Heritage impact survey report for the

PROPOSED DEVELOPMENT OF FOUR BORROW PITS FOR THE MEDUPI POWER STATION, LEPHALALE AREA LIMPOPO PROVINCE

THE PROJECT:
Development of a number of borrow pits.

THIS REPORT:
HERITAGE IMPACT SURVEY REPORT FOR THE PROPOSED DEVELOPMENT OF FOUR BORROW PITS FOR THE MEDUPI POWER STATION, LEPHALALE AREA, LIMPOPO PROVINCE

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EXECUTIVE SUMMARY

HERITAGE IMPACT SURVEY REPORT FOR THE PROPOSED DEVELOPMENT OF FOUR BORROW PITS FOR THE MEDUPI POWER STATION, LEPHALALE AREA, LIMPOPO PROVINCE

Due to the development of the Medupi Power Station west of Lephalale, material is needed to upgrade existing as well as new roads. For this purpose, four areas have been identified where borrow pits are to be developed to supply this material, which will be used for road works and terracing activities.

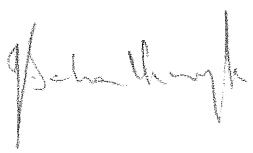
The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the areas in which it is proposed to develop borrow pits.

Past activities in the area consisted of farming – grazing and game ranching, with mining activities in adjacent areas.

No sites, features or objects of cultural significance were identified in the study area. Therefore, based on what was found and its evaluation, it is recommended that development can continue in the area, on condition of acceptance of the following recommendations:

FOR ARC

- If construction takes place and archaeological sites are exposed, 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.



J A van Schalkwyk
Heritage Consultant

TECHNICAL SUMMARY

Property details						
Province	Limpopo					
Magisterial district	Ellisras					
Topo-cadastral map	2327DA, 2327DC					
Closest town	Lephalale					
Farm name & no.	Kuipersbult 511LQ, Grootvallei 515LQ, Hanglip 508LQ & Kromdraai 513LQ					
Portions/Holdings						
Coordinates	Centre point					
	No	Latitude	Longitude	No	Latitude	Longitude
	1	S 23.69544	E 27.58674	3	S 23.72626	S 27.54175
	2	S 23.72080	E 27.55100	4	E 23.76042	E 27.53242

Development criteria in terms of Section 38(1) of the NHR Act	Yes/No
Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Yes
Construction of bridge or similar structure exceeding 50m in length	
Development exceeding 5000 sq m	Yes
Development involving three or more existing erven or subdivisions	
Development involving three or more erven or divisions that have been consolidated within past five years	
Rezoning of site exceeding 10 000 sq m	Yes
Any other development category, public open space, squares, parks, recreation grounds	

Development	
Description	Development of borrow pits
Project name	Medupi borrow pits

Land use	
Previous land use	Agriculture
Current land use	Agriculture

Heritage sites assessment		
Site type	*Site significance*	*Site grading (Section 7 of NHRA)*
None		
Impact assessment		
Impact	*Mitigation*	*Permits required*
None	None	None

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LIST OF FIGURES

GLOSSARY OF TERMS AND ABBREVIATIONS

STONE AGE

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

IRON AGE

Early Iron Age	AD 200 - AD 900
Middle Iron Age	AD 900 - AD 1300
Late Iron Age	AD 1300 - AD 1830

HISTORIC PERIOD

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

ASAPA	Association of Southern African Professional Archaeologists
EIA	Early Iron Age
ESA	Early Stone Age
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
PHRA	Provincial Heritage Resources Agency
SAHRA	South African Heritage Resources Agency

HERITAGE IMPACT SURVEY REPORT FOR THE PROPOSED DEVELOPMENT OF FOUR BORROW PITS FOR THE MEDUPI POWER STATION, LEPHALALE AREA, LIMPOPO PROVINCE

1. INTRODUCTION

Due to the development of the Medupi Power Station west of Lephalale, material is needed to upgrade existing as well as new roads. For this purpose, four areas have been identified where borrow pits are to be developed to supply this material, which will be used for road works and terracing activities.

An independent heritage consultant was appointed by **Arcus Gibb** to conduct a survey to locate, identify, evaluate and document sites, objects and structures of cultural importance found within the boundaries of the areas where the different borrow pits are to be developed.

This HIA report forms part of the Environmental Impact Assessment (EIA) as required by the EIA Regulations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and was done in accordance with Section 38 of the National Heritage Resources Act, No. 25 of 1999 and is intended for submission to the South African Heritage Resources Agency (SAHRA).

2. TERMS OF REFERENCE

The scope of work consisted of conducting a Phase 1 archaeological survey of the site in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999).

This include:

- Conducting a desk-top investigation of the area
- A visit to the proposed development site

The objectives were to

- Identify possible archaeological, cultural and historic sites within the proposed development areas;
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources;
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

3. DEFINITIONS AND ASSUMPTIONS

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

- *Cultural resources* are all non-physical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.

- The *significance* of the sites and artefacts 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. STUDY APPROACH AND METHODOLOGY

4.1 Extent of the Study

This survey and impact assessment covers the area as presented in Section 5 and as illustrated in Figure 1 - 3.

4.2 Methodology

4.2.1 *Preliminary investigation*

4.2.1.1 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.

4.2.1.2 Data bases
The *Heritage Atlas Database,* the *Environmental Potential Atlas* and the *National Archives of South Africa* were consulted.

4.2.1.3 Other sources
Aerial photographs and topocadastral and other maps were also studied - see the list of references below.

4.2.2 *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 by **Arcus Gibb** by means of maps. Each area was investigated by walking across it in a number of transects. Special attention was given to topographical occurrences such as trenches, holes, outcrops and clusters of trees were investigated.

For ARC

4.2.3 *Documentation*

All sites, objects and structures that are identified are documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual

localities are determined by means of the *Global Positioning System* (GPS)[1] and plotted on a map. This information is added to the description in order to facilitate the identification of each locality.

Map datum used: Hartebeeshoek 94 (WGS84).

4.3 **Limitations**

None at present.

5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

5.1 **Site location**

The study area is located southwest of the town of Lephalale in the Ellisras magisterial district of Limpopo Province (Fig. 1 – 2). As such it occupies irregular shaped sections of land on the following farms: Kuipersbult 511LQ, Grootvallei 515LQ, Hanglip 508LQ & Kromdraai 513LQ (the new name for the farm).

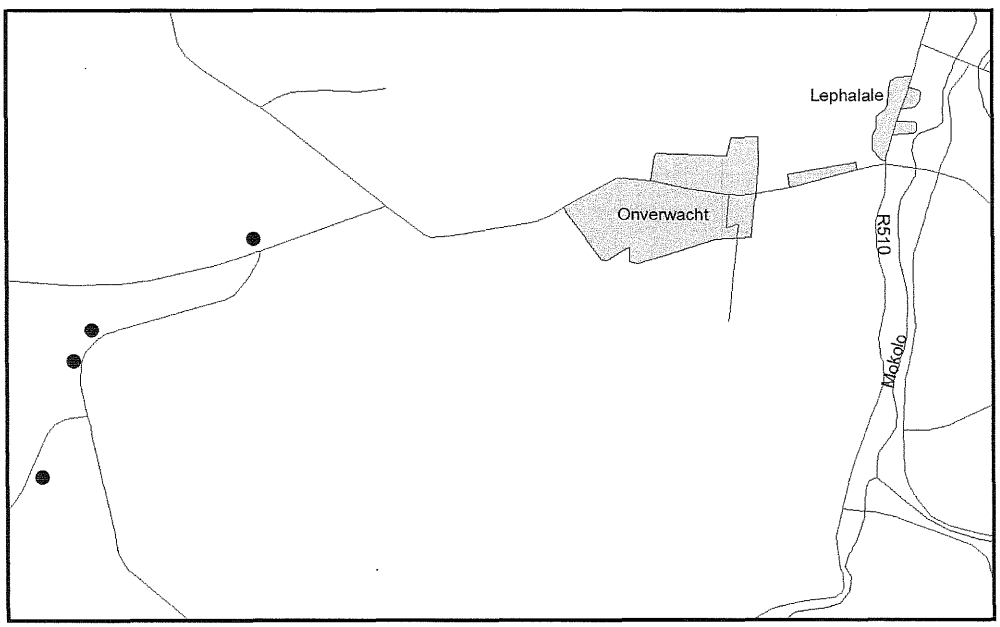

Fig. 1. Location of the study areas (black dots) in regional context.

[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 to correlate it with reference to the physical environment before plotting it on the map.

5.2 **Site description**

The topography of the area is very flat, with very few features (e.g. hills, outcrops or rock shelters, rivers) that usually drew people to settle in its vicinity, are found in the area. Only a few small hills or outcrops occur. All the rivers crossing the area are non-perennial. The biggest river, the Makolo, passes some distance to the east of the study area, flowing from south to north.

The geology is made up of alternating bands of arenite and shale, with a basalt intrusion to the west of the study area. All is overlain by sand, probably aeolic in origin, having being laid down from the west.

The area can be described as typical savannah, with the original vegetation consisting of Mixed Bushveld, with a section to the north classified as Sweet Bushveld.

5.3 **Regional overview**

Probably because of the somewhat inhospitable environment, being very flat, hot and dry (average rainfall of 436 mm per annum) and with few sources of surface water, people did not settle in large numbers in the area in the past.

In the larger region, in areas where there are outcrops, especially close to rivers, rock art sites have been documented. The ones closest to the study area are located on the farm Grootfontein 501LQ, on the northern outskirts of the town of Lephalale. Other rock art sites are found further away to the south and the east.

Early and Later Iron Age sites are similarly found to the south and the east, as well as to the north. As these people were agro-pastoralists (and did not have the technology to extract subterranean water), they preferred to settle in areas where such resources were readily available.

The historic period starts off quite late in this part of the country. Probably one of the earliest published sources that refer to the area, in a generalised sense, is that of the explorer Thomas Baines who passed through the area during the early 1870s. Although for other sections of his travels he gives detailed descriptions of the local population, he does not comment on anybody in this particular area. Although his rendering of the various rivers and other topographical features are quite accurate for the time, he seems to imply that there were no communities settled here (Baines 1877).

Similarly, Van Warmelo (1935) in his encyclopaedic work on the distribution of various Bantu-speaking groups show an area largely devoid of communities, with only a few isolated occurrences, all possibly farm-workers. The closest community indicted by him are the Seleka, who reside approximately 50 km to the north. To the south, is seems from his maps that the area also used to be claimed by the Seleka. This is a very Sothoised group of Ndebele whom have also lived amongst the Ngwato in Botswana and their arrival in the area date to late Pre-colonial times.

In the town of Lephalale (Ellisras) there is a cemetery containing the graves of some of the earliest white settlers in the area. The town of Ellisras was only laid out in December 1960, and was named after two of the pioneer families in the area, Ellis and Erasmus. In 2002, the name was changed to Lephalale. This latter name is taken from the Phalala River, which is derived from the Tswana verb 'to flow' or 'one which overflows' (Raper 2004: 86, 204).

5.4 **Identified sites**

5.4.1 *Stone Age*

No sites, features or objects of cultural significance dating to the Stone Age were identified in the study areas.

5.4 2 *Iron Age*

No sites, features or objects of cultural significance dating to the Iron Age were identified in the study areas.

5.4.3 *Historic period*

On Site No. 3 a shallow trench was located. This was excavated to collect material, called "amandelklip", that was used for building purposes in the past. This is an activity that took place all over the region. A lot of building and other rubble was dumped into the trench on Site No. 3. This feature has no significance.

6. SITE SIGNIFICANCE AND ASSESSMENT

6.1 **Statement of significance**

According to the NHR Act, Section 2(vi), the **significance** of heritage sites and artefacts is determined by it aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the 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 are viewed as been recorded in full after identification and would require no further mitigation. Sites with a medium to high significance would require mitigation. Mitigation, in most cases the excavation of a site, is in essence destructive and therefore the impact can be viewed as high and as permanent.

- No sites, features or objects of cultural significance were identified in the study area.

6.2 **Impact assessment**

Impact analysis of cultural heritage resources under threat of the proposed development, are based on the present understanding of the development.

- As no sites, features or objects of cultural significance were identified in the study area, there would not be any impact.

7. IDENTIFICATION OF RISK SOURCES

A Heritage Impact Assessment is focused on two phases of a proposed development: **the construction** and **operation phases**. The following project actions may impact negatively on archaeological sites and other features of cultural importance. The actions are most likely to occur during the construction phase of a project.

Construction phase:

Possible Risks	**Source of the risk**
Actually identified risks	
- damage to sites	Construction work
Anticipated risks	
- looting of sites	Curious workers

Operation phase:

Possible Risks	**Source of the risk**
Actually identified risks	
- damage to sites	Not keeping to management plans
Anticipated risks	
- damage to sites	Unscheduled construction/developments
- looting of sites	Visitors removing objects as keepsakes

8. RECOMMENDED MANAGEMENT MEASURES

Heritage sites are fixed features in the environment, occurring within specific spatial confines. Any impact upon them is permanent and non-reversible. Those resources that cannot be avoided and that are directly impacted by the development can be excavated/recorded and a management plan can be developed for future action. Those sites that are not impacted on can be written into the management plan, whence they can be avoided or cared for in the future.

8.1 **Objectives**

- Protection of archaeological, historical and any other site or land considered being of cultural value within the project boundary against vandalism, destruction and theft.
- The preservation and appropriate management of new discoveries in accordance with the National Heritage Resources Act (Act No. 25 of 1999), should these be discovered during construction.

8.2.1 *Construction phase*

General management objectives and commitments:
- To avoid disturbing sites of heritage importance; and
- To avoid disturbing burial sites.

The following shall apply:

- Known sites should be clearly marked in order that they can be avoided during construction activities.
- The contractors and workers should be notified that archaeological sites might be exposed during the construction work.
- Should any heritage artefacts be exposed during excavation, work on the area where the artefacts were discovered, shall cease immediately and the Environmental Control Officer shall be notified as soon as possible;
- All discoveries shall 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. Acting upon advice from these specialists, the Environmental Control Officer will advise the necessary actions to be taken;
- Under no circumstances shall any artefacts be removed, destroyed or interfered with by anyone on the site; and

- Contractors and workers shall be advised of the penalties associated with the unlawful removal of cultural, historical, archaeological or palaeontological artefacts, as set out in the National Heritage Resources Act (Act No. 25 of 1999), Section 51. (1).

9. RECOMMENDATIONS

The aim of the survey was to locate, identify, evaluate and document sites, objects and structures of cultural significance found within the areas in which it is proposed to develop borrow pits. , This material will be used for road works and terracing activities.

Past activities in the area consisted of farming – grazing and game ranching, with mining activities in adjacent areas.

No sites, features or objects of cultural significance were identified in the study area. Therefore, based on what was found and its evaluation, it is recommended that development can continue in the area, on condition of acceptance of the following recommendations:

- If construction takes place and archaeological sites are exposed, 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.

10. REFERENCES

10.1 **Data bases**

Chief Surveyor General

Environmental Potential Atlas, Department of Environmental Affairs and Tourism.

Heritage Atlas Database, Pretoria.

National Archives of South Africa

10.2 **Literature**

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

Baines, T. 1877. *The gold regions south eastern Africa*. London: Edward Stanford.

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

Raper, P.E. 2004. *South African place names*. Johannesburg: Jonathan Ball Publishers.

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Van Schalkwyk, J.A. 2005. *Heritage survey report of the Kumba properties at Grootegeluk Mine, Lephalale area, Limpopo Province*. Unpublished report 2005KH090. Pretoria: National Cultural History Museum.

Van Schalkwyk, J.A. 2006. *Heritage impact scoping report for the proposed re-alignment of the Steenbokpan road, Matimba B power station, Lephalale district*, Limpopo Province. Unpublished report 20006KH016. Pretoria: National Cultural History Museum.

Van Schalkwyk, J.A. 2008. Heritage survey report for the development of a water reservoir and pipelines for the new Medupi Power Station, Ellisras magisterial district, Limpopo Province. Unpublished report 2008/JvS/015. Pretoria.

Van Warmelo, N.J. 1935. *A Preliminary survey of the Bantu Tribes of South Africa*. Ethnological Publications No. 5. Pretoria: Government Printer.

10.3 **Maps**

1: 50 000 Topocadastral maps – 2327DA, 2327DC

APPENDIX 1: CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON HERITAGE RESOURCES

Significance

According to the NHRA, Section 2(vi) the **significance** of a heritage sites and artefacts is determined by it aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technical value in relation to the 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.

Matrix used for assessing the significance of each identified site/feature

1. Historic value			
Is it important in the community, or pattern of history			
Does it have strong or special association with the life or work of a person, group or organisation of importance in history			
Does it have significance relating to the history of slavery			
2. Aesthetic value			
It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group			
3. Scientific value			
Does it have potential to yield information that will contribute to an understanding of natural or cultural heritage			
Is it important in demonstrating a high degree of creative or technical achievement at a particular period			
4. Social value			
Does it have strong or special association with a particular community or cultural group for social, cultural or spiritual reasons			
5. Rarity			
Does it possess uncommon, rare or endangered aspects of natural or cultural heritage			
6. Representivity			
Is it important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects			
Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class			
Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.			
7. Sphere of Significance	High	Medium	Low
International			
National			
Provincial			
Regional			
Local			
Specific community			
8. Significance rating of feature			
1. Low			
2. Medium			
3. High			

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. RELEVANT LEGISLATION

All archaeological and palaeontological sites, and meteorites are protected by the National Heritage Resources Act (Act no 25 of 1999) as stated in Section 35:

(1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.

(4) 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 assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

In terms of cemeteries and graves the following (Section 36):

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) No person may, without a permit issued by SAHRA or a provincial 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, 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 equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

The National Heritage Resources Act (Act no 25 of 1999) stipulates the assessment criteria and grading of archaeological sites. The following categories are distinguished in Section 7 of the Act:

- **Grade I**: Heritage resources with qualities so exceptional that they are of special national significance;
- **Grade II**: Heritage resources which, although forming part of the national estate, can be considered to have special qualities which make them significant within the context of a province or a region; and
- **Grade III**: Other heritage resources worthy of conservation, and which prescribes heritage resources assessment criteria, consistent with the criteria set out in section 3(3), which must be used by a heritage resources authority or a local authority to assess the intrinsic, comparative and contextual significance of a heritage resource and the relative benefits and costs of its protection, so that the appropriate level of grading of the resource and the consequent responsibility for its management may be allocated in terms of section 8.

Presenting archaeological sites as part of tourism attraction requires, in terms 44 of the Act, a Conservation Management Plan as well as a permit from SAHRA.

(1) Heritage resources authorities and local authorities must, wherever appropriate, co-ordinate and promote the presentation and use of places of cultural significance and heritage resources which form part of the national estate and for which they are responsible in terms of section 5 for public enjoyment, education. research and tourism, including-

(a) the erection of explanatory plaques and interpretive facilities, including interpretive centres and visitor facilities;
(b) the training and provision of guides;
(c) the mounting of exhibitions;
(d) the erection of memorials; and
(e) any other means necessary for the effective presentation of the national estate.

(2) Where a heritage resource which is formally protected in terms of Part I of this Chapter is to be presented, the person wishing to undertake such presentation must, at least 60 days prior to the institution of interpretive measures or manufacture of associated material, consult with the heritage resources authority which is responsible for the protection of such heritage resource regarding the contents of interpretive material or programmes.

(3) A person may only erect a plaque or other permanent display or structure associated with such presentation in the vicinity of a place protected in terms of this Act in consultation with the heritage resources authority responsible for the protection of the place.

APPENDIX 3: SURVEY RESULTS

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

Map datum used: Hartebeeshoek 94 (WGS84).

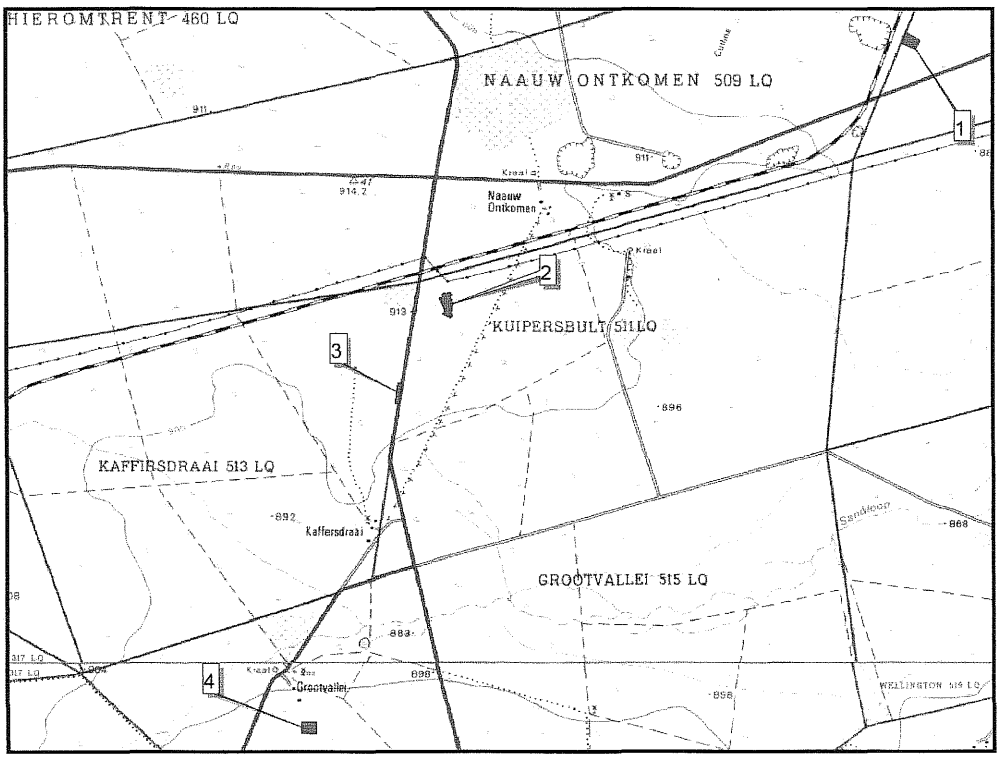

Fig. 2. The study area, showing the location of the study areas.
(Map 2327DA, 2327DC: Chief Directorate Survey and Mapping.)

APPENDIX 4: ILLUSTRATIONS

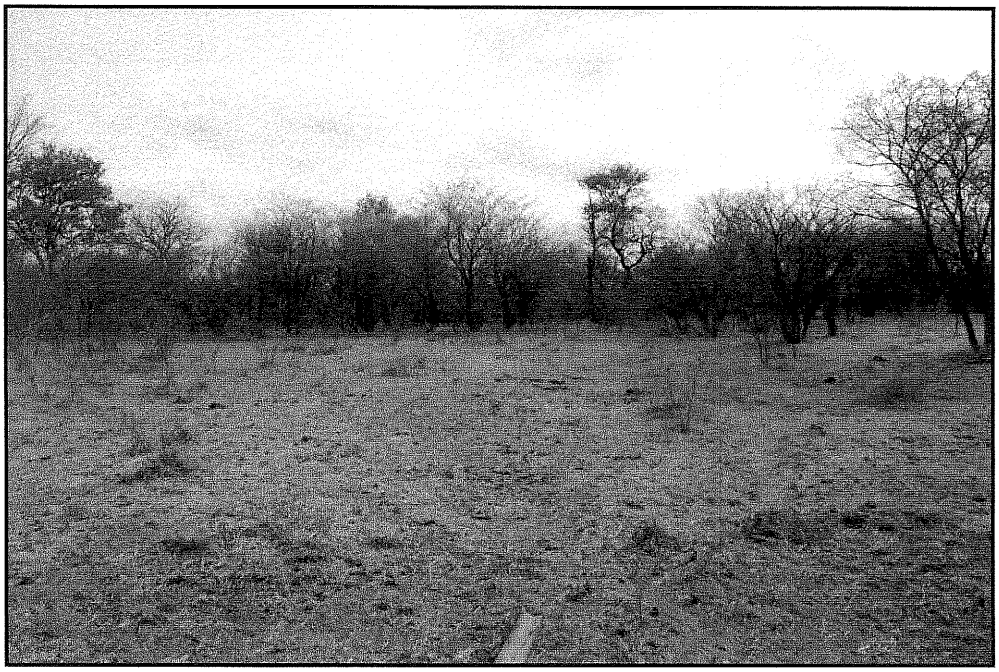

Fig. 3. A view across Site No. 1.

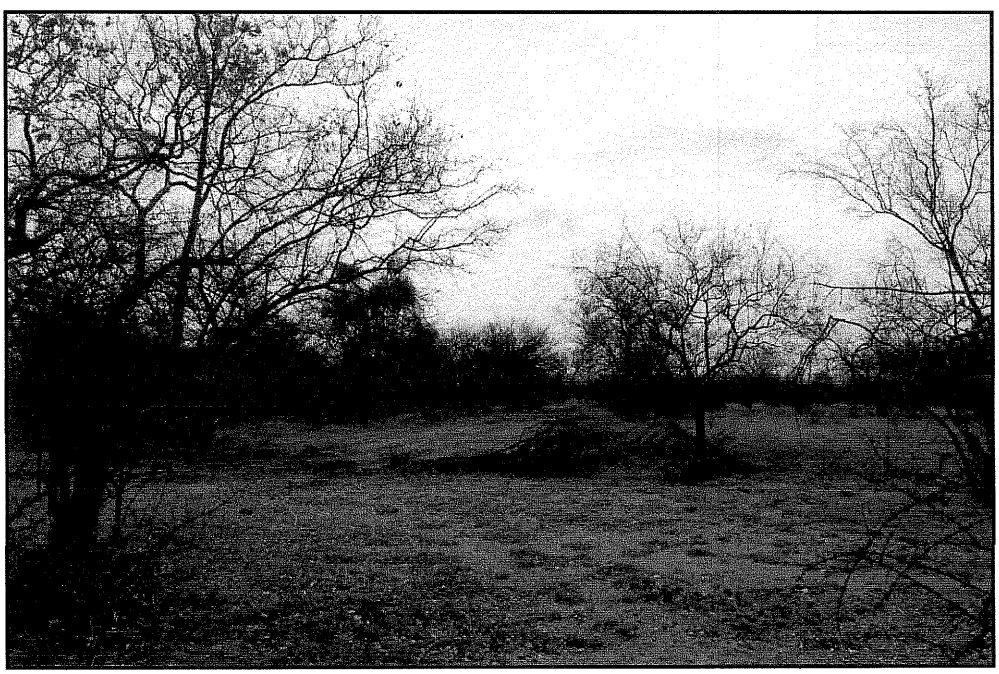

Fig. 4. A view across Site No. 2.

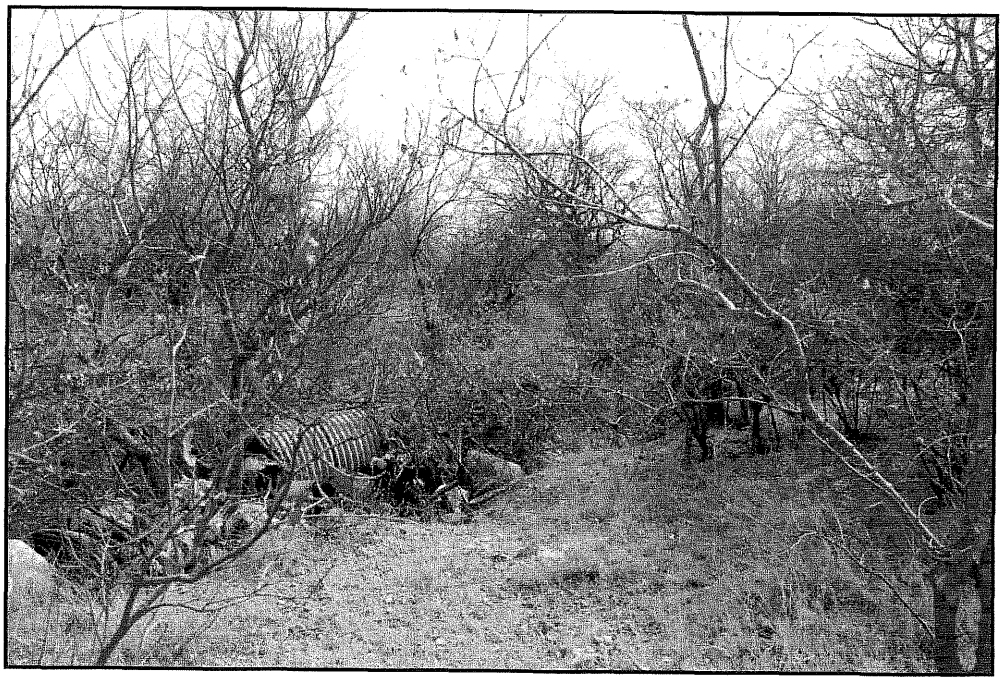

Fig. 5. A view of the trench on Site No. 3.

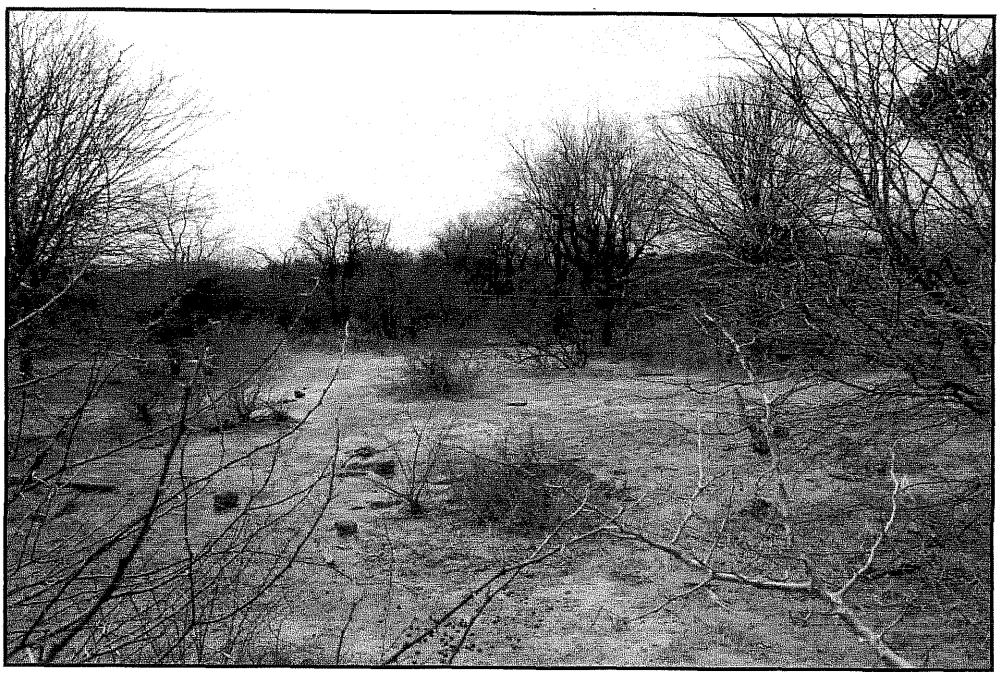

Fig. 6. A view across Site No. 4.