of preservation compared to other similar enclosures on adjacent properties, this structure has some archaeological importance and is protected by heritage legislation. It is recommended that a permit be applied for before the enclosure is destroyed. This is in accordance with section 35 of the NHRA (25 of 1999). A detailed mapping of the enclosures to be carried out by a qualified archaeologist should accompany such a permit application.

### **5.2.5. Site STR 05.**

**Location:** See Appendix B and C.

**Description:**

Historic stone walled enclosure. (See photos fig. 6-9 App. D). The structure consists of dry packed stone walls which are joined at right angles, forming a rough rectangular structure. The walls are approximately 40cm wide and have an average height of some 50-60cm. The stones used for this feature were probably taken from the LIA enclosures close-by. The structure has some inner walls but it is hard to see detail because of dense grass growth. It is possible that it was used as a stock pen/ kraal by early or mid 20<sup>th</sup> century farmers.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

There is no visible archaeological deposit and therefore very difficult to establish its age. The structure has some historical value though it is not considered to be of high significance. No mitigation recommended.

### **5.2.6. Site STR 06.**

**Location:** See Appendix B and C.

**Description:**

Historic stone walled enclosure. The structure consists of dry packed stone walls which are joined at right angles, forming a rough rectangular structure. The walls are approximately 40cm wide and have an average height of some 20-30cm. The walls orientated north-south are approximately 15 metres long and those orientated east-west 9 metres. There is a small square enclosure in the North eastern corner which measures 4x6 metres. A large opening or possibly entrance is visible on the northern side. The stones used for this feature were also probably taken from the LIA enclosures close-by. It is possible that it was used as a stock pen/ kraal by early or mid 20<sup>th</sup> century farmers.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

There is no visible archaeological deposit and therefore very difficult to establish its age. The structure has some historical value though it is not considered to be of high significance. No mitigation recommended.

#### **5.2.7. Site STR 07.**

**Location:** See Appendix B and C.

**Description:**

Small section of a stone wall. It is in very poor condition and hard to determine its use.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

None recommended.

#### **5.2.8. Site STR 08.**

**Location:** See Appendix B and C.

**Description:**

A tiny scatter of undecorated pottery sherds on the soil surface.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

None recommended.

#### **5.2.9. Site STR 09.**

**Location:** See Appendix B and C.

**Description:**

The foundations of a ruin which probably served as late 20<sup>th</sup> century farm workers quarters.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.



#### **5.2.10. Site STR 10.**

**Location:** See Appendix B and C.

**Description:**

The foundations of a ruin which probably served as late 20<sup>th</sup> century farm workers quarters.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.

#### **5.2.11. Site STR 11.**

**Location:** See Appendix B and C.

**Description:**

The foundations of a ruin which probably served as late 20<sup>th</sup> century farm workers quarters.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.

#### **5.2.12. Site STR 12.**

**Location:** See Appendix B and C.

**Description:**

The foundations of a ruin which probably served as late 20<sup>th</sup> century farm workers quarters.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.

### **5.2.13. Site STR 13.**

**Location:** See Appendix B and C.

**Description:**

The foundations of a ruin which probably served as late 20<sup>th</sup> century farm workers quarters.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.

### **5.2.14. Site STR 14.**

**Location:** See Appendix B and C.

**Description:**

LIA stone walled enclosure. The walls are in poor condition and probably robbed for the later construction of square/ rectangular enclosures at sites STR 15 and STR 16.

**Impact of the proposed development/ activity:**

The development will probably not impact on the structure as it is located south of the proposed development area.

**Mitigation:**

The site is located just south of the development area. Although this enclosure is in a poor state of preservation compared to similar enclosures on adjacent properties, this structure has some archaeological importance and is protected by heritage legislation. It is recommended that a permit be applied for before the enclosure is destroyed. This is in accordance with section 35 of the NHRA (25 of 1999). A detailed mapping of the enclosures to be carried out by a qualified archaeologist should accompany such a permit application.

### **5.2.15. Site STR 15.**

**Location:** See Appendix B and C.

**Description:**

A small square stone-walled structure measuring 6m x15m. Possibly a stock pen linked to site STR 16.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

None recommended.

### **5.2.16. Site STR 16.**

**Location:** See Appendix B and C.

**Description:**

A rectangular stone-walled structure which probably served as a house for farm workers. An upper and lower grinding stone was found among the wall ruins. The structure possibly dates from the mid to late 20<sup>th</sup> century.

**Impact of the proposed development/ activity:**

The development will probably impact on the ruin.

**Mitigation:**

The structure is not regarded as being of historic significance. Although some surface material in the form of a lower and upper grinder were present, it is associated with recent use (mid 20<sup>th</sup> century) because of the context of the ruins. The structure has some historical value though it is not considered to be of high significance. Apart from recommending the collection of the upper and lower grinders for addition to the Lydenburg Museum collection before development activity commences, no further mitigation is recommended.

### **5.2.17. Site STR 17.**

**Location:** See Appendix B and C.

**Description:**

A small section of a stone wall. Probably related to the site STR 16. It is in very poor condition and hard to determine its use.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

None recommended.

### **5.2.18. Site STR 18.**

**Location:** See Appendix B and C.

**Description:**

A long section of a dray packed stone wall orientated in a east-west direction. The wall is approximately 40cm wide and just as high. It is approximately 60 metres long until it joins another wall at a right angle forming the western corner (see fig. 26, 27 App. D). It is most probably the remains of a cattle kraal as it is located very near the farm homestead.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

There is no visible archaeological deposit and therefore very difficult to establish its age. The structure has some historical value though it is not considered to be of high significance. No mitigation recommended.

### **5.2.19. Site STR 19.**

**Location:** See Appendix B and C.

**Description:**

A short section of a dray packed stone wall orientated roughly in a north-south direction. The wall is approximately 40cm wide and the height thereof varies from ground level to approximately 45cm high in places. There is a small square enclosure forming a feature in the wall, its purpose is unknown. It is most probably linked to or a continuation of the walls of site STR 18 which are located a few metres further south-east.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

There is no visible archaeological deposit and therefore very difficult to establish its age. The structure has some historical value though it is not considered to be of high significance. No mitigation recommended.

### **5.2.20. Site STR 20.**

**Location:** See Appendix B and C.

**Description:**

A short section of a dray packed stone wall orientated roughly in a north-south direction. The wall is approximately 40cm wide and mostly at ground level. It is most probably linked to or a continuation of the walls of sites STR 18 and 19 which are located a few metres further south.

**Impact of the proposed development/ activity:**

The development will probably impact on the site.

**Mitigation:**

There is no visible archaeological deposit and therefore very difficult to establish its age. The structure has some historical value though it is not considered to be of high significance. No mitigation recommended.

**TABLE 5.1. General Significance of located sites.**

Site No.	Description	Type of significance	Degree of significance	Sphere of significance
STR 01	Old railway building	Historic, architecture	Medium	Local Historic buildings and architecture
STR 02	Ruin	Historic	Low	Local community
STR 03	LIA stone walled enclosure	Archaeological	High	LIA archaeology and history
STR 04	LIA stone walled enclosure	Archaeological	High	LIA archaeology and history
STR 05	Ruin	Historic	Low	Local community
STR 06	Ruin	Historic	Low	Local community
STR 07	Ruin	Historic	Low	Local community
STR 08	Tiny pottery scatter	Archaeological	Low	LIA and Historic archaeology and history
STR 09	Ruin	Historic	Low	Local community
STR 10	Ruin	Historic	Low	Local community
STR 11	Ruin	Historic	Low	Local community
STR 12	Ruin	Historic	Low	Local community
STR 13	Ruin	Historic	Low	Local community
STR 14	Ruin	Historic	Low	Local community
STR 15	Ruin	Historic	Low	Local community
STR 16	Ruin	Historic	Low	Local community
STR 17	Ruin	Historic	Low	Local community
STR 18	Ruin	Historic	Low	Local community
STR 19	Ruin	Historic	Low	Local community
STR 20	Ruin	Historic	Low	Local community

**TABLE 5.2. Significance allocation of located sites**

Site no.	Unique nature	Integrity of archaeological deposit	Wider context	Relative location	Depth of deposit	Quality of archaeological/ historic material	Quantity of site features	Preservation condition of site
STR 1	Historic building	N/A	Old railway building	Sterkspruit 33JT	N/A	Archaeological: Low Historic: High	1	Good
STR 2	None	Poor	Farm workers dwellings	Sterkspruit 33JT	None	Archaeological: Low Historic: Low	1	Poor
STR 3	LIA ruins	Poor	LIA archaeology of Lydenburg	Sterkspruit 33JT	Not known	Archaeological: Low Historic: Medium	1	Poor
STR 4	LIA ruins	Poor	LIA archaeology of Lydenburg	Sterkspruit 33JT	Not known	Archaeological: Low Historic: Medium	1	Poor
STR 5	Historic ruins	Poor	20 <sup>th</sup> Cent. Cattle kraal	Sterkspruit 33JT	Not known	Archaeological: Medium Historic: Medium	1	Good
STR 6	Historic ruins	Poor	Dwellings and cattle kraal	Sterkspruit 33JT	Not known	Archaeological: Medium Historic: Medium	1	Good
STR 7	Historic ruins	Poor	Not known	Sterkspruit 33JT	Not known	Archaeological: Low Historic: Low	1	Poor
STR 8	None	Poor	LIA or historic pottery	Sterkspruit 33JT	Surface	Archaeological: Low Historic: Low	2	Poor
STR 9	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 10	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 11	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 12	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 13	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 14	LIA ruins	Poor	LIA archaeology of Lydenburg	Sterkspruit 33JT	Not known	Archaeological: Low Historic: Medium	1	Poor
STR 15	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 16	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Medium Historic: Medium	1	Fair
STR 17	Ruin	N/A	Farm workers dwellings	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor
STR 18	Ruin	N/A	Cattle kraal	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Fair
STR 19	Ruin	N/A	Cattle kraal	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Fair
STR 20	Ruin	N/A	Cattle kraal	Sterkspruit 33JT	N/A	Archaeological: Low Historic: Low	1	Poor

It must be noted that the bulk of archaeological remains are normally located beneath the soil surface. It is therefore possible that some significant cultural material or remains were not located during this survey and will only be revealed when the soil is disturbed. Should excavation or large scale earth moving activities reveal any human skeletal remains, broken pieces of ceramic pottery, large quantities of sub-surface charcoal or any material that can be associated with previous occupation, a qualified archaeologist should be notified immediately. This will also temporarily halt such activities until an archaeologist have assessed the situation. It must also be noted that if such a situation occurs it may have further financial implications for the developers the developers.

## **6. Findings and recommendations**

Mitigation measures were allocated to each site as discussed in section 5: **Located sites and their description.** It is recommended that the building associated with the railway be assessed by an architectural historian in order to establish its significance before a decision is made to demolish this structure. It is probably a better idea to incorporate this unique building into the proposed development rather than destroy it.

The LIA ruins are mostly in poor condition due to former removal of the stones which formed the walls of these enclosures. Fortunately there are many such enclosures on adjacent properties which are in pristine condition. Heritage legislation protects these structures however and it is recommended that a permit application in terms of section 35 of the NHRA (25 of 1999) accompanied with detailed mapping of the ruins be made before they can be demolished.



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## Appendix A

## **Terminology**

“**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 other decoration or any other means.

“**Archaeological**” means –

- Material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artifacts, human and hominid remains and artificial features or structures;
- Rock Art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation;
- Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artifacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation; and
- Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found;

“**Conservation**”, in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance;

“**Cultural significance**” means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance;

**“Development”** means any physical intervention, excavation, or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –

- construction, alteration, demolition, removal or change of use of a place or a structure at a place;
- carrying out any works on or over or under a place;
- subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
- constructing or putting up for display signs or hoardings;
- any change to the natural or existing condition or topography of land; and
- any removal or destruction of trees, or removal of vegetation or topsoil;

**“Expropriate”** means the process as determined by the terms of and according to procedures described in the Expropriation Act, 1975 (Act No. 63 of 1975);

**“Foreign cultural property”**, in relation to a reciprocating state, means any object that is specifically designated by that state as being of importance for archaeology, history, literature, art or science;

**“Grave”** means a place of internment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;

**“Heritage resource”** means any place or object of cultural significance;

**“Heritage register”** means a list of heritage resources in a province;

**“Heritage resources authority”** means the South African Heritage Resources Agency, established in terms of section 11, or, insofar as this Act (25 of 1999) is applicable in or in respect of a province, a provincial heritage resources authority (PHRA);

**“Heritage site”** means a place declared to be a national heritage site by SAHRA or a

place declared to be a provincial heritage site by a provincial heritage resources authority;

**“Improvement”** , in relation to heritage resources, includes the repair, restoration and rehabilitation of a place protected in terms of this Act (25 of 1999);

**“Land”** includes land covered by water and the air space above the land;

**“Living heritage”** means the intangible aspects of inherited culture, and may include –

- cultural tradition;
- oral history;
- performance;
- ritual;
- popular memory;
- skills and techniques;
- indigenous knowledge systems; and
- the holistic approach to nature, society and social relationships;

**“Management”** in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of the Act;

**“Object”** means any moveable property of cultural significance which may be protected in terms of any provisions of the Act, including –

- any archaeological artifact;
- palaeontological and rare geological specimens;
- meteorites;
- other objects referred to in section 3 of the Act;

**“Owner”** includes the owner’s authorized agent and any person with a real interest in the property and –

- in the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management or control of that place;
- in the case of tribal trust land, the recognized traditional authority;

**“Place”** includes –

- a site, area or region;
- a building or other structure which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure;
- a group of buildings or other structures which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures;
- an open space, including a public square, street or park; and
- in relation to the management of a place, includes the immediate surroundings of a place;

**“Site”** means any area of land, including land covered by water, and including any structures or objects thereon;

**“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;

## Appendix B



## 9. List of located sites

Sites located during the survey were numbered STR 01-STR 20. The initials “STR” represent “Sterkspruit ” and the following number is the number of the site. A spatial location with the aid of a GPS (Global Positioning System) was added to each site.

### 9.1. Site name: STR 01 (Site 1)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8034” E

Latitude, 25° 08.1529” S

Altitude: 1449 m

Photo: Fig. 1-3.

### 9.2. Site name: STR 02 (Site 2)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8123” E

Latitude, 25° 08.2204” S

Altitude: 1446 m

Photo: Fig. 4.

### 9.3. Site name: STR 03 (Site 3)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8186” E

Latitude, 25° 08.2693” S

Altitude: 1440 m

Photo: Fig. 5.

9.4. Site name: STR 04 (Site 4)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8288" E

Latitude, 25° 08.2898" S

Altitude: 1448 m

Photo: No photo.

9.5. Site name: STR 05 (Site 5)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8774" E

Latitude, 25° 08.3034" S

Altitude: 1453 m

Photo: Fig. 6-9.

9.6. Site name: STR 06 (Site 6)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9556" E

Latitude, 25° 08.4224" S

Altitude: 1459 m

Photo: Fig. 10, 11.

9.7. Site name: STR 07 (Site 7)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9034" E

Latitude, 25° 08.4648" S

Altitude: 1455 m

Photo: No photo.

9.8. Site name: STR 08 (Site 8)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8586" E

Latitude, 25° 08.1755" S

Altitude: 1453 m

Photo: Fig. 12.

9.9. Site name: STR 09 (Site 9)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9273" E

Latitude, 25° 07.4849" S

Altitude: 1437 m

Photo: Fig. 13.

9.10. Site name: STR 10 (Site 10)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9251" E

Latitude, 25° 07.5023" S

Altitude: 1433 m

Photo: Fig. 14, 15.

9.11. Site name: STR 11 (Site 11)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9254" E

Latitude, 25° 07.5079" S

Altitude: 1436 m

Photo: Fig. 16.

9.12. Site name: STR 12 (Site 12)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9032" E

Latitude, 25° 07.5229" S

Altitude: 1436 m

Photo: Fig. 17.

9.13. Site name: STR 13 (Site 13)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9050" E

Latitude, 25° 07.5377" S

Altitude: 1435 m

Photo: Fig. 18, 19.

9.14. Site name: STR 14 (Site 14)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.8913" E

Latitude, 25° 07.7831" S

Altitude: 1445 m

Photo: Fig. 20, 21.

9.15. Site name: STR 15 (Site 15)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 27.9421" E

Latitude, 25° 07.6851" S

Altitude: 1447 m

Photo: Fig. 22-24.

9.16. Site name: STR 16 (Site 16)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 28.0514" E

Latitude, 25° 07.6505" S

Altitude: 1450 m

Photo: No Photo.

9.17. Site name: STR 17 (Site 17)

Date of compilation: 16/04/2011

GPS reading: Longitude, 30° 28.0484" E

Latitude, 25° 07.6963" S

Altitude: 1440 m

Photo: Fig. 25.

9.18. Site name: STR 18 (Site 18)

Date of compilation: 14/05/2011

GPS reading: Longitude, 30° 27.9200" E

Latitude, 25° 06.9177" S

Altitude: 1418 m

Photo: Fig. 27, 27.

9.19. Site name: STR 19 (Site 19)

Date of compilation: 14/05/2011

GPS reading: Longitude, 30° 27.8929" E

Latitude, 25° 06.8599" S

Altitude: 1401 m

Photo: Fig. 28, 29.

9.20. Site name: STR 20 (Site 20)

Date of compilation: 14/05/2011

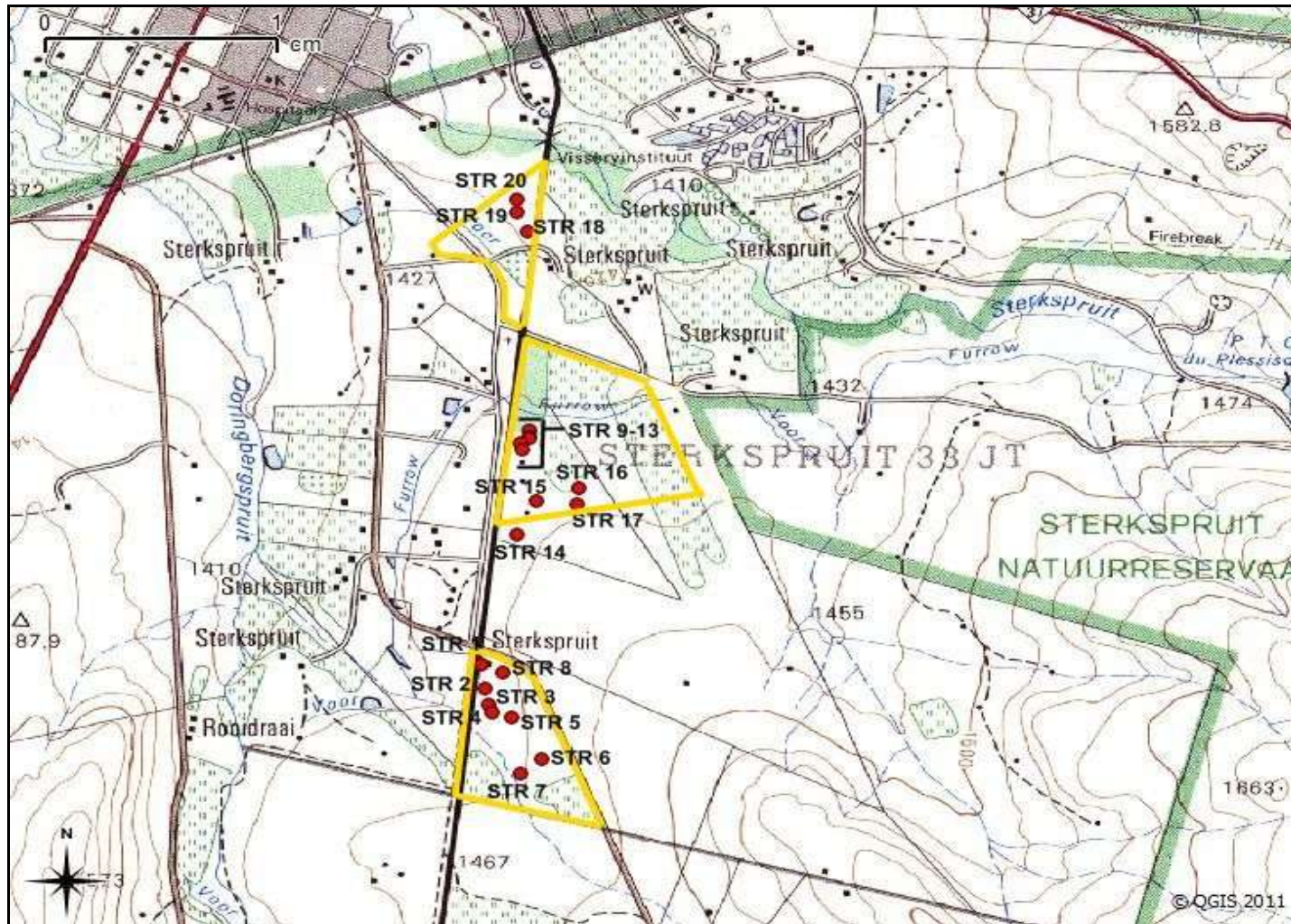
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Latitude, 25° 07.8242" S

Altitude: 1410 m

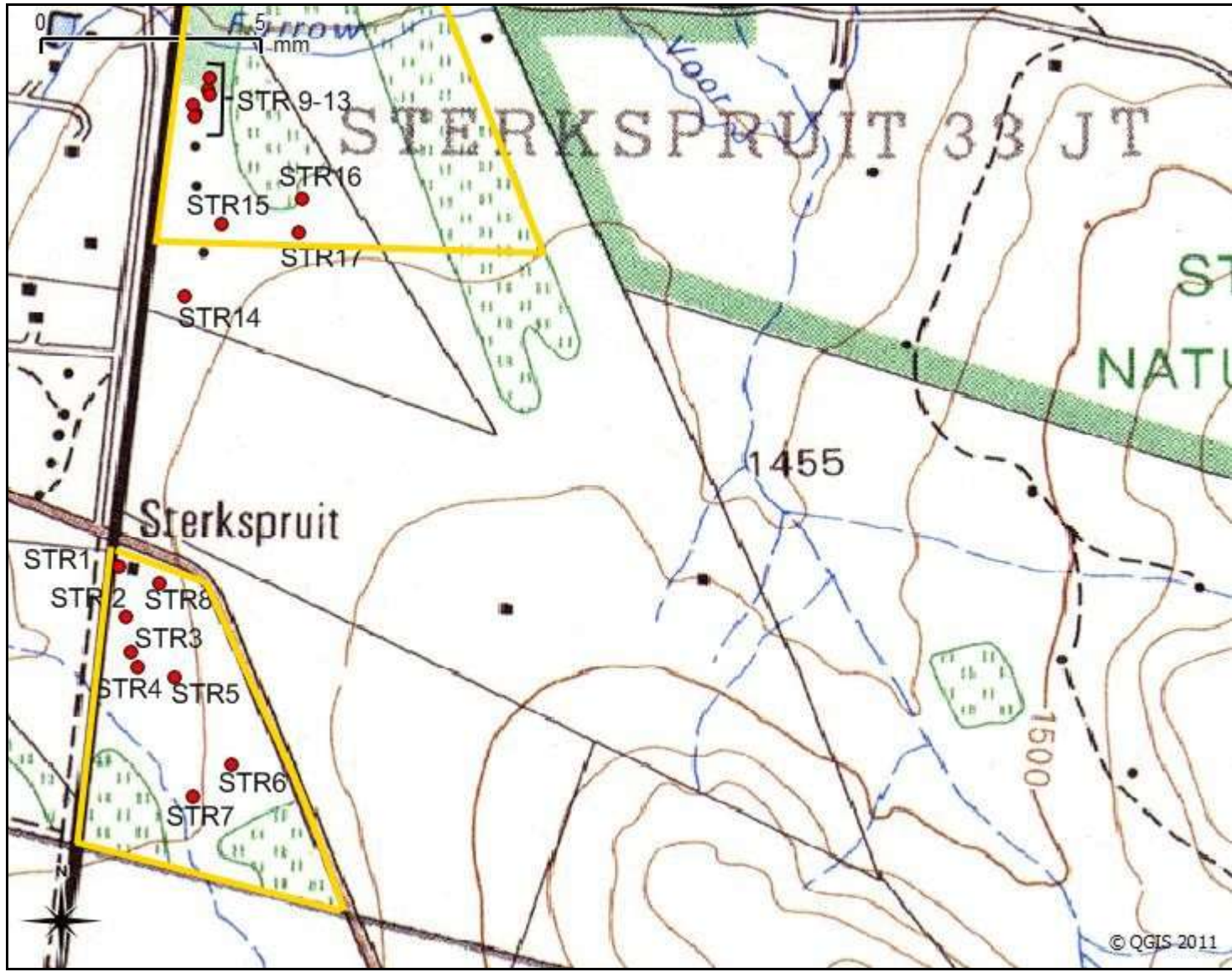
Photo: Fig. 30.

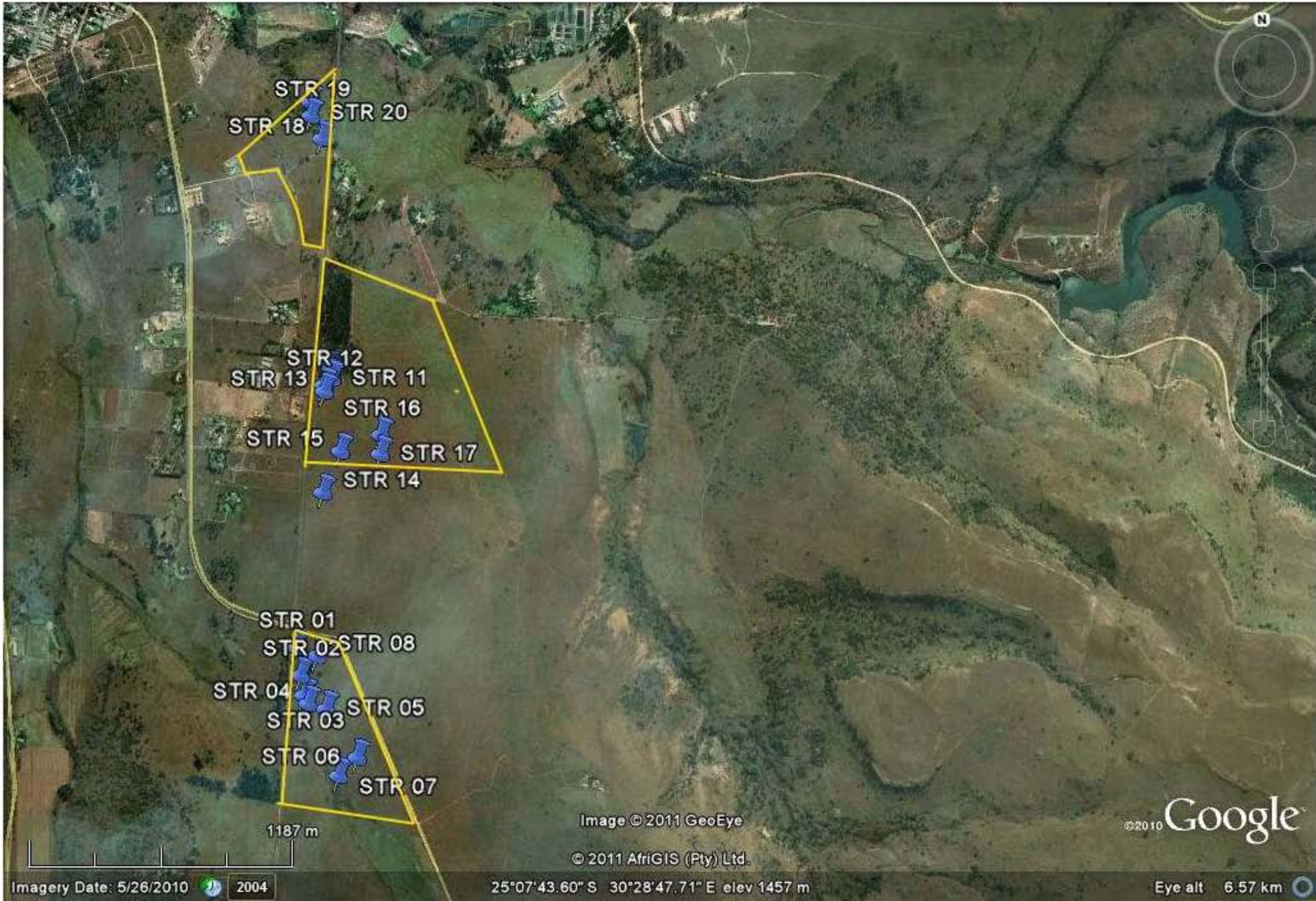
Appendix C – Maps



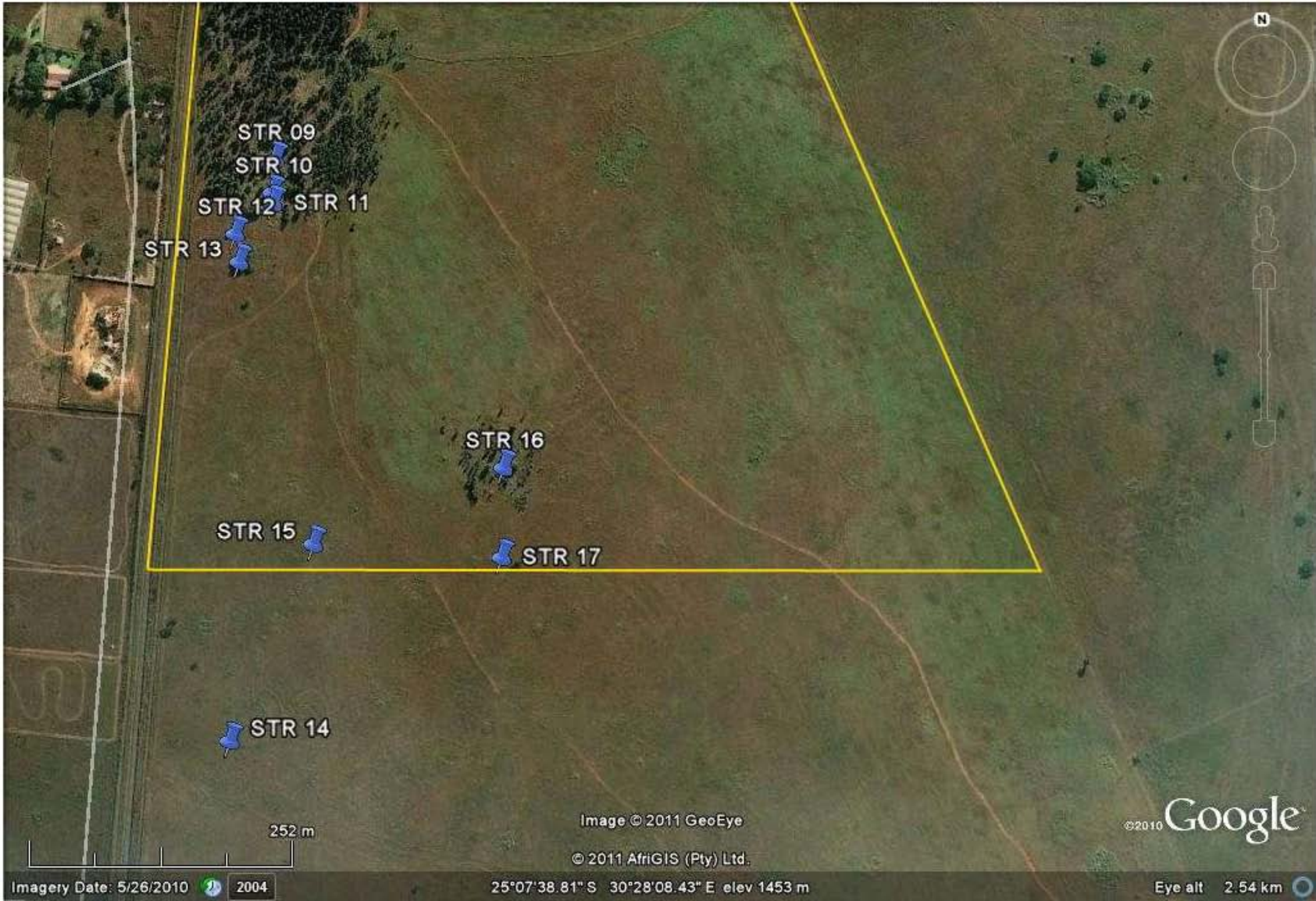
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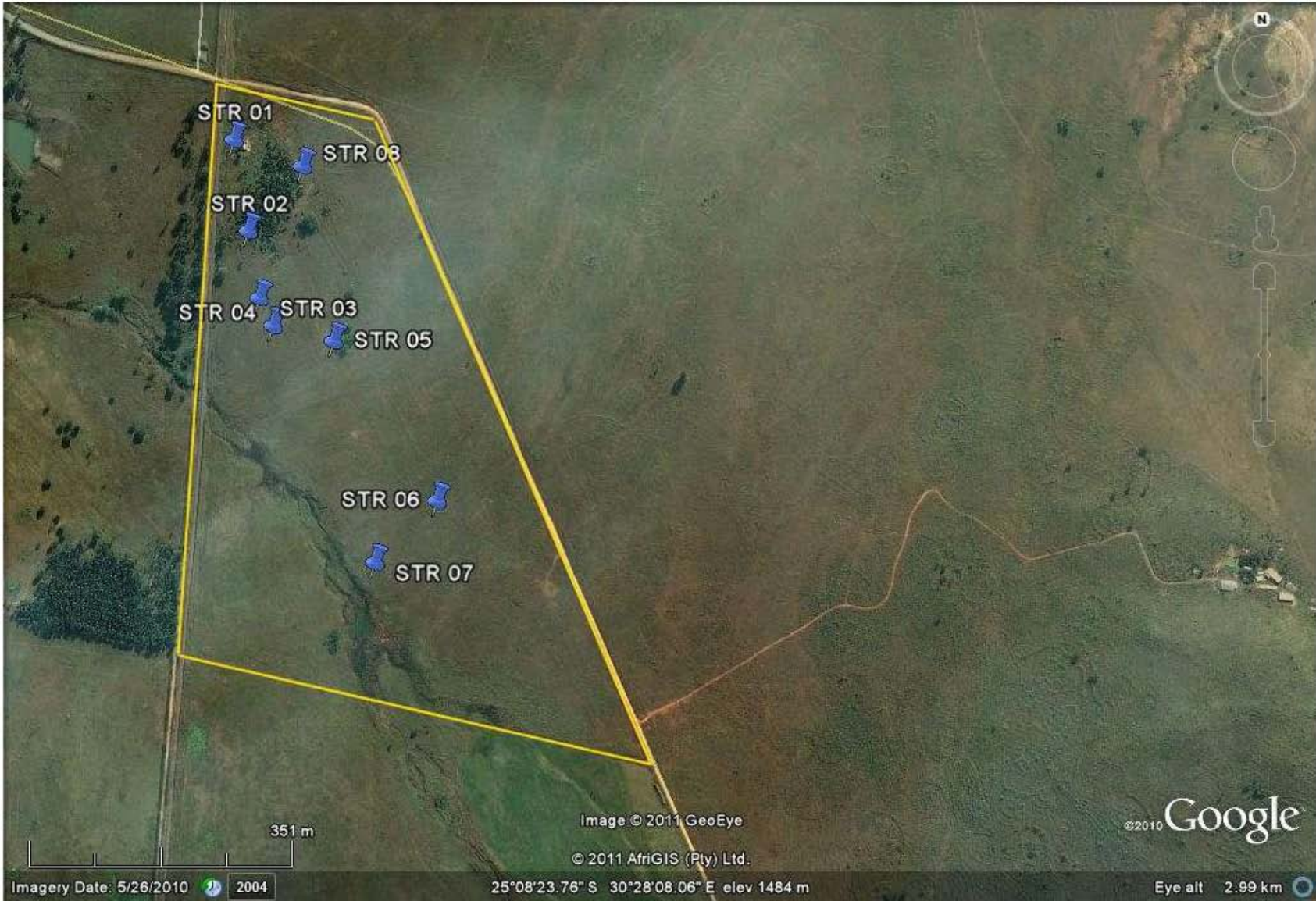
















## Appendix D





Fig. 1. Site STR 1. Old railway building.



Fig. 2. Site STR 2. Shows additions to original building on the western side.



Fig. 3. Site STR 1. Additions to the original building on the eastern side.



Fig. 4. Site STR 2. Remains of a stone-built dwelling.





Fig. 5. Site STR 3. Circular LIA stone walling indicated by yellow lines. Red arrow indicates stone walled structure at site STR 5 which was probably built with stones originating from site STR 3.



Fig. 6. Site STR 5. View to the south east. Square stone walled structure. Probably western.



Fig. 7. Site STR 5. View to the east from the southern perimeter wall.



Fig. 8. Site STR 5. View west from southern perimeter wall.





Fig. 9. Site STR 5. Yellow arrows indicate inner walls. Red arrow shows western perimeter wall.



Fig. 10. Site STR 6. Rectangular stone walled enclosure. View to the west.



Fig. 11. Site STR 6. Red arrows show where stone walling is visible. Also visible is the entrance on the northern side. Photo taken in southern direction.



Fig. 12. Site STR 8. Small surface scatter of pottery sherds.





Fig. 13. Site STR 9. Ruin of a farm workers dwelling.



Fig. 14. Site STR 10. Ruin of farm workers dwelling.



Fig. 15. Site STR 10. Scattered bricks among the ruins.



Fig. 16. Site STR 11. Ruin of farm workers dwelling. Photo taken in southern direction.





Fig. 17. Site STR 12. Another farms workers ruin.



Fig. 18. Site STR 13. Large stone-walled enclosure, probably for keeping of livestock associated with sites STR 9-12.



Fig. 19. Site STR 13. Photo taken towards the east.



Fig. 20. Site STR 14. LIA stone-walled enclosure. Yellow arrows indicate where they are visible.





Fig. 21. Site STR 14. LIA stone-walled enclosure. Yellow lines indicate where they are visible.  
Photo taken in south-western direction.



Fig. 22. Site STR 16. Upper grinding stone among stone wall ruins.



Fig. 23. Site STR 16. Square stone-walled ruin. Probably the remains of farm workers dwelling.



Fig. 24. Site STR 16. Lower grinding stone among the wall ruins.





Fig. 25. Site STR 17. Small section of stone walling visible, mostly robbed and used for other structures. Photo taken in southern direction.



Fig. 26. Site STR 18. Long stone wall orientated east-west, probably served as a stock enclosure.



Fig. 27. Site STR 18. The south western corner of the stock enclosure. This site is located close to the main farm residence.



Fig. 28. Site STR 19. Stone wall orientated roughly north-south. This wall probably forms part of the stock enclosure at the adjacent site STR 18.



Fig. 29. Site STR 19. A small square enclosure within the main perimeter wall of the stock enclosure.





Fig. 30. Site STR 20. A small section of stone walling further north from sites STR 18 and 19.

The wall is oriented north-south.