

**HERITAGE SURVEY OF THE PROPOSED WASTE
WATER TREATMENT WORKS, NTABANKULU

FOR COASTAL ENVIRONMENTAL SERVICES**

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INTRODUCTION

Umlando was contracted by Coastal Environmental Services to undertake the heritage survey (excluding palaeontology) of the Tabankulu Waste Water Treatment Works (TWWTW) and related pipeline. The development is located around the town of Tabankulu, Eastern Cape (fig.'s 1 - 3).

The impacts will be:

- Construction of a waste water treatment facility
- Excavations for the pipeline

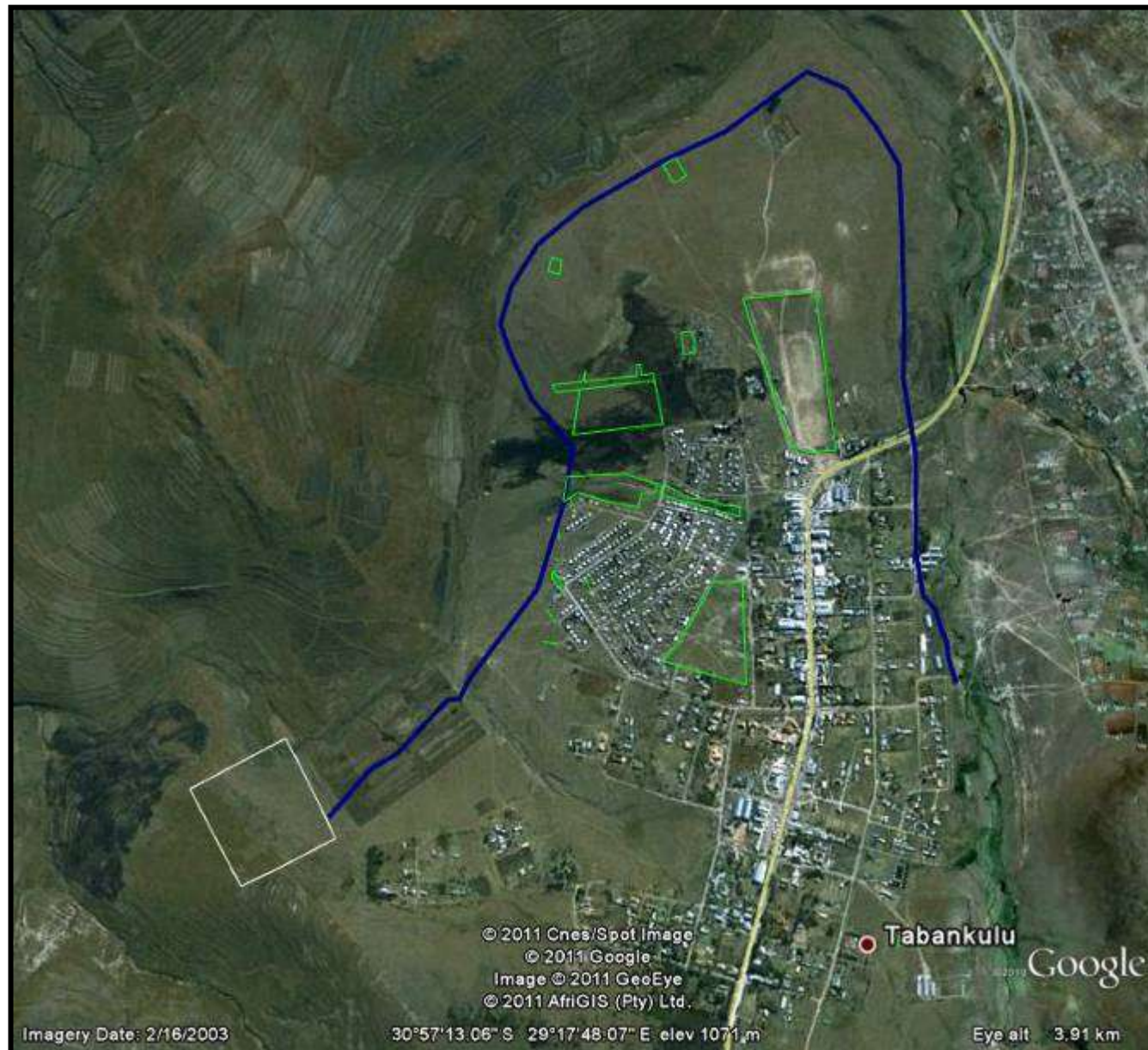
The TWWTW is located outside the main town of Tabankulu. Most of the area has been heavily ploughed for decades. Some of it has reverted to grasslands, while the rest is agricultural land, or just outside the road reserve. There are several erosion gullies and a wetland in the affected area. The main buildings will probably be situated at the base of the hill, even though the locality map indicates part of the hill will be affected.

One archaeological site was recorded as well as individual artefacts. In addition to this, a modern engraving was noted. All of the artefacts occur in the area where the Treatment Works will occur. No artefacts were observed along the pipeline. The artefacts and site are of low significance and no further mitigation is required.

FIG. 1 GENERAL LOCATION OF THE PROPOSED TWWTW

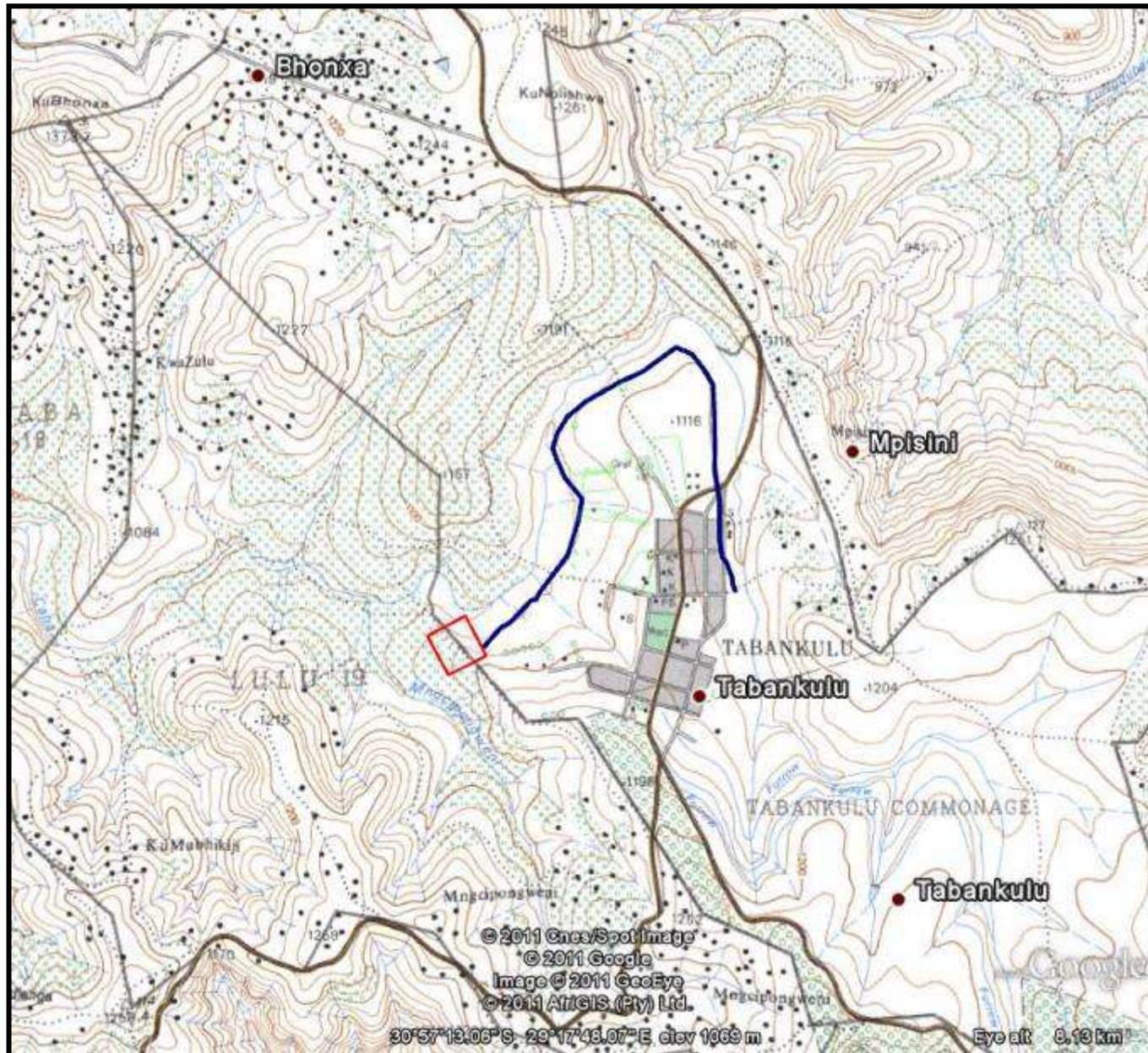


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED TWWTW¹



¹ Blue line = pipeline,; white square = treatment works

FIG. 3: TOPOGRAPHICAL MAP OF THE TWWTW AND PIPELINE



NATIONAL HERITAGE RESOURCES ACT OF 1999

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. These resources are defined as follows:

1. “For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
2. Without limiting the generality of subsection (1), the national estate may include—
 - 2.1. Places, buildings, structures and equipment of cultural significance;
 - 2.2. Places to which oral traditions are attached or which are associated with living heritage;
 - 2.3. Historical settlements and townscapes;
 - 2.4. Landscapes and natural features of cultural significance;
 - 2.5. Geological sites of scientific or cultural importance;
 - 2.6. Archaeological and palaeontological sites;
 - 2.7. Graves and burial grounds, including—
 - 2.7.1. Ancestral graves;
 - 2.7.2. Royal graves and graves of traditional leaders;
 - 2.7.3. Graves of victims of conflict;
 - 2.7.4. Graves of individuals designated by the Minister by notice in the Gazette;
 - 2.7.5. Historical graves and cemeteries; and
 - 2.7.6. Other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
3. Sites of significance relating to the history of slavery in South Africa;
 - 3.1. Movable objects, including—

4. Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - 4.1. Objects to which oral traditions are attached or which are associated with living heritage;
 - 4.2. Ethnographic art and objects;
 - 4.3. Military objects;
 - 4.4. objects of decorative or fine art;
 - 4.5. Objects of scientific or technological interest; and
 - 4.6. 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(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).
5. Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—
 - 5.1. Its importance in the community, or pattern of South Africa's history;
 - 5.2. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
 - 5.3. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
 - 5.4. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
 - 5.5. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
 - 5.6. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
 - 5.7. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
 - 5.8. Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and

5.9. sites of significance relating to the history of slavery in South Africa”

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

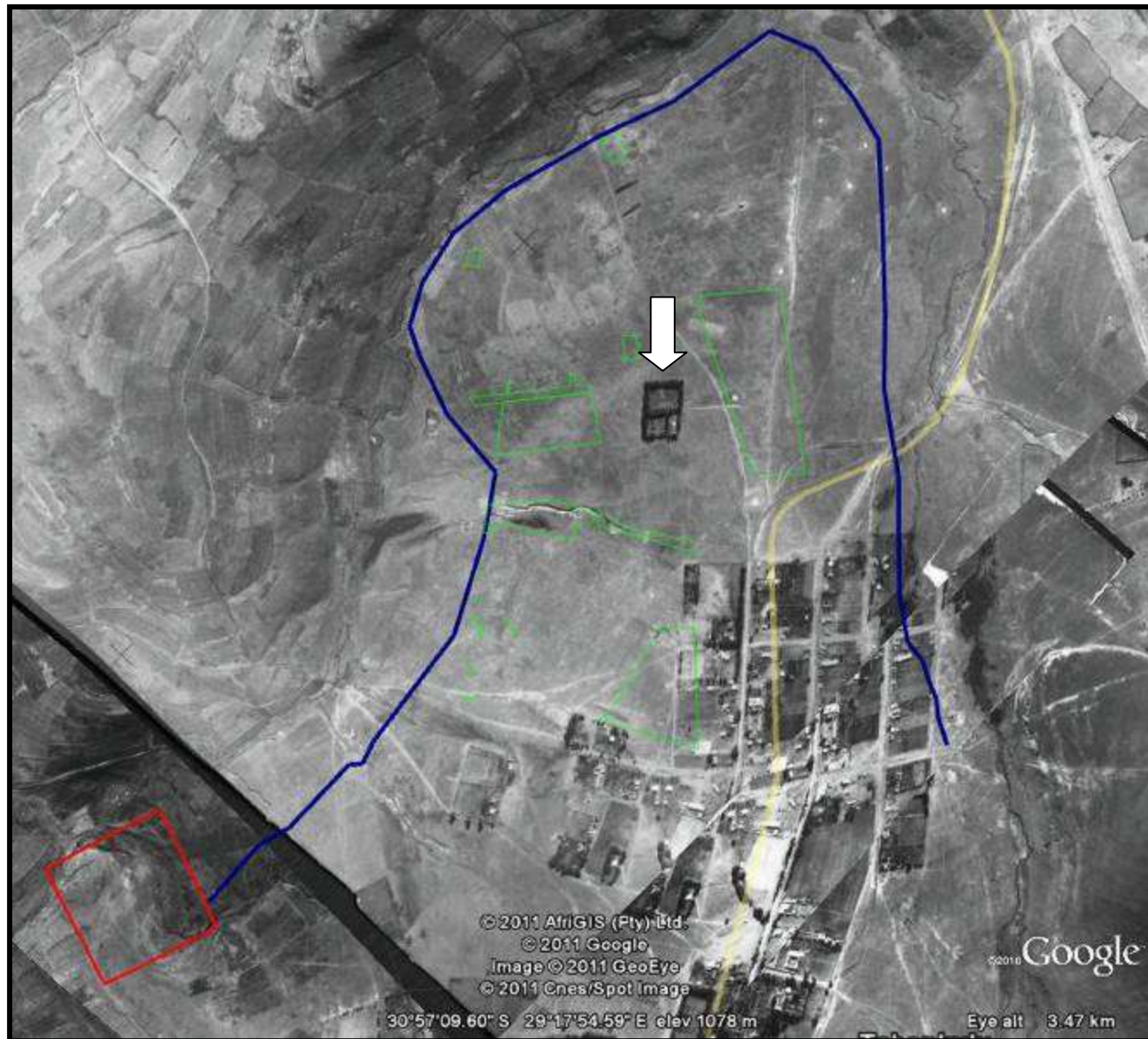
The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys.

Fig. 4 shows the study area in 1937. The map indicates that the study area has been extensively ploughed. There are no houses in the direct path of the pipeline or the treatment plant area. The cemetery is clearly visible, but some distance from the proposed development.

Fig. 5 shows the study area in 1963. The only difference is that the ploughed fields are not as much in use and have reverted to grassland. The land has then been converted to agricultural fields and/or gone fallow in 1982 (fig. 3) and 2002 (fig. 2)

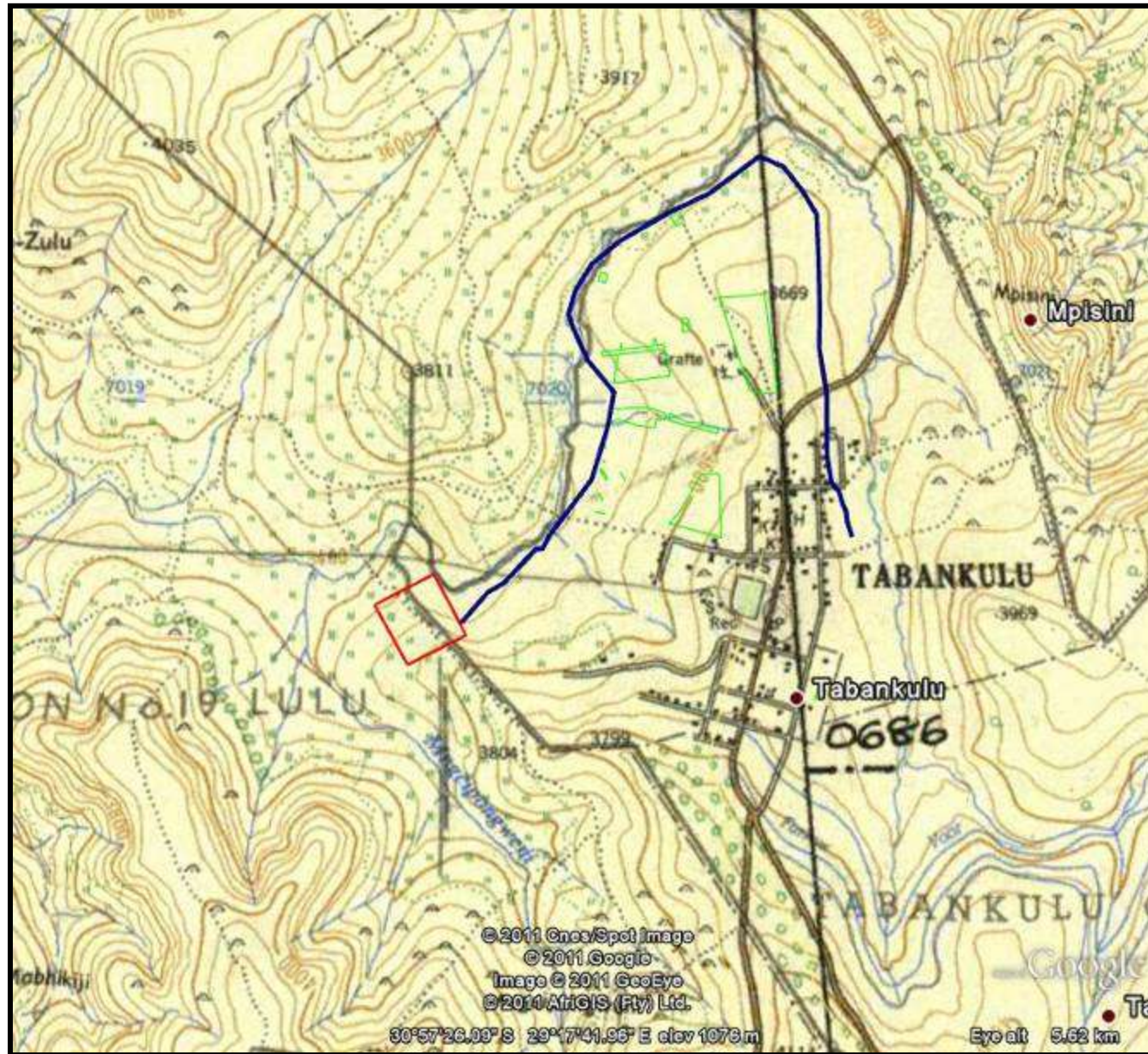
No archaeological sites have been previously recorded in this area.

FIG. 4: LOCATION OF TWWTW AND LINE IN 1937²



² Arrow = cemetery

FIG.5: LOCATION OF TWWTW AND LINE IN 1963³



³ 3029CD Mt Ayliff (1963)

FIELD SURVEY

The field survey was undertaken over a single day. The proposed pipeline was walked, as was the area for the treatment facility. The list of sites recorded during the survey are summarised in Table 1. Figure 6 shows the locations of the finds.

Name	Description	South	East	Requires Mitigation
TAB01	LSA scatter	S30 57 34.8	E29 17 16.2	No
Adze	Single stone tool	S30 57 44.4	E29 17 12.9	No
Pot	Single pot sherd	S30 57 35.3	E29 17 17.4	No
Engraving	Recent Engraving	S30 57 42.2	E29 17 14.2	No

TAB01

TAB01 is located near the edge of the planned treatment facility. The site consists of a small scatter of Middle/Late Stone Age tools (fig. 7) that have washed down the hill and erosion gully (fig. 8).

The tools are mostly flakes and show evidence of utilisation. The one MSA tool has been reworked in the LSA.

Significance: the site is of low significance as the tools are few in number and a secondary context.

Mitigation: No further mitigation is required.

FIG. 6: LOCATIONS OF RECORDED SITES

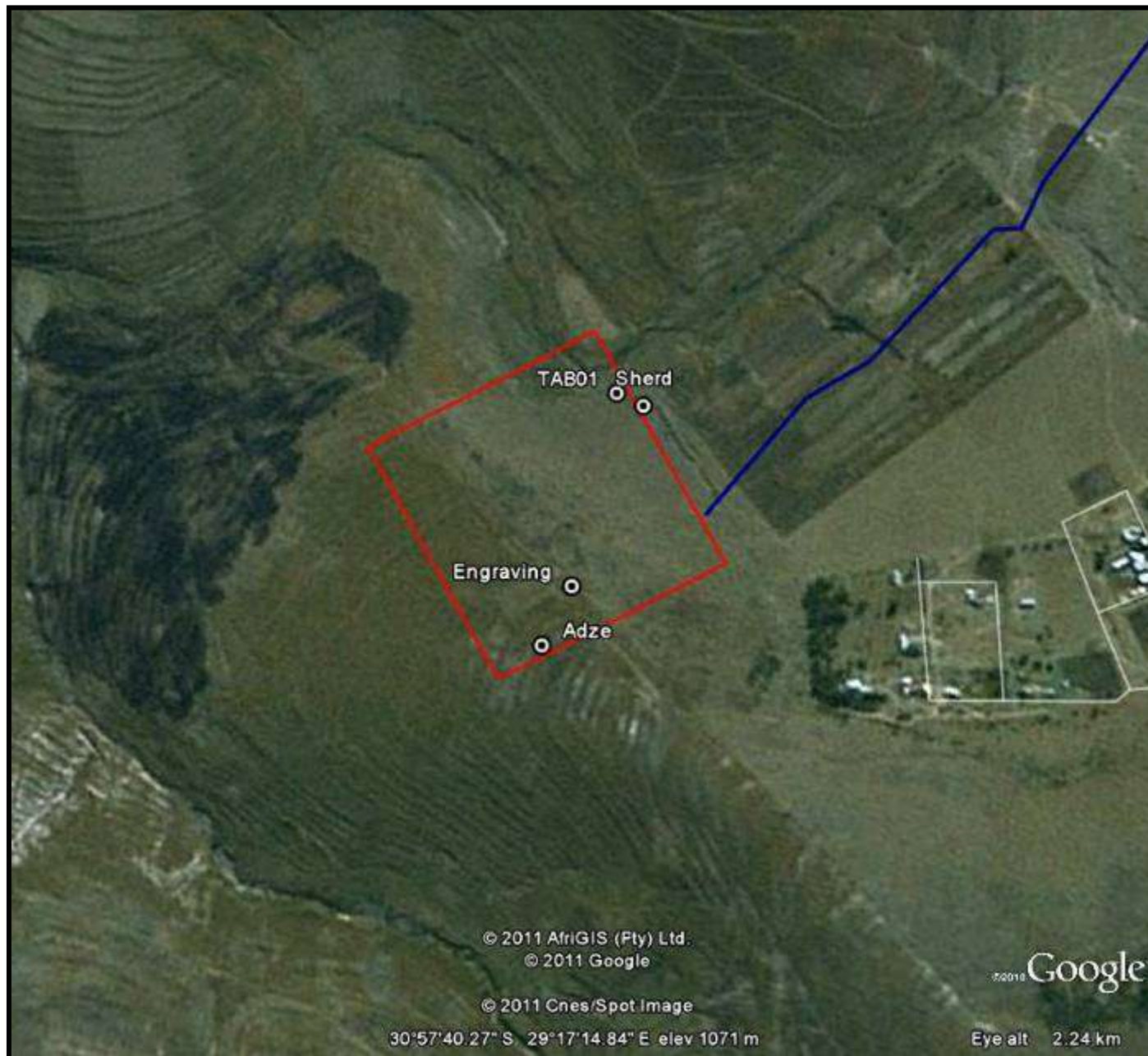
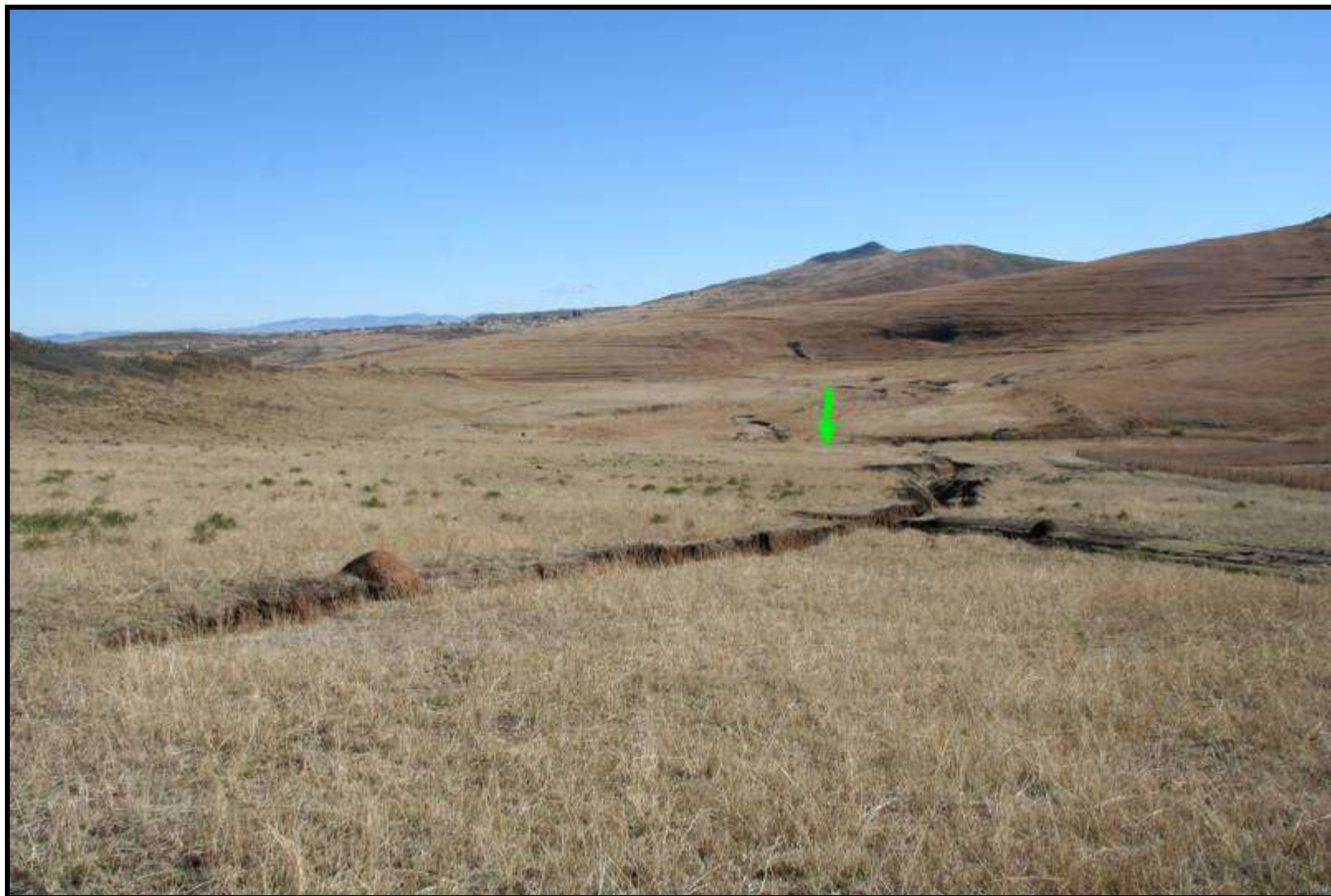


FIG. 7: STONE TOOLS AT TAB01



FIG.8: LOCATIONS OF ARTEFACTS ON THE HILL.



Pot

A single pottery sherd was observed in the erosion gully (fig. 9). It probably originates from further up the hill, and more sherds are likely to occur in the general area. It is not possible to date the sherd.

Significance: The artefact is of low significance.

Mitigation: No further mitigation is required.

FIG. 9: POTTERY SHERD



Adze

A single flake with Heavy Edge Damage was located on the top of the hill (fig. 10). The tool does have some step flaking and it could be a reworked as an adze. The LSA flake has also been reworked on a MSA tool.

Significance: The tool is of low significance as the tools are few in number and a secondary context.

Mitigation: No further mitigation is required.

FIG. 10: LATE STONE AGE ADZE



Engraving

A single modern engraving was observed on the top of the hill besides the fence. The engraving is that of a human face with two horizontal lines below.

Significance: The engraving is of low significance and appears to be recent.

Mitigation: No further mitigation is required.

FIG. 11: ENGRAVING



MANAGEMENT PLAN

The single archaeological site and the individual artefacts are of low significance. No further mitigation is required.

There is no cultural landscape that will be impacted, as this area has been extensively ploughed for at least 80 years.

The development will not have a visual impact on heritage sites, as no known significant heritage sites occur in the area. The biggest impact would be the treatment facility, and this will be against the base of the hill.

There are no known living heritage sites, or sites rated to a specific oral history. The public participation process would cover this.

The development will require a permit from SAHRA to impact on the site TAB01.

CONCLUSION

A heritage survey was undertaken for the Tabankulu Waste Water Treatment Works. The development will consist of buildings related to the treatment facility as well as the pipeline.

One archaeological site was recorded, while a single engraving and individual artefacts were also noted. The artefacts consist of mostly MSA flakes, of which some have been reused in the LSA. A single pottery sherd of indeterminate age was also observed. A single modern engraving was noted. These sites are of low significance and no further mitigation is required.

**APPENDIX A
SITE RECORD FOMS**

