

**HERITAGE SURVEY OF THE NKAMBINI ACCESS
ROAD AND BRIDGES UPGRADE, WARD 13,
NDWEDWE LOCAL MUNICIPALITY, ILEMBE
DISTRICT MUNICIPALITY, KWAZULU-NATAL**

FOR ENVIROEDGE CC

DATE: 14 APRIL 2014

By Gavin Anderson

**Umlando: Archaeological Surveys and Heritage
Management**

PO Box 102532, Meerensee, 3901

Phone/fax: 035-7531785 Fax: 0865445631

Cell: 0836585362



TABLE OF CONTENT

INTRODUCTION	3
KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008	7
METHOD	9
Defining significance.....	10
RESULTS	12
DESKTOP STUDY	12
FIELD SURVEY.....	16
KAM01	16
CONCLUSION.....	20
REFERENCES	20

TABLE OF FIGURES

FIG. 1 GENERAL LOCATION OF THE STUDY AREA.....	4
FIG. 2: AERIAL OVERVIEW OF THE STUDY AREA	5
FIG. 3: TOPOGRAPHICAL MAP OF THE STUDY AREA	6
FIG. 4: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA	13
FIG. 5: STUDY AREA IN 1942	14
FIG. 6: STUDY AREA IN 1937	15
FIG. 7: GENERAL VIEWS OF THE ROAD	17
FIG. 8: LOCATION OF KAM01.....	18
FIG. 9: TWO GRAVES AT KAM01	19

INTRODUCTION

“The Ndwedwe Municipality has proposed the upgrade of Nkambini Access Road and Bridges, located in Ward 13 of the Ndwedwe Local Municipality, Ilembe District Municipality. The road and bridge upgrades aim to allow local residents to have improved, formalised access to their homes, schools, shops and the extended road network. The project is located in Ward 13 of the Ndwedwe Local Municipality....

The project involves the upgrade and construction of Nkambini Access Road and Bridges in Ward 13. The project includes the construction of a 2.6km, 6m wide gravel road complete with storm water drainage with culverts over existing drainage lines and bridge crossings over two separate watercourses which are tributaries of the main Msunduzi River. The proposed road upgrade will include both non-perennial watercourse crossings and perennial water course crossings of tributaries of the main Msunduze River. An access road currently exists and consists of an eroded dirt access road with a number of drainage line crossings. There are existing pipe crossings for some of the smaller drainage line crossings in the first portion of the road, and there are two existing bridge structures that would be replaced or upgraded” (Enviroedge BID, 2014).

The location of the road upgrade is shown in figures 1 – 3. Much of the road occurs on a slope in a valley and in the flood plain of the stream, with several river crossings.

Umlando was contracted to undertake the HIA for the road upgrade. The road upgrade will result in a 5m wide road. The current road is ~2m – 3m wide, and thus there will be areas of earth moving activity.

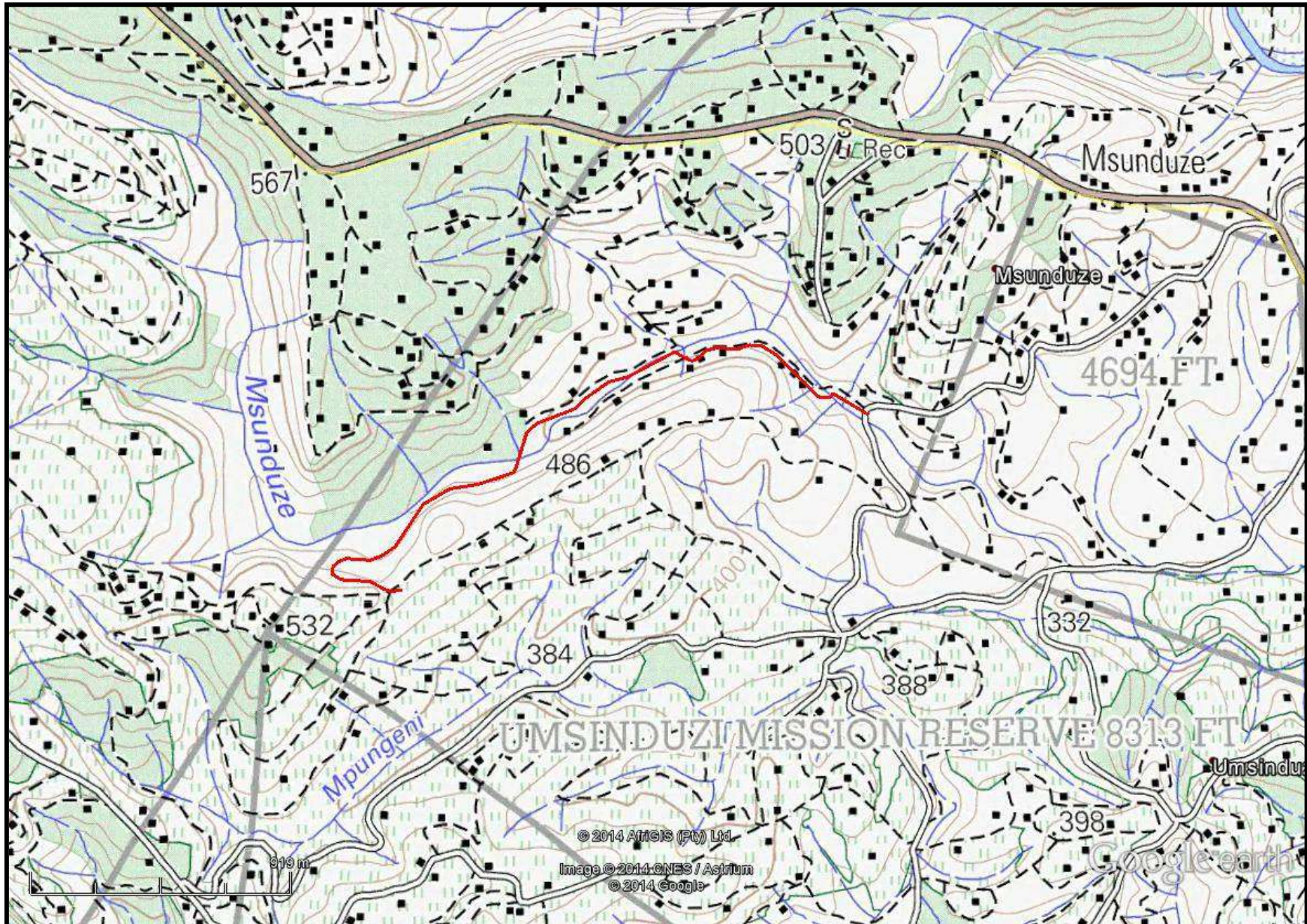
FIG. 1 GENERAL LOCATION OF THE STUDY AREA



FIG. 2: AERIAL OVERVIEW OF THE STUDY AREA



FIG. 3: TOPOGRAPHICAL MAP OF THE STUDY AREA



KWAZULU-NATAL HERITAGE ACT NO. 4 OF 2008

“General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or

- use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.” (KZN Heritage Act of 2008)

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This databases contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national and provincial monuments and battlefields in Southern Africa (<http://www.vuvuzela.com/googleearth/monuments.html>) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

1. State of preservation of:

- 1.1. Organic remains:
 - 1.1.1. Faunal
 - 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
 - 1.5.1. Ash Features
 - 1.5.2. Graves
 - 1.5.3. Middens
 - 1.5.4. Cattle byres
 - 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?
- 5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

- 7.1. Does the site have the potential to be used as an educational instrument?
- 7.2. Does the site have the potential to become a tourist attraction?
- 7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

- 8.1. Palaeontological sites
- 8.2. Historical buildings

- 8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites
- 8.4. Graves and/or community cemeteries
- 8.5. Living Heritage Sites
- 8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. The archaeological database indicates that there are archaeological sites in the general area (fig. 4). These sites include all types of Stone Age and Iron Age sites. No sites occur in the study area. No national monuments, battlefields, or historical cemeteries are known to occur in the study area, although they do occur outside of it.

The 1942 topographical map and 1937 aerial photographs indicate that there are no roads in the study area, nor are there any human settlements (fig.'s 5 and 6).

FIG. 4: LOCATION OF KNOWN HERITAGE SITES NEAR THE STUDY AREA

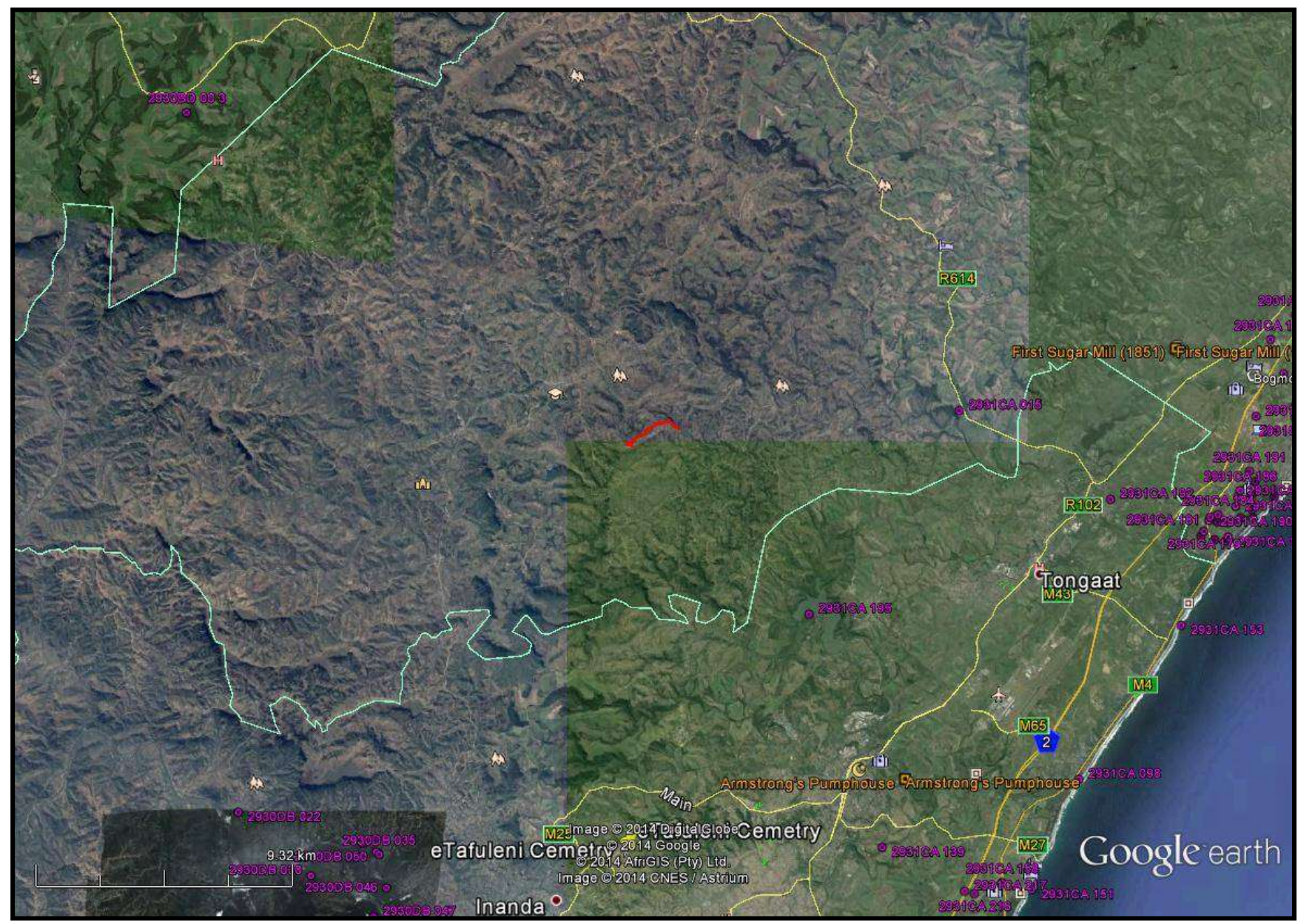


FIG. 5: STUDY AREA IN 1942

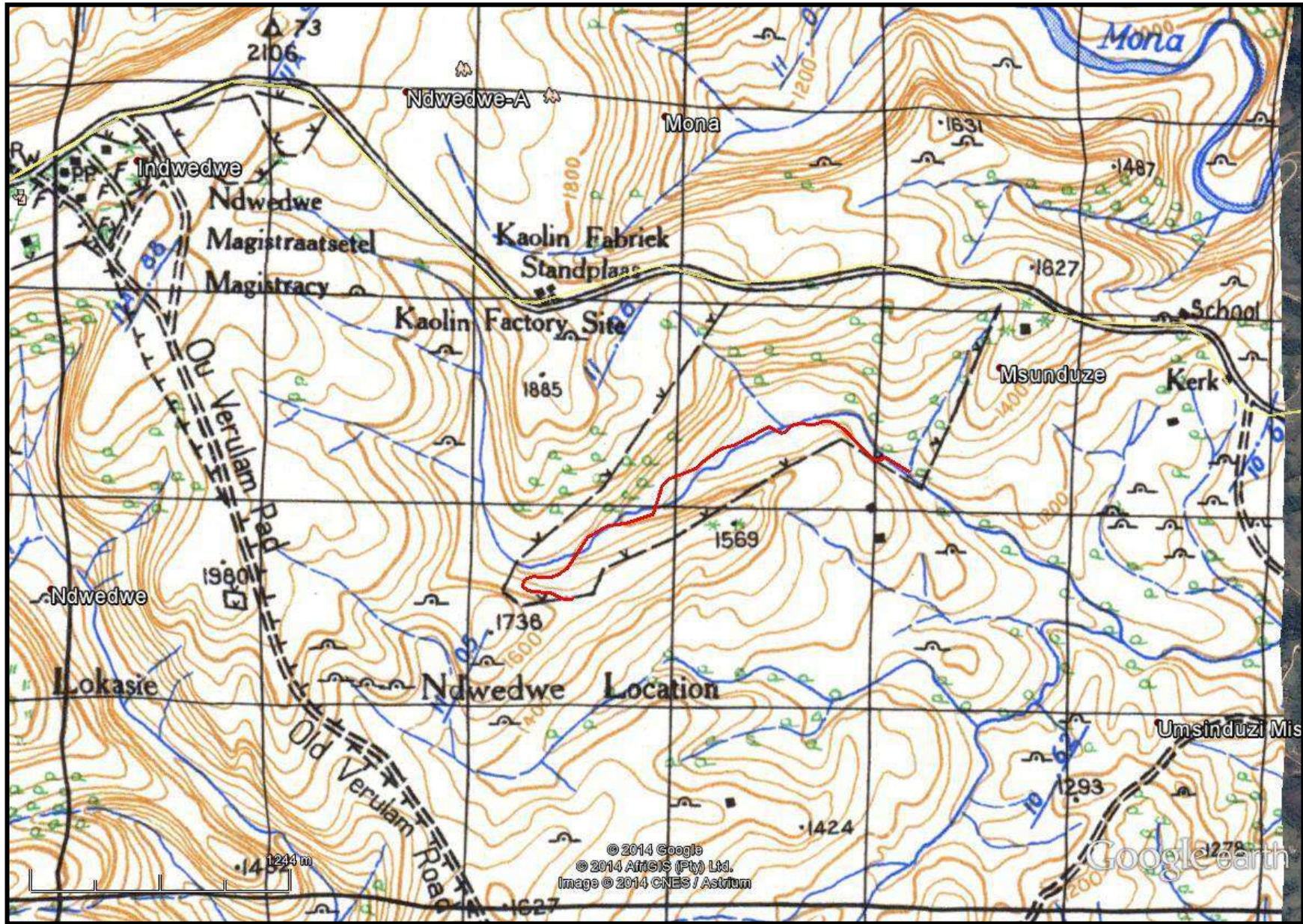
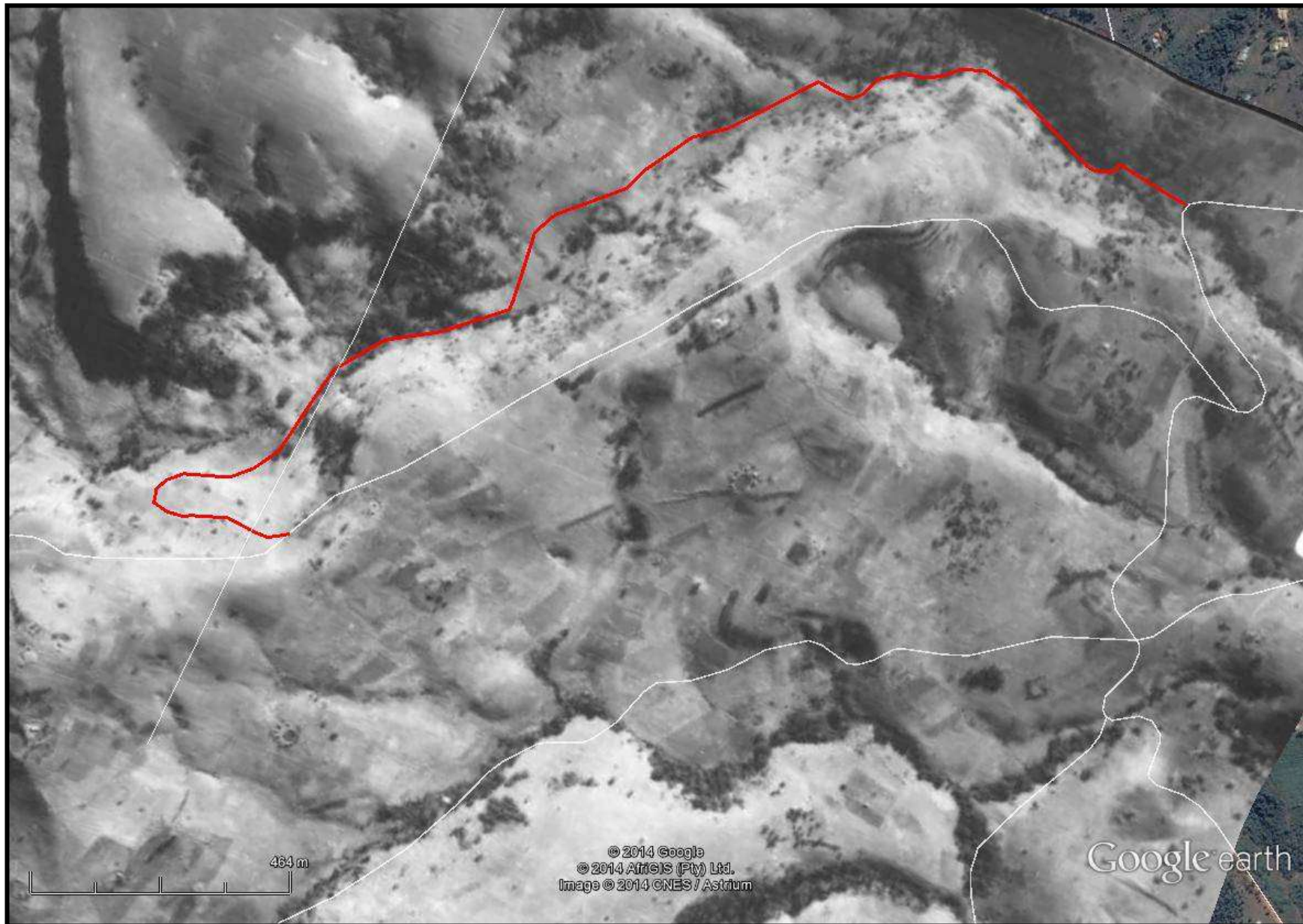


FIG. 6: STUDY AREA IN 1937



Any bridges along the existing road would probably postdate the 60 year mark, and thus not be protected by the KZNHA.

The affected area does not require a Palaeontological Impact Assessment, as it is coded blue on the SAHRIS map.

FIELD SURVEY

The vegetation was overgrown along the road; however, the road cutting gave sufficient views for potential artefacts (fig. 7). No artefacts were observed in these cuttings.

As noted in the desktop there were no human settlements in the study area in the 1930s and early 1940s. Any visible house remains would thus post date 1942. No houses were observed in the development footprint.

KAM01

Only one heritage site was noted along the route. KAM01 consists of two graves amongst banana trees (29°31'33.99"S 30°58'39.46"E). The graves are marked with tombstones, but no headstones (fig. 8). The graves occur ~3m from the existing road. The graves appear to be recent in age and belong to the existing settlement located a few meters uphill.

Significance: The graves are of high significance.

Mitigation: Under normal circumstances, a 20m buffer zone is required between a human grave and a development. However, the graves were probably placed here after the existing road was demarcated. Moreover, the space required for the road in this specific area is restricted due to the river to the northeast. A 20m buffer would thus be impractical in this specific area.

FIG. 7: GENERAL VIEWS OF THE ROAD



FIG. 8: LOCATION OF KAM01

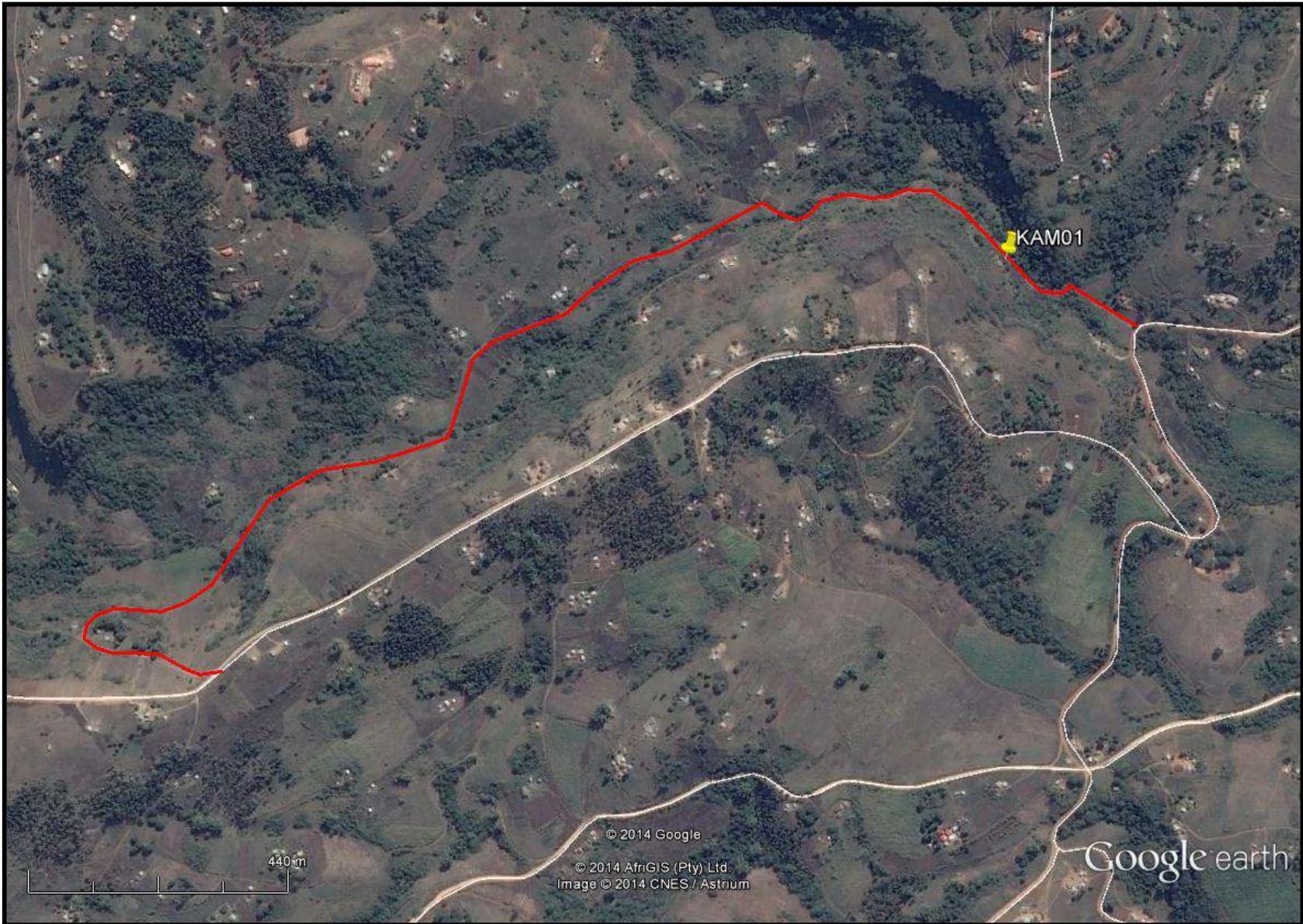


FIG. 9: TWO GRAVES AT KAM01



I suggest that the area around the graves are fenced off and clearly demarcated before construction phase. There should normally be a 5m buffer between a grave and the fencing, however in the situation it should be reduced to 3m. I suggest that the road upgrade in this area is moved to the river (northeast) side of the road and does not extend any closer to the existing grave. This would counter any post-internment movement that normally occurs in these types of graves. If the grave is disturbed, then a social impact assessment specifically related to the grave will be required and all construction activity will need to stop immediately.

Permission to demarcate the graves and upgrade the road near these graves will be required from the living descendents.

CONCLUSION

A heritage survey was undertaken for the Nkambini Access Road. The road is 2.6km long and will occur on an existing road.

No humans settlements were noted from the historical maps. These maps also indicated that the access road post-dates 1942, and probably post-date the 1960s. The field survey noted two human graves that would be affected by the road upgrade. I suggested that the area be clearly demarcated before construction begins and that road widening occurs on the opposite side of the road.

REFERENCES

Enviroedge. 2014. Background Information Document As Part Of The Basic Assessment Process For The Proposed Nkambini Access Road And Bridges, Ward 13, Ndwedwe Local Municipality, Ilembe District Municipality