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A SURVEY OF CULTURAL RESOURCES IN THE
PROPOSED KLIPSPRUIT MINING AREA,
WITBANK DISTRICT, MPUMALANGA

For:

ORYX ENVIRONMENTAL
6th Floor Everite House
20 De Korte Street
Braamfontein
2001

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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SUMMARY

A survey of cultural resources in the proposed Klipspruit mining area, Witbank District, Mpumalanga

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 the proposed development is to take place.

Based on what was found and its evaluation, it is recommended that the proposed development can continue, but only after suitable mitigation measures for the identified sites are implemented. This consists of:

- All graves should be left alone, or relocated in consultation with the local communities.
- The developers should be notified that archaeological sites might be exposed during the construction work. 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 finds can be made.

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WITBANK DISTRICT, MPUMALANGA

1. AIMS OF THE SURVEY

The National Cultural History Museum was contracted by **Oryx Environmental** to survey to an area in which it is proposed to develop a coal mine, only a section of which will be opencast mining, with the rest being underground. 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:

- **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.
- 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.

- 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.
- 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 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

cenetery 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 particular area was found, although a number of survey reports from adjacent areas exist.

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, and was aimed at locating all possible sites, objects and structures. The areas that had to be investigated were identified on a map supplied by Oryx Environmental. The area was investigated by driving and walking across it. Special attention was given to unnatural topographical occurrences such as trenches, holes and clusters of trees were investigated.

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

Most of the agricultural fields were newly planted during the period when the field survey was undertaken, making the investigation of these areas difficult.

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

6. DESCRIPTION OF THE AREA

The area that was investigated consists of the farms Smaldeel, Oogiesfontein, Klipfontein, Kleinsuikerboschplaat and Zondagsvlei, located to the north, west and south of the hamlet of Ogies, in the Witbank district of Mpumalanga.

The land use of the above area consists largely of agricultural fields, currently planted with maize, beans, sunflowers, etc. The rest of the area is either used for grazing or is to wet for habitation.

7. DISCUSSION

A number of sites were identified. The search was hampered by the current dense vegetation.

7.1 Stone Age

No stone tools were noticed and no sites likely to be inhabited by Stone Age people occur in the area.

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.

7.2 Iron Age

No sites dating to the Iron Age were identified.

7.3 Historical period

A number of old farmsteads occur in the area. However, all are in ruin and none can be related to significant events of persons. A few informal cemeteries containing a varied number of graves, were also identified.

8. RECOMMENDATIONS

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 the proposed development is to take place.

Based on what was found and its evaluation, it is recommended that the proposed development can continue, but only after suitable mitigation measures for the identified sites are implemented. This consists of:

- 8.1 All graves should be left alone, or relocated in consultation with the local communities.
- 8.2 The developers should be notified that archaeological sites might be exposed during the construction work. 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 finds can be made.

9. REFERENCES

9.1 Unpublished sources

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

9.2.1 Books and journals

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

Mason, R.J. 1962. *Prehistory of the Transvaal*. Johannesburg: Witwatersrand University Press.

Van Riet Lowe, C. n.d. *The distribution of Prehistoric rock engravings and paintings in South Africa*. Archaeological Survey, Archaeological Series No. 7.

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 - 2629AA; 2628BB

10. PROJECT TEAM

J van Schalkwyk
S Moifatwane

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 ADDR, and does not necessarily refer to sites occurring on or close to the specific area of development.]

1. Site number: 2629AA21
Location: Smaldeel 11S; S 26°00'46.4"; E 29°01'24.7"
Description: Single grave, marked with a stone cairn
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible; otherwise relocate.
Legal requirements: If relocate, notification and permits.
2. Site number: 2629AA22
Location: Smaldeel 11S; S 26°00'25.2"; E 29°01'20.6"
Description: Cemetery containing graves of eg. Botha's, Norris, etc.
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.
3. Site number: 2629AA23
Location: Oogiesfontein 41S; S 26°01'36.7"; E 29°03'06.7"
Description: Old farmstead
Discussion: Only ruins remain. No graves were identified, but there might be some in the area.
Significance of impact: Low
Certainty of prediction: Definite
Recommended management action: 1 = no further investigation/action necessary
Legal requirements: None
4. Site number: 2629AA24
Location: Oogiesfontein 41S; S 26°02'20.2"; E 29°03'03.9"
Description: Large cemetery, possibly with more than 50 graves. Only a few have formal headstones.
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.

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

5. Site number: 2629AA25
Location: Klensukerboschplaat 51S: S 26°04'08.1"; E 29°01'32.9"
Description: Number of graves; possibly 10 in total, located in two area approximately 10 m apart.
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.
6. Site number: 2629AA26
Location: Zondagsvlei 91S: S 26°04'37.2"; E 29°01'41.8"
Description: Cemetery containing 3 graves of Prinsloo and LaGrance
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.
7. Site number: 2629AA27
Location: Zondagsvlei 91S: S 26°04'40.3"; E 29°01'38.1"
Description: Old farmstead
Discussion: Only ruins remain. This is a mixture of older and new building techniques. Overall, the remains are deemed not to be significant.
Significance of impact: Low
Certainty of prediction: Definite
Recommended management action: 1 = no further investigation/action necessary
Legal requirements: None
8. Site number: 2629AA28
Location: Smaldeel 11S: S 26°03'19.2"; E 29°00'44.1"
Description: Cemetery containing approximately 30 graves, only a few marked with headstones.
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.
9. Site number: 2629AA29
Location: Smaldeel 11S: S 26°03'02.5"; E 28°59'55.3"
Description: Cemetery with 6 graves of Hanekom, Smith, etc.
Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.
Significance of impact: High
Certainty of prediction: Definite
Recommended management action: Avoid if possible, otherwise relocate.
Legal requirements: If relocate, notification and permits.
10. Site number: 2629AA30

Location: Smaldeel IIS: S 26°02'03"; E 29°00'46.5"

Description: Cemetery with 4 graves.

Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: Avoid if possible, otherwise relocate.

Legal requirements: If relocate, notification and permits.

11. Site number: 2629AA31

Location: Klipfontein 3IS: S 26°02'03.0"; E 29°01'32.4"

Description: Cemetery with approximately 50 graves.

Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: Avoid if possible, otherwise relocate.

Legal requirements: If relocate, notification and permits.

12. Site number: 2629AA32

Location: Klipfontein 3IS: S 26°01'42.2"; E 29°01'49.2"

Description: Approximately 17 grave of Cloete family, etc.

Discussion: If this feature is to be impacted upon by open cast mining, it will have to be relocated.

Significance of impact: High

Certainty of prediction: Definite

Recommended management action: Avoid if possible, otherwise relocate.

Legal requirements: If relocate, notification and permits.

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

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

SAHRA - South African Heritage Resources Agency