

**A SURVEY OF CULTURAL RESOURCES ON THE
FARM OLIFANTSFONTEIN, MIDRAND MUNICIPAL
AREA, GAUTENG PROVINCE**

For:

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SUMMARY

A survey of cultural resources on the farm Olifantsfontein, Midrand municipal area, Gauteng Province

Some 14 sites of cultural significance were identified during a survey of the above area. This represents an important local legacy of cultural resources, which must be considered before development takes place. It is judged that all the identified sites would be impacted upon to various degrees by future development.

The recommendations contained in the report deals with the implementation of mitigatory measures when impact assessments are conducted, the protection and utilisation of sites and suggestions for a follow-up survey. Summarised, this report recommends the following:

- Appropriate measures should be taken to safeguard all cemeteries and graves, so that they are not endangered by industrial, commercial, mining and residential development. All graves and cemeteries, identified during the survey, as well as those still to be discovered in the course of development planning, should be fully mapped and documented, implying the transcription of texts on tombstones, site layout maps and capture on photographs.
- Streams and rivers seem to have been populated and used during Stone Age times. It is recommended that development is kept away from these, or, alternatively, that any development includes a prior investigation by an archaeologist.
- It must be kept in mind that archaeological objects and features, due to their specific nature, usually occur below ground level. It is therefore recommended that any developer be notified that archaeological sites might be exposed during construction. If anything is noticed, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the find can be made.
- Many of the historic structures identified during the survey are older than sixty years and therefore fall under the blanket protection by the South African Heritage Resources Agency (SAHRA). Any developer should be made aware that permits are needed for demolishing and removing these cultural resources. Submissions for obtaining such permits should be directed to the regional Plans Committee of the SAHRA.
- Irrespective of whether development will occur or not, a number of cultural resources of historic origin should undergo proper and detailed investigation, documentation and mapping, on the basis of which plans and programmes for their protection should be developed. These sites include the historic lime-works at Olifantsfontein and the original Olifantsfontein farmstead.

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**A SURVEY OF CULTURAL RESOURCES ON THE
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1. AIMS OF THE SURVEY

The National Cultural History Museum was requested by **Eco Assessments** to survey a portion of the farm Olifantfontein 410JR in the Midrand municipal area. The aim of the survey was to locate, identify, evaluate and document the sites, objects and structures of cultural significance found within the boundaries of the area that is to be mined.

2. TERMS OF REFERENCE

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

- 2.1 Identify all objects, sites, occurrences and structures of an archaeological or historical nature, ie cultural resources, located in the area of the proposed development.
- 2.2 Assess the significance of these cultural resources in terms of their historical, social, religious, aesthetic and scientific value.
- 2.3 Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 2.4 Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources. This can include recommendations for the sustainable development and use of the identified cultural resources.
- 2.5 Develop procedures to be implemented if previously unidentified cultural resources are uncovered during construction phase.

3. DEFINITIONS

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

- ∅ **Cultural resource** is a broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. They can be, but are not necessarily identified with defined locations.
- ∅ **Heritage** includes those aspects of culture, tradition and history that have value for people in the present and are passed on from one generation to the next. It is the sum total of sites and manifestations of geological, zoological, botanical and historical (cultural) importance, thus, heritage consists of cultural and natural resources.

- ∅ The **significance** of the sites and artefacts is 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 a site is done with reference to any number of these.
- ∅ Significance is site-specific and relates to the content and context of the site. 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.

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 of 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 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 list of references below. A great deal of information is obtainable from files kept in the Pieter Steenhoff Library (Margie Moore Collection).

5.1.2 *Data sources*

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

5.1.3 *Other sources*

Topographical and other maps were studied - see list of references below.

5.2 **Field survey**

The field survey was done in two phases:

Phase 1 was conducted according to generally accepted archaeological practices, aimed at locating unknown sites, objects and structures. The area was divided into blocks, making use of

natural and human-made topographical elements. These blocks were then surveyed in detail by walking and driving across it. In each block, areas with a potential for human use were investigated. Special attention was given to outcrops, cliffs were inspected for rock shelters, while stream beds and unnatural topographical occurrences such as ruins, trenches, holes and clusters of trees were investigated.

Phase 2 was aimed at tracing sites which had already been identified by means of literature and archival research. The known or approximate localities were visited in order to check whether the site still existed, determine its exact locality, and assess its present condition and significance.

5.3 Documentation

Most 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 and plotted on a map. This information was added to the description in order to facilitate the identification of each locality.

5.4 Presentation of the information

In discussing the results of the survey, a chronological rather than a geographical approach was followed in the presentation of an overview of human occupation and land use in the area. This helps the reader to better understand the potential impact of the proposed development. Information on the individual objects, sites, occurrences and structures is presented in Appendix 2.

6. DESCRIPTION OF THE AREA SURVEYED

In general terms, the Midrand area is typical Highveld, a landscape characterised by gently sloping plains, separated by relatively deep valleys carved out by the Jukskei River, Kaalspruit, Olifantsspruit, Modderfontein Spruit and smaller watercourses. At places there are ensembles of large granite boulders, rocky outcrops and hillocks. Except where human settlement has occurred, the plains are generally treeless. Clumps of vegetation occur at many outcrops and hillocks, and the vegetation is more dense in the river valleys.

The area surveyed is indicated in Figure 1. It is largely used for agricultural purposes, with maize fields covering at least 50% of the area surveyed.

¹ 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.

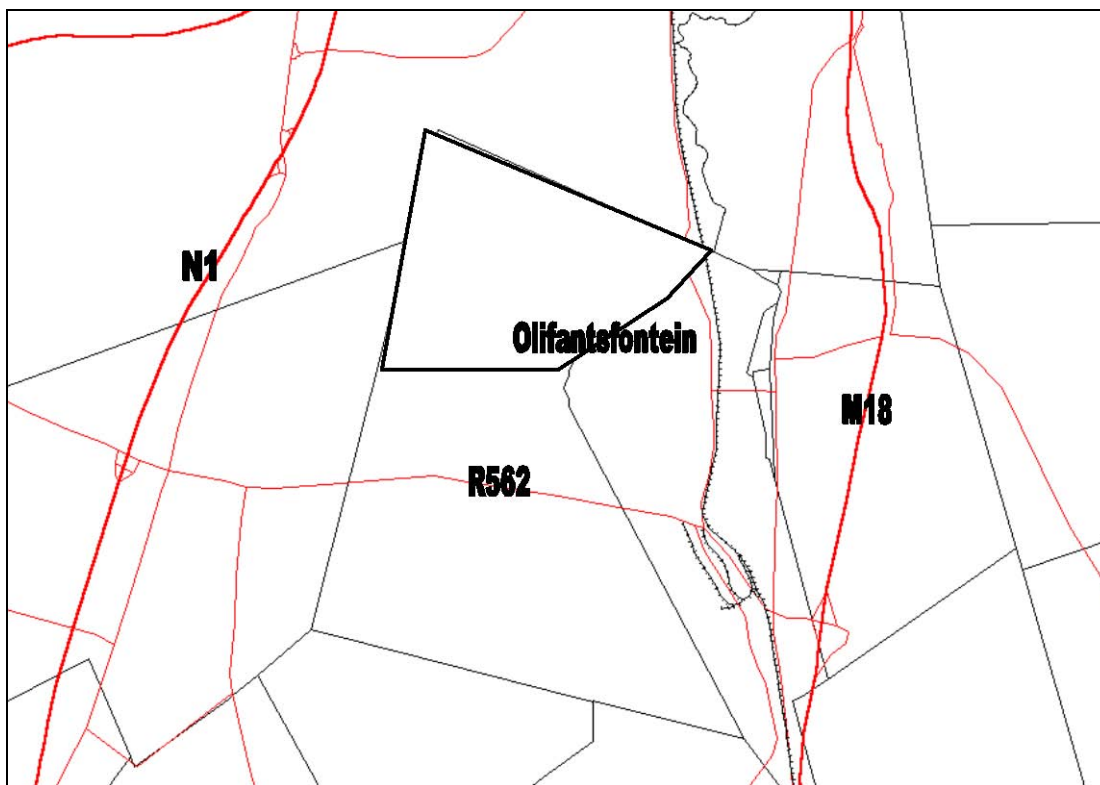


Figure 1. Location of the area that was investigated.

7. DISCUSSION

This environment formed the basis for the patterns of human occupation, which emerged since Early Stone Age times. The river valleys, boulders and rocky ridges were habitat to groups of Stone Age people, and here stone artefacts have been found and can be expected as signs of occupation. Settlement by Iron Age communities took place near rivers and close to rocky outcrops. Clumps of trees often indicate the presence of remaining stone walls and other structures, although none which are of definite Iron Age origin have been found so far.

White farmers, settling in the area since the middle of the 19th century, carved up the landscape into a number of farms, which even today form the framework for agricultural, residential and other forms of development. The farm names also describe the environment: Olifantsfontein, Blue Hills, Witbos, Kaalfontein, Waterval, Diepsloot, etc. Stands of poplar, palm, eucalyptus, pine and other trees often indicate the presence of farmsteads and proved to be helpful in tracing these cultural resources. The area is also divided by a historic railway line (dating back to the 1890s) and a large number of major and minor roads, some of which date back to the previous century, and along which a number of the area's older cultural resources (for example shops, farms, cemeteries, industrial sites) have been identified.

8. RECOMMENDATIONS

- Appropriate measures should be taken to safeguard all cemeteries and graves, so that they are not endangered by industrial, commercial, mining and residential development. All graves and cemeteries, identified during the survey, as well as those still to be discovered in the course of development planning, should be fully mapped and documented, implying the transcription of texts on tombstones, site layout maps and capture on photographs.
- Streams and rivers seem to have been populated and used during Stone Age times. It is recommended that development is kept away from these, or, alternatively, that any development includes a prior investigation by an archaeologist.
- It must be kept in mind that archaeological objects and features, due to their specific nature, usually occur below ground level. It is therefore recommended that any developer be notified that archaeological sites might be exposed during construction. If anything is noticed, it should be reported immediately to a museum, preferably one at which an archaeologist is available, so that an investigation and evaluation of the find can be made.
- Many of the historic structures identified during the survey are older than sixty years and therefore fall under the blanket protection by the South African Heritage Resources Agency (SAHRA). Any developer should be made aware that permits are needed for demolishing and removing these cultural resources. Submissions for obtaining such permits should be directed to the regional Plans Committee of the SAHRA.
- Irrespective of whether development will occur or not, a number of cultural resources of historic origin should undergo proper and detailed investigation, documentation and mapping, on the basis of which plans and programmes for their protection should be developed. These sites include the historic lime-works at Olifantsfontein and the original Olifantsfontein farmstead.

9. REFERENCES

9.1 Database

Archaeological Data Recording Centre (ADRC), National Cultural History Museum, Pretoria.

9.2 Reports

Van Schalkwyk, J. A & de Jong, R. 1998. *A survey of cultural resources in the Midrand Municipal area, Gauteng Province*. Unpublished report 97KH21. Pretoria: National Cultural History Museum.

9.3 Published sources

Acocks, J.P.H. 1975. *Veld Types of South Africa*. Memoirs of the Botanical Survey of South Africa, No. 40. Pretoria: Botanical Research Institute.

Historic Olifantsfontein. *Be My Guest*, August 1988, n.p.

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

Olifantsfontein/Cullinan. *Midrand Reporter*, 17.7.1990, p 18.

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

9.4 *Maps*

1: 50 000 topographical maps: 2528CC Centurion, 1996. Government Printer, Pretoria.

Maps of the following farms and subdivisions, in Surveyor-General's office, Pretoria: Olifantsfontein 410JR

10. **PROJECT TEAM**

J van Schalkwyk
S Moifatswane

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

Status of the impact:

With mitigation and the resultant recovery of material, a negative impact can be turned positive. Describe whether the impact is positive (a benefit), negative (a cost) or neutral

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 1:50,000 degree sheet already documented in the ADRC, and does not necessarily refer to sites occurring on or close to the specific area of interest.]

1. Site number: 2528CC69

Description: Old railway viaduct across Olifantspruit, constructed of stone. The keystones on both sides bear the inscription [IMR 1901 [Imperial Military Railways 1901].

Location: Olifantsfontein 402JR: S 25E55'18.7"; E 28E13'40.2", near the Pinedene station, east of Pretoria-Olifantsfontein Road. Marked on 1975 2528CC map.

Discussion: This viaduct was constructed by British engineers during the Anglo-Boer War (1899-1902), to replace a previous bridge or viaduct which was destroyed by Boer forces.

Significance of impact: High

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: 5 = preserve site all costs

Legal requirements: As this structure is older than 60 years, it is protected by the SAHRA Act.

Sensitivity: 2, as it falls outside the area

2. Site number: 2528CC70

Description: Informal cemetery, containing as many as 10 graves, dating from the period 1925 to 1956. A few do not have headstones.

Location: Olifantsfontein 402JR: S 25E55'27.3"; E 28E13'17.9"

Discussion: This is in all probability a family cemetery.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: It is recommended that the area be upgraded by fencing it, trimming the grass and keep the place clean on a regular basis.

Legal requirements: As these graves are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 2

3. Site number: 2528CC71

Description: Old farmstead known as Charolais

Location: Olifantsfontein 401JR: S 25E55'36.1"; E 28E13'18.7".

Discussion: Consists of main farmhouse (1930s) with a number of outbuildings.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: As some of the structures are older than 60 years, they are protected by the SAHRA Act.

² See Appendix 1 for an explanation of the conventions used in assessing the cultural remains.

Sensitivity: 1

4. Site number: 2528CC72

Description: Ruin of old lime works

Location: Olifantsfontein 402JR: S 25E55'47.7"; E 28E12'53.2"

Discussion: Remains of the lime kiln and other works established by John Richard Holmes in the 1890s. This site is linked to the cemetery at the below site number.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: As these structures are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 1

5. Site number: 2528CC73

Description: An informal cemetery which is very much overgrown with trees and grass. There might be as many as fifty graves. Although the graves are marked, they do not have inscribed headstones. From the associated grave goods it is deduced that these graves belong to black people. In all probability they were labourers at the old lime works.

Location: Olifantsfontein 402JR: S 25E55'47.7"; E 28E12'53.2"

Discussion: This site can be associated with the preceding site number.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: It is recommended that the area be upgraded by fencing it, trimming the grass and keep the place clean on a regular basis. 2 = controlled sampling and/or mapping of the site necessary.

Legal requirements: As these graves are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 2

6. Site number: 2528CC74

Description: Original old Olifantsfontein farmstead.

Location: Olifantsfontein 402JR: S 25E56'19.8"; E 28E12'12.1"

Discussion: Established 150 years ago by Frederik Andries Strydom. Farmhouse was not burnt down during Anglo-Boer War, but was used as British army base. Old buildings have been restored by sixth generation of Strydom family still living there. Old school has also been restored.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: 4 = preserve site if possible, otherwise extensive mapping and documentation necessary

Legal requirements: As these structures are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 1

7. Site number: 2528CC75

Description: Cemetery of the Strydom family.

Location: Immediately below the dam wall on Olifantsfontein 402JR: S 25E56'20.9"; E 28E12'11.3"

Discussion: Some of the graves date back to 1855.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

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

Legal requirements: As these graves are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 2

8. Site number: 2528CC76

Description: Cemetery containing approximately 10 graves, some with headstones.

Location: Next to the dirt road, below the Escom powerlines on Olifantsfontein 402JR: S 25E56'46.7"; E 28E12'08.4"E

Discussion: This is in all probability a family cemetery.

Significance of impact: Medium

Certainty of prediction: Definite

Status of impact: Negative

Recommended management action: It is recommended that the area be upgraded by fencing it, trimming the grass and keep the place clean on a regular basis. 2 = controlled sampling and/or mapping of the site necessary.

Legal requirements: As these graves are older than 60 years, they are protected by the SAHRA Act.

Sensitivity: 2

9. Site number: 2528CC81

Description: 'Sunlawns' farmstead

Location: Olifantsfontein 402JR: S 25E55'44.6"; E 28E13'24.1". West of Irene-Olifantsfontein road, on Sunlawns Agricultural Holdings.

Discussion: Extensive complex of farm buildings, including Neo Cape-Dutch house built 1930 by Roley Cullinan. Rare handmade Linnware tiles.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

Recommended management action: 2 = controlled documentation and mapping necessary

Legal requirements: Main house and other buildings older than 60 years are protected by SAHRA Act.

Sensitivity: 2

10. Site number: 2528CC118

Description: Old cement dam

Location: Olifantsfontein 401JR. : S 25E55'33.2"; E 28E12'53.7"

Discussion: Consists of the base of an old circular cement dam.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

Sensitivity: -2

11. Site number: 2528CC119

Description: Old farmstead

Location: Olifantsfontein 401JR. : S 25E55'35.5"; E 28E13'01.6"

Discussion: Consists of ruins of old farmstead, with a number of outbuildings.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

Sensitivity: -2

12. Site number: 2528CC120

Description: Old homestead

Location: Olifantsfontein 401JR: S 25E55'07.9"; E 28E11'51.4"

Discussion: Consists of ruins of an old farm labourer homestead

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

Sensitivity: -2

13. Site number: 2528CC121

Description: Old homestead

Location: Olifantsfontein 401JR. : S 25E56'19.5"; E 28E11'33.9"

Discussion: Consists of ruins of an old farm labourer homestead

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

Sensitivity: -2

14. Site number: 2528CC122

Description: Old farmstead

Location: Olifantsfontein 401JR. : S 25E56'15.8"; E 28E11'11.0"

Discussion: Consists of ruins of old farmstead, with a number of outbuildings.

Significance of impact: Low

Certainty of prediction: Definite

Status of impact: Neutral

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

Legal requirements: None

Sensitivity: -1

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