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HERITAGE SURVEY OF THE PROPOSED MFINIZO 132kV LINE

FOR COASTAL ENVIRONMENTAL SERVICES

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INTRODUCTION

Umlando was contracted by Coastal Environmental Services to undertake the heritage survey of for the construction of a 132kV line from the proposed Taweni substation to the proposed Mfinizo substation near Lusikisiki, in the Eastern Cape. There were initially two separate lines and these were surveyed in 2010 (Anderson 2010, Anderson 2010). Subsequently, Eskom has combined the two lines and requested a combined report. The line has deviated in a few places, and these have not been surveyed.

The Mfinizo substation is located ~21km northeast of Lusikisiki, E. Cape (fig. 1 - 3). The line continues through mainly ploughed fields, and over river valleys, for ~22km up to the Taweni substation ~6km northeast of Lusikisiki.

- The impacts will be:
 - Construction of pylons
 - Construction of access roads
 - Construction of stockpile areas

The survey recorded 73 sites in the desktop study and 12 sites during the field survey. Most of the sites are ancestral graves. There are no sites along the transmission line that require mitigation; however, there are sensitive areas relating to human remains.



FIG. 1 GENERAL LOCATION OF THE PROPOSED MFINIZO-TAWENI LINE

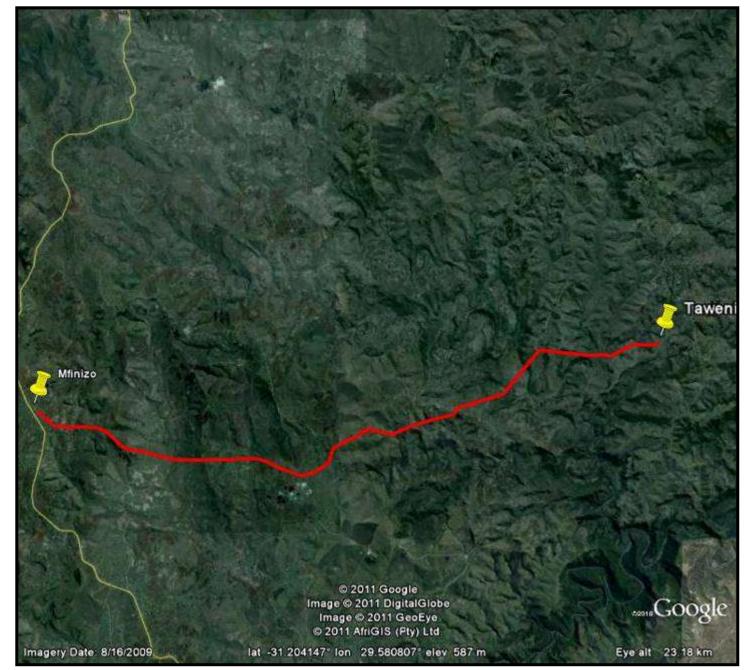


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED MFINIZO-TAWENI LINE

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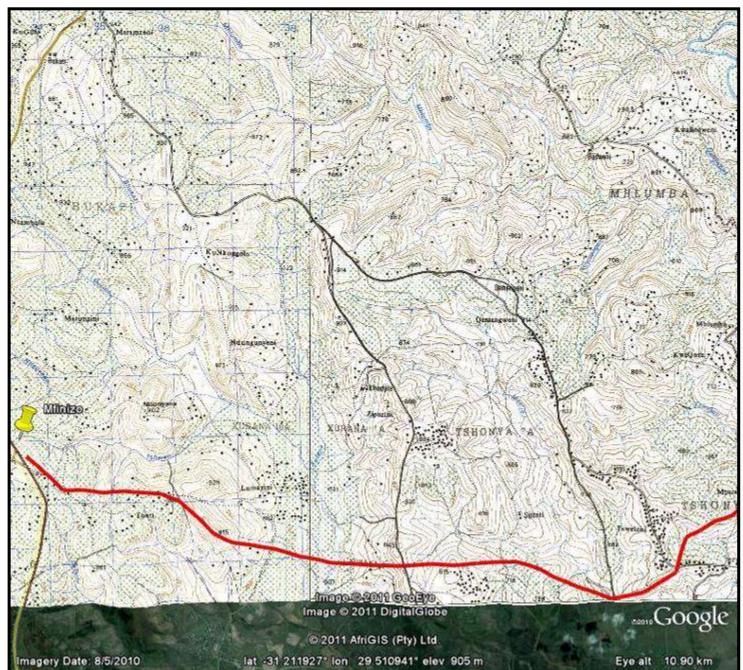


FIG. 3A: TOPOGRAPHICAL MAP OF THE WESTERN SECTION OF THE PROPOSED MFINIZO LINE

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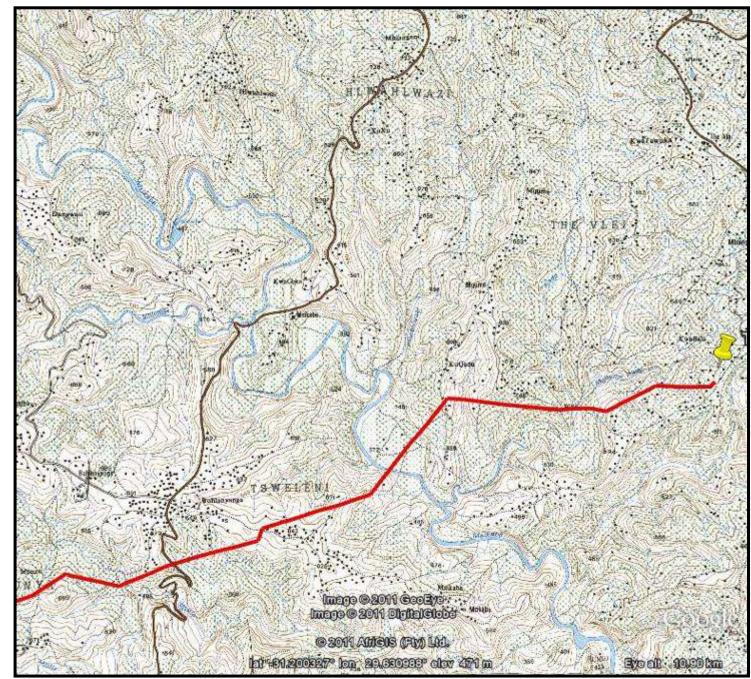


FIG. 3B: TOPOGRAPHICAL MAP OF THE SOUTHERN SECTION OF THE PROPOSED MFINIZO LINE

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NATIONAL HERITAGE RESOURCES ACT OF 1999

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

- "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.
- 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-

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- 3.2. Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - 3.2.1. Objects to which oral traditions are attached or which are associated with living heritage;
 - 3.2.2. Ethnographic art and objects;
 - 3.2.3. Military objects;
 - 3.2.4. objects of decorative or fine art;
 - 3.2.5. Objects of scientific or technological interest; and
 - 3.2.6. 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).
- 4. 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—
 - 4.1. Its importance in the community, or pattern of South Africa's history;
 - 4.2. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
 - 4.3. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
 - 4.4. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
 - 4.5. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
 - 4.6. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
 - 4.7. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
 - 4.8. 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

4.9. 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?

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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.

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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. No sites had been previously recorded in the study area. However, the 1937 aerial photographs indicated that 39 sites occur within 100m of the line (fig. 4a-b). The oldest 1:50 000 topographical maps only date to 1980. However, these maps indicate 34 settlements with potential graves within 100m of the line (fig. 5a-b).

A 100m radius should be placed around all sensitive areas along the line. This would highlight the potential for human remains during the construction phase.

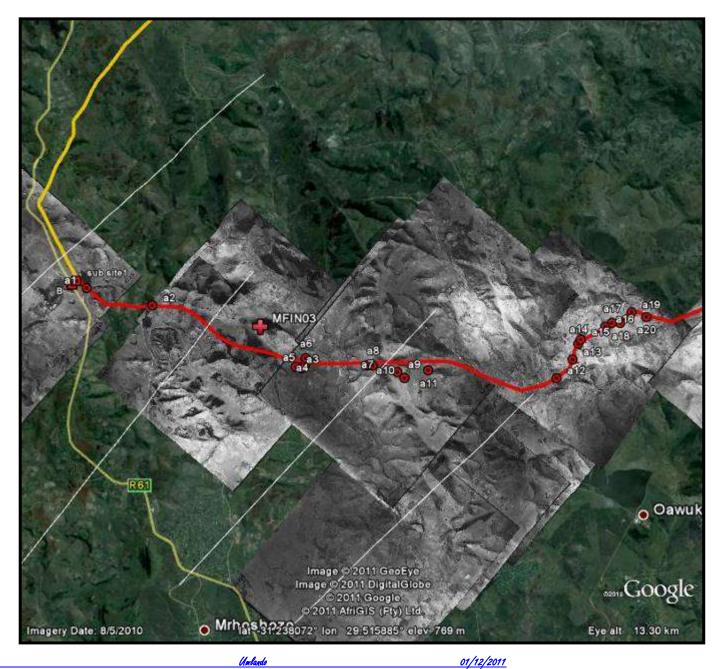
Table 1 summarises the information from the desktop survey. Since many graves from the periods of the maps would no longer be visible, they need to be viewed as being sensitive. Table 2 summarises the information from the survey.

One area is noted as having high sensitivity from the desktop survey (fig. 6). I used the 1937 and 2004 (Google Earth) aerial photographs, as well as the 1980 topographical maps, to study all line deviations, as these areas were not surveyed in the original survey.

The two maps indicate that there are 9 settlements within 100m of the new line route. Four to five of these sites occur within the servitude and may be affected during the construction phase. These sites are settlements that probably have human graves. The graves are probably unmarked and subsurface, as is the case with most of these early settlements. This area will need to be surveyed prior to construction to ensure that graves do not exist in the area.

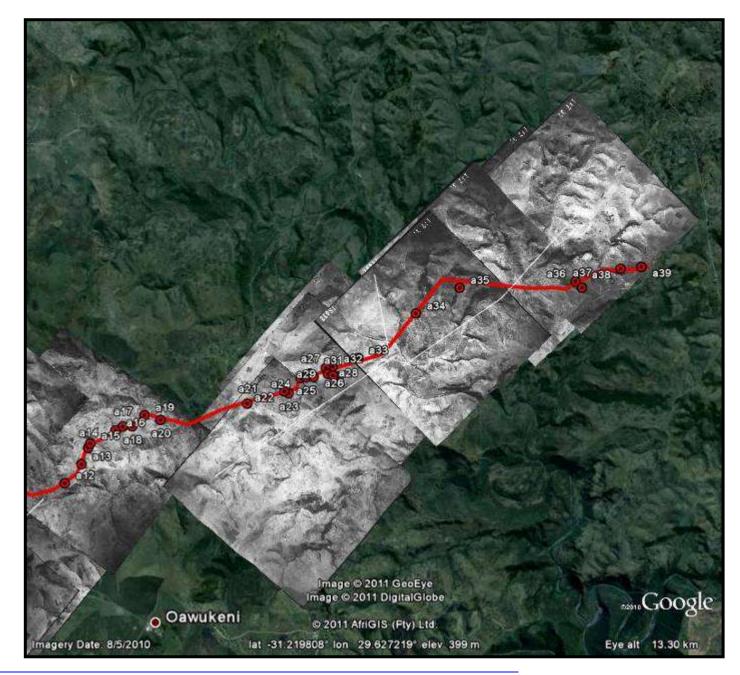
The area should be noted as having high sensitivity, with the possibility of human graves that may be exposed during construction activity. The PPP should also specifically request information regarding graves along this line. FIG. 4a: LOCATION OF SETTLEMENTS ALONG THE WESERN SIDE OF THE MFINIZO-TAWENI LINE IN 1937

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FIG. 4b: LOCATION OF SETTLEMENTS ALONG THE WESERN SIDE OF THE MFINIZO-TAWENI LINE IN 1937



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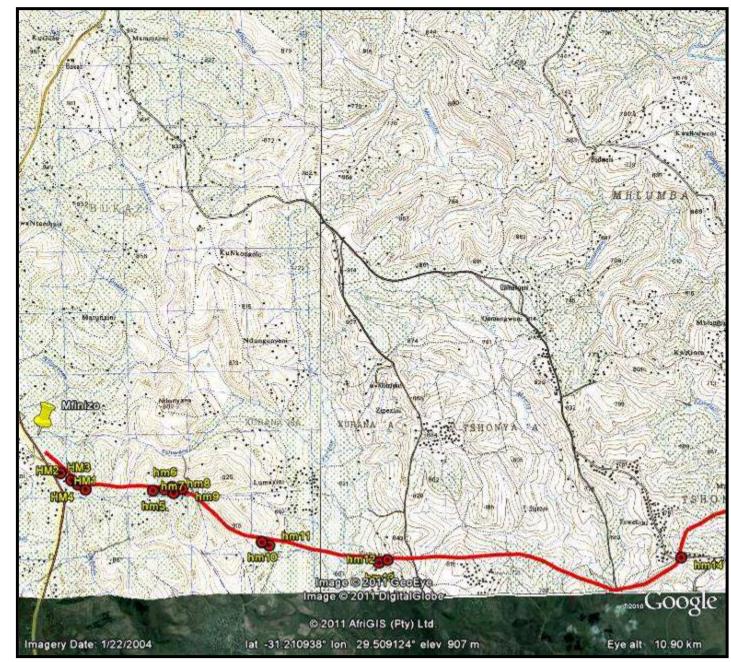


FIG. 5a: LOCATION OF SETTLEMENTS ALONG THE WESTERN SIDE OF THE MFINIZO-TAWENI LINE IN 1980

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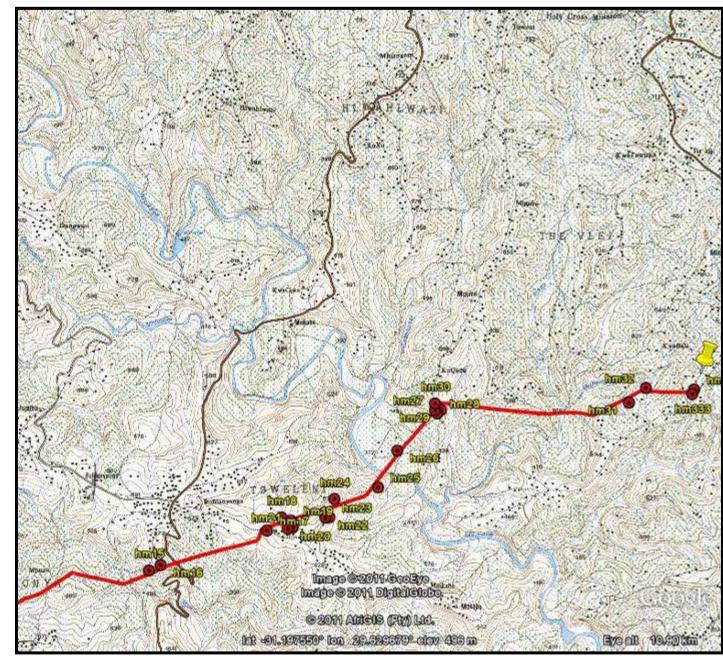


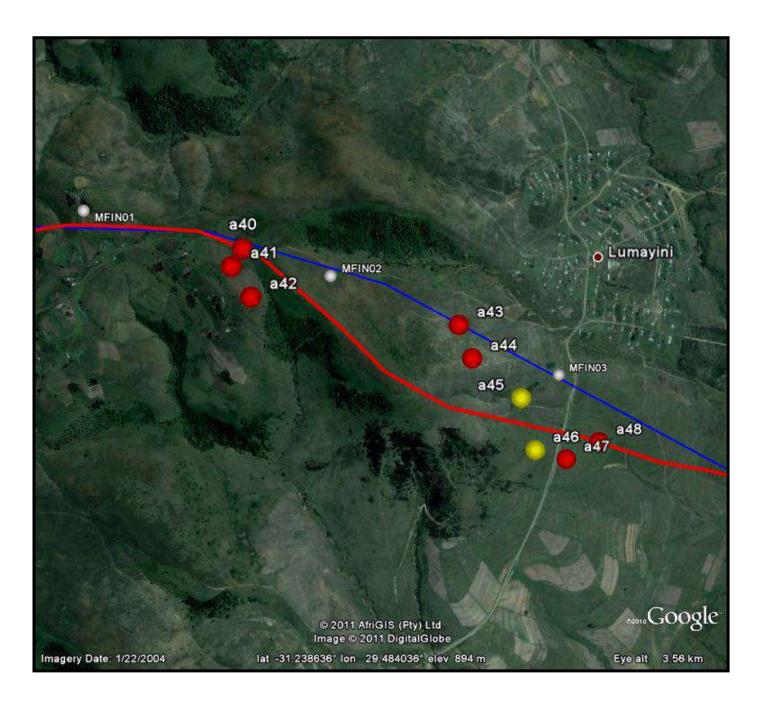
FIG. 5b: LOCATION OF SETTLEMENTS ALONG THE EASTERN SIDE OF THE MFINIZO-TAWENI LINE IN 1980

TABLE 1: RESULTS FROM THE DESKTOP STUDY

NAME	LATITUDE	LONGITUDE	NAME	LATITUDE	LONGITUDE
		1937 AERIAL	PHOTOGRE	PAHS	
a01	-31.2299545	29.4548803	a21	-31.2320987	29.5990124
a02	-31.2332285	29.4693693	a22	-31.2297496	29.6072227
a03	-31.2449107	29.5008428	a23	-31.2301105	29.6081689
a04	-31.2452202	29.5021722	a24	-31.2271844	29.6108053
a05	-31.2445317	29.5028749	a25	-31.2270986	29.6119799
a06	-31.2432461	29.5030367	a26	-31.2270376	29.6136923
a07	-31.2444858	29.5168702	a27	-31.2263809	29.612906
a08	-31.2445405	29.5181063	a28	-31.2264031	29.6168008
a09	-31.2457563	29.5235586	a29	-31.2253215	29.616357
a10	-31.2468864	29.5251812	a30	-31.2268408	29.6192403
a11	-31.2454886	29.5305298	a31	-31.2267247	29.617973
a12	-31.2469541	29.5593151	a32	-31.2250673	29.6178745
a13	-31.2434038	29.5629201	a33	-31.2234112	29.6235122
a14	-31.2403864	29.5642677	a34	-31.2149216	29.6363849
a15	-31.2395628	29.5647797	a35	-31.210073	29.6459948
a16	-31.2370796	29.5702817	a36	-31.2087757	29.6718501
a17	-31.2363826	29.5718415	a37	-31.2099775	29.6731876
a18	-31.2363955	29.5738157	a38	-31.2063711	29.6816413
a19	-31.2343064	29.5764421	a39	-31.2061177	29.6859144
a20	-31.2352054	29.5798959	a40	-31.234427	29.477551
a41	-31.235140	29.477048	a42	-31.236345	29.477917
a43	-31.237408	29.487782	a44	-31.238797	29.488395
a45	-31.240477	29.490926	a46	-31.242695	29.491662
a47	-31.243137	29.493299	a48	-31.242417	29.495004
		1980 1:50 000	TOPOGRAP	HICAL	
HM01	-31.231456	29.4555507	hm18	-31.2258273	29.6140347
HM02	-31.232481	29.4573914	hm19	-31.2262069	29.6157228
HM03	-31.2331008	29.4586306	hm20	-31.2273751	29.6151828
HM04	-31.2337889	29.4599448	hm21	-31.2271745	29.6160687
hm05	-31.2339746	29.4714882	hm22	-31.2257875	29.6218343
hm06	-31.2337565	29.4734392	hm23	-31.2257466	29.6224947
hm07	-31.2334331	29.4747546	hm24	-31.2230246	29.6233992
hm08	-31.2342547	29.4750843	hm25	-31.2215366	29.6311698
hm09	-31.2336449	29.4765635	hm26	-31.2159738	29.634608
hm10	-31.2418888	29.4898671	hm27	-31.2095056	29.6412356
hm11	-31.2424377	29.4911146	hm28	-31.2100157	29.6416267
hm12	-31.2445228	29.5117058	hm29	-31.2095112	29.6423027
hm13	-31.2450655	29.5102124	hm30	-31.2084892	29.6411961
hm14	-31.2441903	29.5629299	hm31	-31.20827	29.6757098
hm15	-31.2336986	29.5907532	hm32	-31.206085	29.678963
hm16	-31.2328361	29.5928398	hm33	-31.2068599	29.6865488
hm17	-31.2276588	29.6115144	hm34	-31.2061884	29.6869073



FIG. 6: SENSITIVE AREA ALONG THE TAWENI LINE¹



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¹ Red circle = 1937, yellow circle = 1937 & 1980



FIELD SURVEY

The field survey was undertaken over three days in 2010. Table 1 and Figure 6 show the locations of the finds. Twelve sites were observed on the original survey. The transmission line has been kept in the general same location, with the exception of one area.

In general, there were isolated Middle Stone Age artefacts along the transmission line route. These were either on the surface or above the gravel riverine deposits. Several individual upper grinding stones were also observed. This is to be expected in terrains such as these. These isolated artefacts have little significance.

Name	Description	South	East	Requires
				Mitigation
MFIN01	Settlement	-31.232853	29.470010	No
MFIN02	Terracing	-31.235489	29.481613	No
MFIN03	Cemetery	-31.239517	29.492850	No
MFIN04	Grave	-31.244949	29.524154	Yes
MFIN05	Grave	-31.245455	29.524573	Yes
TAWE01	Cemetery	-31.227028	29.620833	No
TAWE02	Settlement &	-31.229944	29.618611	No
	Grave			
TAWE03	Settlement &	-31.199464	29.695517	No
	graves?			
TAWE04	Cemetery	-31.209664	29.686164	No
TAWE05	Grave	-31.207369	29.651753	No
TAWE06	Grave	-31.207383	29.650533	No
TAWE07	Cemetery	-31.221708	29.665667	No

TABLE 2: SUMMARY OF RECORDED HERITAGE SITES

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TAWE01

TAWE01 consists of several human graves along the ridge of the hill. These graves are of various ages, and some appear to be older than 60 years. The transmission line occurs from either route option, between 140m and 200m, from the graves. The access road to the hill, and thus for pylons, will however pass next to the graves. One grave is ~1m from the existing track.

The line is 230m north of the cemetery; however, it may be affected by the access road.

Significance: Human graves are of high significance.

Mitigation: The cemetery should be clearly demarcated, with the assistance of the community, before construction phase. This will ensure that construction vehicles do not accidently drive over the older and less visible graves, as the access road will probably pass the site.

TAWE02

The site consists of a single grave within an existing homestead. TAWE02 occurs ~350m south of the line; however, it is near a potential access road.

Significance: Human graves are always of high significance.

Mitigation: The grave is already clearly demarcated and no further mitigation is required.

TAWE03

The site consists of several ruined buildings and possible graves (fig. 7). The buildings do not appear to be older than 60 years (see architect's comments), and occur in the servitude. There is a patch of sisal directly on the line route.

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Traditionally sisal was used to kraals, and thus graves by association. Due to the denseness of the sisal, I could not determine if these were human graves; however, they should be treated as possible graves.

TAWE03 is located ~500m southwest of the original proposed Taweni substation. The substation has been moved further to the south.

Significance: The possible graves are of high significance until proven otherwise. While the buildings are of low significance, there is no reason to damage them.

Mitigation: Any pylon should be placed at least 50m to the northeast or northwest of the edge of the site. In this way, it would not damage any features.

TAWE04

TAWE04 is a group of graves in a homestead near the original route or its servitude. This is typical of recent graves in the area (see TAWE07 for photograph).

The route has been deviated away from the site and is now 320m south of the line.

Significance: Human graves are of high significance Mitigation: The route will not affect the grave

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FIG. 7: VARIOUS STRUCTURES AT TAWE03²



TAWE05

TAWE05 is a grave close to an abandoned homestead near the road. This is typical of recent graves in the area (see TAWE07 for photograph).

The graves are ~200m away from the line. They are unlikely to be damaged by access roads, as they are adjacent to an existing provincial road.



² Clockwise: general site, pump house or out house, round feature with oven, main building, possible graves (center).



Significance: Human graves are of high significance. Mitigation: The route will not affect the grave

TAWE06

TAWE06 is a single grave near the main access road for this route.

The grave is ~200m away from the line. The grave may be affected by an access road, as it is near an existing track that will probably be used in the construction phase.

Significance: Human graves are of high significance.

Mitigation: The line will not affect the grave. The access road may however, affect it, and the grave should be demarcated.

TAWE07

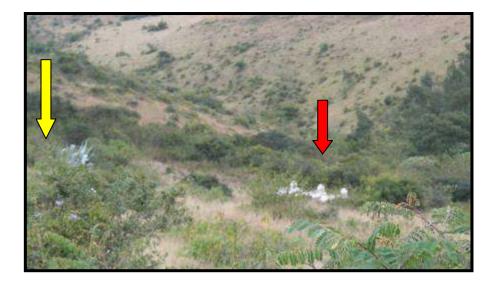
TAWE07 is a group of graves in a homestead near the route or its servitude. They were recorded during the survey as a standard example of recent graves of the area.

Significance: Human graves are of high significance

Mitigation: The route will not affect the graves.



FIG. 8: GRAVES NEAR A HOMESTEAD³



MFIN01

MFIN01 is located ~100m north of the line. It consists of the foundation remains of several houses, and one whetstone. The people, who lived here, have moved ~50m northwards.

Significance: The site is of low significance Mitigation: No mitigation is required.

MFIN02

MFIN02 is located halfway down a hill and beside the road. It consists of a terraced area beside a small stream, and a patch of secondary grass normally associated with kraals. There were three stone cairns, of which one was a retaining wall for a small stream. I could not assess the other two cairns as the grass was long and each had a large puff adder amongst the rocks⁴! I do not believe these are graves.

³Yellow arrow = homestead, red arrow = graves

⁴ It was a health and safety assessment.

MFIN02 is no longer in the servitude of the line, as the line has been realigned.

Significance: The site is of low significance if the two cairns are not graves.

Mitigation: If the pylons are placed in this area, then the two cairns should be (carefully) reassessed.

MFIN03

Near the base of a hill is the Lumayini cemetery (fig. 9). It appears to have been in use for some time, as some graves are weathered. The cemetery is extensive and covers the entire base of the hill (fig. 10). The older graves are difficult to see and are just depressions in the soil (of which some have headstones). The more recent graves have prominent structures.

The cemetery will not be affected as the line has been realigned.

Significance: Human graves and cemeteries are of high significance.

Mitigation: The line will need to be moved northwards towards the road indicated in figure 6, or southwards of the cemetery. I suggest that the community is actively involved in this section of the line so that older graves are not accidently disturbed.

MFIN04

MFIN04 consists of a single grave in front of an abandoned homestead. The line occurs ~80m to the north of the grave. The access road may pass near the grave.

Significance: The human grave is of high significance.

Mitigation: If the access road passes near the grave, it must not affect it in any manner.

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FIG. 9: CEMETERY AT MFIN03⁵



⁵ Clockwise: Recent graves, 'mud' mound, single small headstone

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MFIN05

MFIN05 is located near MFIN04 and is a possible recent burial. It occurs in front of an abandoned corrugated house.

Significance: The human grave is of high significance.

Mitigation: If the access road passes near the grave, it must not affect it in any manner. The community has mentioned that there are several graves in the area, and this will be noted in the social impact assessment.

FIG. 10: HOUSE AND GRAVE AT MFIN04





According to the community, there are several graves in the general area. The line does pass near several homesteads that may have associated human graves, but it will not affect these.

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MANAGEMENT PLAN

The heritage survey located several sites along the re-aligned Taweni line. Some of these sites are graves, and they require fencing prior to the construction phase. These graves are near the access roads and are as follows:

- TAWE01
- TAWE02
- MFIN04
- MFIN05

The area demarcated as being sensitive is located up to 370m south of MFIN02 and MFIN03. The area has nine sites in the general area and has not been surveyed. This section will need to be surveyed prior to construction phase, if not sooner. If graves do occur along the line, then the line will need to be rerouted.

CONCLUSION

Umlando was contracted by Coastal Environmental Services to undertake the heritage survey of for the construction of a 132kV line from the proposed Taweni substation to the proposed Mfinizo substation near Lusikisiki, in the Eastern Cape. There were initially two separate lines that were surveyed in 2010 (Anderson 2010, Anderson 2010). Subsequently, Eskom has combined the two lines and requested a combined report. The line has deviated in a few places, and these have not been surveyed. One deviation resulted in a new sensitive area being noted, and this requires a survey.

Four heritage sites were noted to occur near possible access roads. The sites are graves and will need to be fenced off prior to the construction phase. No others will be affected along the new line.

<u>Taweni HIA</u>

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APPENDIX A SITE RECORD FOMS

<u>Taweni HIA</u>



UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: MFIN01 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°13'58.27"S 29°28'12.04"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drove north with the R61 towards Mfinizweni. Take 1st right dirt road at Mfinizweni. Follow with GPS

SITE DESCRIPTION:

Type of Site: house remains Merits conservation: no Threats: no What threats:

RECORDING: Graphic record: Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

MFIN01 is located ~100m north of the line. It consists of the foundation remains of several houses, and one whetstone. The people, who lived here, have moved ~50m northwards.





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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: MFIN02 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°14'7.76"S 29°28'53.81"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drove north with the R61 towards Mfinizweni. Take 1st right dirt road at Mfinizweni. Follow with GPS

SITE DESCRIPTION:

Type of Site: house and possible grave Merits conservation: Threats: Yes What threats: pylons

RECORDING: Graphic record: Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

MFIN02 is located halfway down a hill and beside the road. It consists of a terraced area beside a small stream, and a patch of secondary grass normally associated with kraals. There were three stone cairns, of which one was a retaining wall for a small stream. I could not assess the other two cairns as the grass was long and each had a large puff adder amongst the rocks! I do not believe these are graves.

Taweni HIA



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: MFIN03 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°14'22.26"S 29°29'34.26"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drove north with the R61 towards Mfinizweni. Take 1st right dirt road at Mfinizweni. Follow with GPS

SITE DESCRIPTION:

Type of Site: cemetery Merits conservation: yes Threats: Yes What threats: transmission line and pylons

RECORDING: Graphic record: x Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

Near the base of a hill is the Lumayini cemetery. It appears to have been in use for some time, as some graves are weathered. The cemetery is extensive and covers the entire base of the hill. The older graves are difficult to see and are just depressions in the soil (of which some have headstones). The more recent graves have prominent structures.



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period:X

Recorder's Site No.: MFIN04 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°14'41.82"S 29°31'26.96"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drove north with the R61 towards Mfinizweni. Take 1st right dirt road at Mfinizweni. Follow with GPS

SITE DESCRIPTION:

Type of Site: x Merits conservation: yes Threats: Yes What threats: access raods

RECORDING: Graphic record: x Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

MFIN04 consists of a single grave in front of an abandoned homestead. The line occurs ~80m to the north of the grave. The access road may pass the grave.



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period:X

Recorder's Site No.: MFIN05 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°14'43.64"S 29°31'28.46"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drove north with the R61 towards Mfinizweni. Take 1st right dirt road at Mfinizweni. Follow with GPS

SITE DESCRIPTION:

Type of Site: grave? Merits conservation: yes Threats: Yes What threats: access road

RECORDING: Graphic record: x Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

MFIN05 is located near MFIN04 and is a possible recent burial. It occurs in front of an abandoned corrugated house.





UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: TAWE01 Official Name: Buhlanyanga Local Name: Buhlanyanga Map Sheet: GPS reading: 31°13'37.30"S 29°37'15.00"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Roads have no names, so I GPS will be needed.

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: No Digital pictures:

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE01 consists of several human graves along the ridge of the hill. These graves are of various ages, and some appear to be older than 60 years. The transmission line occurs from either route option, between 140m and 200m, from the graves. The access road to the hill, and thus for pylons, will however pass next to the graves. One grave is ~1m from the existing track.



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: TAWE02 Official Name: Buhlanyanga Local Name: Buhlanyanga Map Sheet: GPS reading: 31°13'47.80"S 29°37'7.00"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

Roads have no names, so a GPS will be needed.

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE02 occurs ~350m south of the one route option; however, it is near an access road. The site consists of a single grave within a homestead.



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<u>Taweni HIA</u>

<u>01/12/2011</u>

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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: TAWE03 Official Name: TAWENI Local Name: TAWENI Map Sheet: GPS reading: 31°11'58.07"S 29°41'43.86"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Possible Grave & homestead Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE03 is located ~500m southwest of the proposed Taweni substation. The site consists of several ruined buildings and possible graves. The buildings do not appear to be older than 60 years (see architect's comments), and occur in the servitude. There is a patch of sisal directly on the line route. Traditionally sisal was used to demarcate graves. Due to the dense nature of the sisal, I could not determine if these were human graves; however, they should be treated as possible graves.

<u>Taweni HIA</u>



<u>01/12/2011</u>

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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: TAWE04 Official Name: N/A Local Name: N/A Map Sheet: GPS reading: 31°12'34.79"S 29°41'10.19"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE04 is a group of graves in a homestead near the route or its servitude. This is typical of recent graves in the area



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period:

Recorder's Site No.: TAWE05 Official Name: Local Name: Map Sheet: GPS reading: 31°12'26.53"S 29°39'6.31"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., Take first dirt road just before Holy Cross and follow it all the way, keeping to the left of all forks. Site is near alst cluster of homesteads before the valley.

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

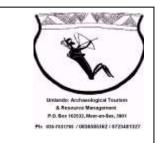
Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE05 is a grave near an abandoned homestead near the route or its servitude. This is typical of recent graves in the area





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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: X

Recorder's Site No.: TAWE06 Official Name: n/a Local Name: n/a Map Sheet: GPS reading: 31°12'26.58"S 29°39'1.92"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., Take first dirt road just before Holy Cross and follow it all the way, keeping to the left of all forks. Site is near last cluster of homesteads before the valley.

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE06 is a single grave near the main access road for this route.



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UMLANDO ARCHAEOLOGICAL SITE RECORD FORM

SITE CATEGORY: (X where applicable) Stone Age: Early Iron Age: Late Iron Age Historical Period: x

Recorder's Site No.: TAWE07 Official Name: n/a Local Name: n/a Map Sheet: GPS reading: 31°13'18.15"S 29°39'56.40"E

DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.

From Lusikisiki drive towards Holy Cross., pass holy cross and take the Edolophini turn off. Thereafter use GPS

SITE DESCRIPTION:

Type of Site: Grave Merits conservation: Yes Threats: No What threats:

RECORDING: Graphic record: Yes Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson Address: PO Box 102532, Meerensee, 3901 Date: April 2010

Description of site and artefactual content.

TAWE07 is a group of graves in a homestead near the route or its servitude. They were recorded during the survey as a standard example of recent graves of the area.



