

**A SURVEY OF CULTURAL RESOURCES FOR THE
TWICKENHAM-HACKNEY MINE DEVELOPMENT,
SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE**

For:

SRK CONSULTING
PO Box 55291
NORTHLANDS
2116

Survey conducted and report prepared by the:

NATIONAL CULTURAL HISTORY MUSEUM
PO Box 28088
SUNNYSIDE
0132

Telephone - (012) 324 6082
Telefax - (012) 328 5173

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NASIONALE KULTURHISTORIESE MUSEUM
NATIONAL CULTURAL HISTORY MUSEUM

SUMMARY

A survey of cultural resources for the Twickenham-Hackney mine development, Sekhukhune District, Limpopo Province

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural importance found within the boundaries of the area in which it is proposed to develop the mine and its infrastructure.

Based on what was found and its evaluation, it is recommended that the proposed development can continue in the different areas, on condition of acceptance of the following recommendations:

- The different identified historical sites (see Appendix 2) should be documented as part of a mitigation process. This would consist of detailed drawing being made as well as photographic documentation. Where possible, oral traditions regarding the sites should also be documented. Artefacts found on the sites, eg. grinding stones, should be removed to a museum. For this, a valid permit must be obtained from SAHRA.
- If any graves are identified during this documentation process, they should be relocated, but only after consultation with the local community.
- The larger area is historically very important, as it was the original home of the Pedi polity, as well as being the battlefield where the British and the Pedi clashed in 1879. Although the mine development would not impact on this directly, it does so in an indirect manner – eg. visually, as well as creating more interest in the area, with the possibility of more people getting access to the different sites. In order to pre-empt this, it is recommended that these areas be strictly avoided. The environmental officers at the mine should take responsibility for protecting these sites and should be taught how to conserve them. Alternatively, a programme for local tourism can be developed so that access to these sites can take place under controlled circumstances as well as generating additional income for the community. ACACHS, a non-profit unit in the Dept. of Anthropology at UNISA, in conjunction with the Cultural History Museum, Pretoria, have wide experience in setting up such programmes.
- The developer should be notified that archaeological sites might be exposed during the construction work. If anything is noticed, it should immediately be reported to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the finds can be made.

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A SURVEY OF CULTURAL RESOURCES FOR THE TWICKENHAM-HACKNEY MINE DEVELOPMENT, SEKHUKHUNE DISTRICT, LIMPOPO PROVINCE

1. AIMS OF THE SURVEY

The National Cultural History Museum was contracted by **SRK Consulting** to survey areas in which it is proposed to develop the Twickenham-Hackney platinum mine. This is actually a follow-up of previous work, as the “footprint” of the mine have been changed somewhat and it is therefore necessary only the survey the new areas that is to be impacted upon by the development.

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural importance found within the boundaries of the area that is to be impacted by the developed.

2. TERMS OF REFERENCE

The **Terms of Reference** for the study were to:

- 2.1 Identify all objects, sites, occurrences and structures of an archaeological or historical nature located in the area of the proposed development.
- 2.2 Assess the significance of the cultural resources in terms of their historical, social, religious, aesthetic and scientific value.
- 2.3 Determine the possible impacts on the known and potential cultural resources in the area of interest.
- 2.4 Develop mitigation or control measures for impact minimization and cultural resources preservation.
- 2.5 Develop procedures to be implemented if previously unidentified cultural resources are uncovered during the construction.

3. DEFINITIONS AND ASSUMPTIONS

The following aspects have a direct bearing on the survey and the resulting report:

- X **Cultural resources** are all nonphysical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- X The **significance** of the sites and artifacts are determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the

various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.

- X Sites regarded as having low significance have already been recorded in full and require no further mitigation. Sites with medium to high significance require further mitigation.
- X The latitude and longitude of archaeological sites are to be treated as sensitive information by the developer and should not be disclosed to members of the public.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are mainly dealt within two acts. These are the South Africa Heritage Resources Act (Act 25 of 1999) and the Environmental Conservation Act (Act 73 of 1989).

4.1 South African Heritage Resources Act

Archaeology, palaeontology and meteorites

Section 35(4) of this act states that no person may, without a permit issued by the responsible heritage resources authority:

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- (c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency.

Human remains:

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- (b) destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old is subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations.

Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925). Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (ie where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

4.2 Environmental Conservation Act

This act states that a survey and an evaluation of cultural resources should be undertaken in areas where development, which will change the face of the environment, is to be made. The impact of the development on the cultural resources should also be determined and proposals to mitigate this impact is to be formulated.

5. METHODOLOGY

5.1 Preliminary investigation

5.1.1 Survey of the literature

A survey of the relevant literature was conducted with the aim of reviewing the previous research done and determining the potential of the area. In this regard, various anthropological, archaeological and historical sources were consulted - see the list of references below. Nothing pertaining to the archaeology of this particular area was found, although a number of survey reports from adjacent areas exist. Some source on historical events that took place in the area also exists.

5.1.2 Data bases

The **Archaeological Data Recording Centre (ADRC)**, housed at the National Cultural History Museum, Pretoria, was consulted. The **Environmental Potential Atlas** was also consulted.

5.1.3 Other sources

The topocadastral and other maps were also studied - see the list of references below.

5.2 Field survey

The field survey was done according to generally accepted archaeological practices. The areas that had to be investigated were identified by SRK Consulting by means of detailed maps. After locating these areas on site, they were investigated by walking across it in grid patterns. Special attention was given to unnatural topographical occurrences such as trenches, holes, outcrops and clusters of trees were investigated.

Where possible, local people were interviewed in an effort to obtain information on the existence of known sites.

5.3 Documentation

All sites, objects and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the **Global Positioning System (GPS)**.¹ Map datum used: WGS 84. This information was added to the description in order to facilitate the identification of each locality.

6. DESCRIPTION OF THE AREA

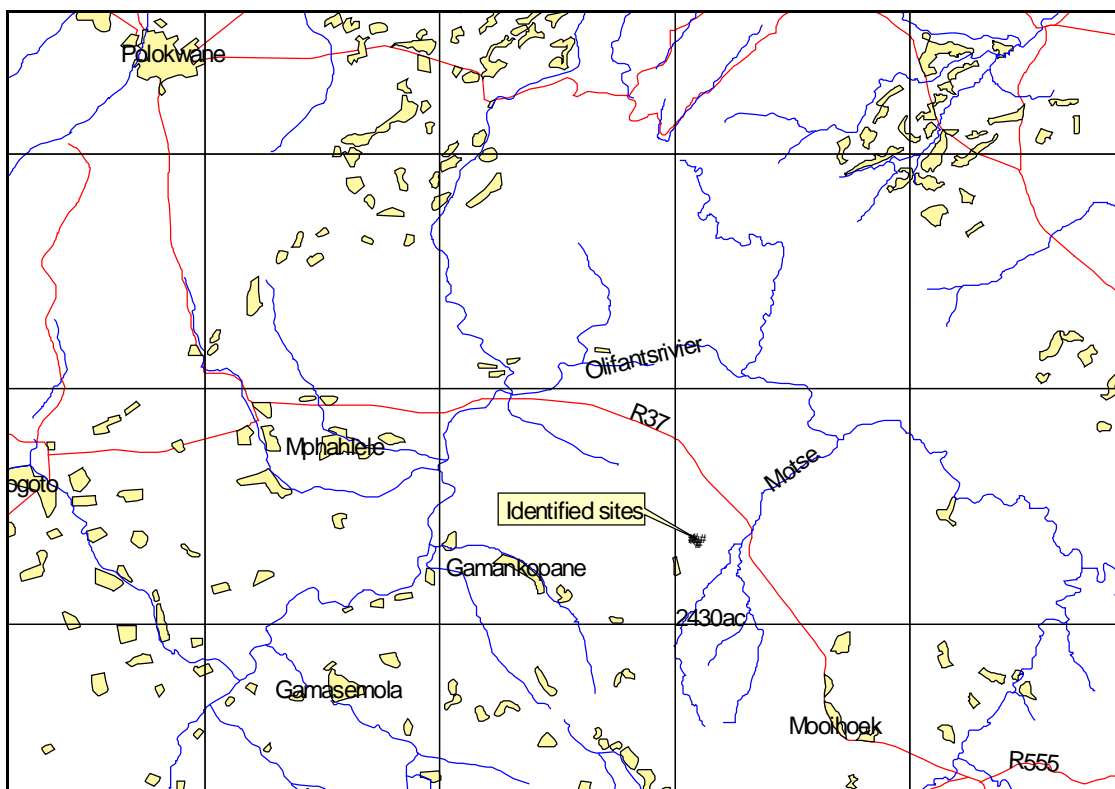


Figure 1. Location of the identified sites.

The areas surveyed were determined by the proposed development, described as the development “footprint”, and occur on the farms Twickenham, Hackney, Surbiton and Forrest Hill in the Sekhukhune district of Limpopo Province (see Fig. 1). The areas investigated include the position of the different shafts, with their supporting buildings, access roads, haul roads, pipelines for water, return water dams, conveyor belt routes and construction camps (Fig. 2).

¹¹ According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then correlate it with reference to the physical environment before plotting it on the map.

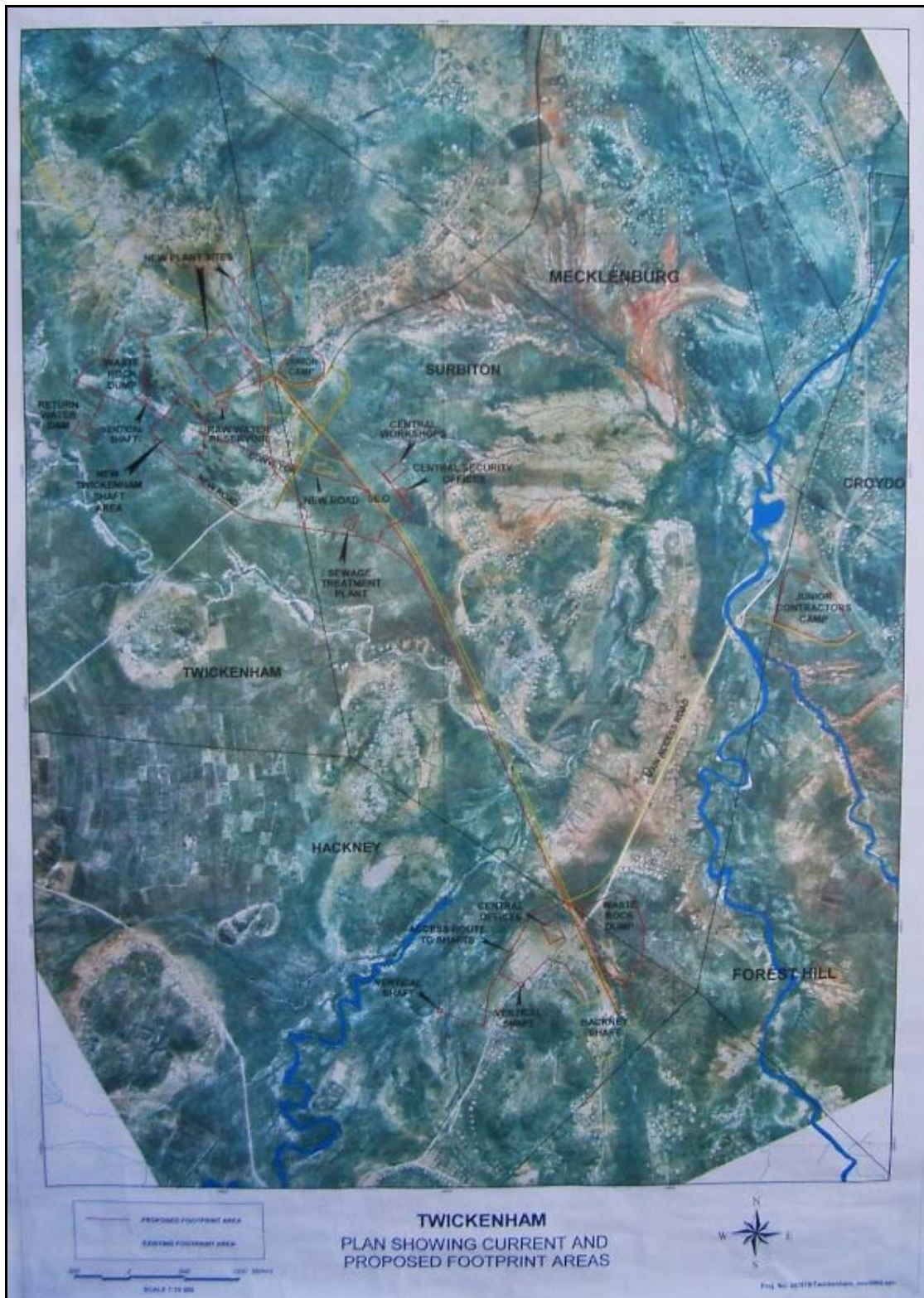


Figure 2. Detailed map of the proposed development - yellow = old or already surveyed areas, red = new area that were surveyed for the purpose of this study.

The topography of the area varies from low mountains, to plains, bisected by a number of smaller rivers.

The geology consists of norite, with gabbro occurring to the west of the area. Chert, quartz and other fine-grained material occur on the sites. These might occur naturally in the area, but in all probability were imported into the area by Stone Age people who used it for making of tools.

The original vegetation of the area consisted of two veld types – Mixed Bushveld and a section of Sourish Mixed Bushveld wedging in from the west of the survey area. However, agricultural activities – ploughing and grazing – and harvesting of wood, has turned it largely into scrub veld.

7. DISCUSSION

This report should be read in conjunction with previous reports – see Van Schalkwyk (2002a, 2002b, 2002c, 2002d).

The area is rich in Stone Age archaeology. Tools dating to the Middle and Late Stone Age are found all over. However, this material is all surface material, eroding out in dongas and riverbeds. The implication is that it is not in primary context any more and therefore do not have much significance.

A number of sites dating to the Early Iron Age were identified. Most of these are located outside the area of impact.

A number of sites containing graves were identified in or near the area of proposed development, most of which have already been relocated.

Probably the most significant aspect of the cultural heritage of the area, is that it was the original home of the Pedi polity, especially on the hill known as Mosego, which they occupied during the 1700s and 1800s. They moved away after 1879, after clashing with the British.

A number of sites dating to historical times were identified (see Appendix 2). Some of them have interesting stone walling and indicate layout patterns that is consistent with traditional settlement patterns. It seems that these sites were abandoned at the time when forced resettlement, as part of agricultural betterment schemes, took place in the early 1950s.

A lot of damaged have been caused to these historical archaeological sites by the developer in the making of roads, bush clearing, etc – see Fig. 3. Graves might exist on some of these sites and artefacts, such as grinding stone were noticed. Damage to these sites is not acceptable and the developer should be warned to be more careful in future.



Figure 3. Damaged to one of the stone walled sites. This is not the only such occurrence.

8. RECOMMENDATIONS

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Based on what was found and its evaluation, it is recommended that the proposed development can continue in the different areas, on condition of acceptance of the following recommendations:

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- If any graves are identified during this documentation process, they should be relocated, but only after consultation with the local community.

- The larger area is historically very important, as it was the original home of the Pedi polity, as well as being the battlefield where the British and the Pedi clashed in 1879. Although the mine development would not impact on this directly, it does so in an indirect manner – eg. visually, as well as creating more interest in the area, with the possibility of more people getting access to the different sites. In order to pre-empt this, it is recommended that these areas be strictly avoided. The environmental officers at the mine should take responsibility for protecting these sites and should be taught how to conserve them. Alternatively, a programme for local tourism can be developed so that access to these sites can take place under controlled circumstances as well as generating additional income for the community. ACACHS, a non-profit unit in the Dept. of Anthropology at UNISA, in conjunction with the Cultural History Museum, Pretoria, have wide experience in setting up such programmes.
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9. REFERENCES

9.1.1 Data base

Archaeological Data Recording Centre, National Cultural History Museum, Pretoria.

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

9.2 Published sources

Holm, S.E. 1966. *Bibliography of South African Pre- and Protohistoric archaeology*. Pretoria: J.L. van Schaik.

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Van Warmelo, N.J. 1977. *Anthropology of Southern Africa in Periodicals to 1950.* Pretoria: Government Printer.

9.2.2 Maps

1: 50 000 Topocadastral maps - 2430AC

10. PROJECT TEAM

J van Schalkwyk

APPENDIX 1: STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON CULTURAL RESOURCES

Significance of impact:

- low where the impact will not have an influence on or require to be significantly accommodated in the project design
- medium where the impact could have an influence which will require modification of the project design or alternative mitigation
- high where it would have a “no-go” implication on the project regardless of any mitigation

Certainty of prediction:

- Definite: More than 90% sure of a particular fact. Substantial supportive data to verify assessment
- Probable: More than 70% sure of a particular fact, or of the likelihood of that impact occurring
- Possible: Only more than 40% sure of a particular fact, or of the likelihood of an impact occurring
- Unsure: Less than 40% sure of a particular fact, or the likelihood of an impact occurring

Recommended management action:

For each impact, the recommended practically attainable mitigation actions which would result in a measurable reduction of the impact, must be identified. This is expressed according to the following:

- 1 = no further investigation/action necessary
- 2 = controlled sampling and/or mapping of the site necessary
- 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary
- 4 = preserve site at all costs

Legal requirements:

Identify and list the specific legislation and permit requirements which potentially could be infringed upon by the proposed project, if mitigation is necessary.

APPENDIX 2: SURVEY RESULTS²

[Previous site numbers relate to other known sites on a particular ¼ degree sheet already documented in the ADRC, and does not necessarily refer to sites occurring on or close to the specific area of development.]

Map datum used: WGS 84

1. Site number: 2430AC129

Location: Surbiton 115KT: S 24E24'39.9"; E 30E01'55.6" [S 24.41108; E 30.03211]

Description: Extensive homestead with different activity areas, such as houses, outbuildings and a cattle kraal. Built from stone.

Discussion: According to oral tradition, this structure is not older than 60 years. However, it is a prime example of traditional settlement pattern before the advent of planned settlement in this area, that it should be documented or retained.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 3 = preserve site if possible, otherwise extensive salvage excavation and/or mapping necessary

Legal requirements: SAHRA Permit

2. Site number: 2430AC138

Location: Twickenham 114KT: S 24°24'31.9"; E 30°01'49.3" [S 24.40885; E 30.03037]

Description: So-called sounding stones, although the indentations on the rock reminds one rather of grinding hollows.

Discussion: This is a unique feature and should be avoided by the developer.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 4 = preserve site at all costs

Legal requirements: None

3. Site number: 2430AC139

Location: Twickenham 114KT: S 24°24'27.5"; E 30°01'19.1" [S 24.40764; E 30.02196]

Description: Stone walled site, probably dating to the early 1950s.

Discussion: Features that might be graves was identified on this site.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

4. Site number: 2430AC140

Location: Twickenham 114KT: S 24°24'33.0"; E 30°01'03.5" [S 24.40917; E 30.01765]

Description: Stone walled site, dating to the 1950s

Discussion: The location and layout is typical of pre resettlement homesteads.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action:

²² See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.

Legal requirements: SAHRA permit

5. Site number: 2430AC141

Location: Twickenham 114KT: S 24°24'34.7"; E 30°01'03.2" [S 24.40964; E 30.01756]

Description: Stone walled site, dating to the 1950s

Discussion: The location and layout is typical of pre resettlement homesteads.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

6. Site number: 2430AC142

Location: Twickenham 114KT: S 24°24'42.6"; E 30°01'25.4" [S 24.41185; E 30.02374]

Description: Stone walled site, dating to the 1950s

Discussion: This site has been damaged by a road that was made through it.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

7. Site number: 2430AC143

Location: Twickenham 114KT: S 24°24'54.5"; E 30°01'27.4" [S 24.41515; E 30.02429]

Description: Old homestead, no stone walls.

Discussion: It seems as if there were some graves here that have already been relocated.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

8. Site number: 2430AC144

Location: Twickenham 114KT: S 24°24'54.2"; E 30°01'34.6" [S 24.41505; E 30.02628]

Description: Three stone walled sites, dating to the 1950s.

Discussion: These sites have been damaged by road making activities, which have destroyed some of the stone walling.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

9. Site number: 2430AC145

Location: Twickenham 114KT: S 24°24'40.7"; E 30°01'08.4" [S 24.41129; E 30.01901]

Description: Stone walled site, dating to the 1950s or even earlier.

Discussion: This site might fall just outside the area of impact, but should also be documented because of possible future development.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: 2 = controlled sampling and/or mapping of the site necessary

Legal requirements: SAHRA permit

10. Site number: 2430AC147

Location: Twickenham 114KT: S 24°24'19.9"; E 30°00'49.5" [S 24.40553; E 30.01376]

Description: Surface scattering of potsherds dating to recent historical times. No other features or structures can be associated with the potsherds and it is thought that they are washed down from higher upslope.

Discussion: This site is located close to the proposed haul road, but as the material is surface material, it is not viewed as of any significance.

Significance of impact: Low

Certainty of prediction: Definite

Recommended management action: 1 = no further investigation/action necessary

Legal requirements: None

APPENDIX 3: GLOSSARY AND ABBREVIATIONS

This section is included to give the reader some necessary background. It must be kept in mind, however, that these dates are all relative and serve only to give a very broad framework for interpretation.

STONE AGE

Early Stone Age (ESA)	2 000 000 - 150 000 Before Present
Middle Stone Age (MSA)	150 000 - 30 000 BP
Late Stone Age (LSA)	30 000 - until c. AD 200

IRON AGE

Early Iron Age (EIA)	AD 200 - AD 1000
Late Iron Age (LIA)	AD 1000 - AD 1830

HISTORICAL PERIOD

Since the arrival of the white settlers - c. AD 1840 in this part of the country

ADRC - Archaeological Data Recording Centre

core - a piece of stone from which flakes were removed to be used or made into tools

SAHRA - South African Heritage Resources Agency