



**SOUTH AFRICAN HERITAGE RESOURCES AGENCY**  
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FOR ATTENTION: **PHRA: Northern Cape**

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SAHRA File No: **9/2/032/0004**  
 Date Received: **29 May 2012** .....  
 Date of Comment: **28 June 2012** .....  
 Sent to Peer Review: .....  
 Date to Peer Review: .....  
 SAHRA Contact Person: **Ms Katie Smuts**  
 DEA Ref. no: **E/12/12/20/2518**

## **REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEOLOGICAL IMPACT ASSESSMENTS**

**BY ARCHAEOLOGY, PALAEOLOGY AND METEORITES UNIT OF THE SOUTH AFRICAN HERITAGE  
 RESOURCES AGENCY**

*South Africa has a unique and non-renewable archaeological and palaeontological heritage. Archaeological and palaeontological sites are protected in terms of the National Heritage Resources Act (Act No 25 of 1999) and may not be disturbed without a permit. Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs) identify and assess the significance of the sites, assess the potential impact of developments upon such sites, and make recommendations concerning mitigation and management of these sites. On the basis of satisfactory specialist reports SAHRA or the relevant heritage resources agency can assess whether or not it has objection to a development and indicate the conditions upon which such development might proceed and assess whether or not to issue permission to destroy such sites.*

*AIAs and PIAs often form part of the heritage component of an Environmental Impact Assessment or Environmental Management Plan. They may also form part of a Heritage Impact Assessment called for in terms of section 38 of the National Heritage Resources Act, Act No. 25, 1999. They may have other origins. In any event they should comply with basic minimum standards of reporting as indicated in SAHRA Regulations and Guidelines.*

*This form provides review comment from the Archaeologist of the relevant heritage resources authority for use by Heritage Managers, for example, when informing authorities that have applied to SAHRA for comment and for inclusion in documentation sent to environmental authorities. It may be used in conjunction with Form B, which provides relevant peer review comment.*

- A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: **Northern Cape**.....
- B. AUTHOR(S) OF REPORT: **Mr Jonathan Kaplan**
- C. ARCHAEOLOGY CONTRACT GROUP: **Agency for Cultural Resource Management**
- D. CONTACT DETAILS: **5 Stuart Rd, Rondebosch, Tel: 021 685 7589,**  
**Cell: 082 321 0172, acrm@waccess.co.za**
- E. DATE OF REPORT: **March 2012**
- F. TITLE OF REPORT: **ARCHAEOLOGICAL IMPACT ASSESSMENT – THE  
 PROPOSED KEREN ENERGY KEIMOES SOLAR FARM ON ERF 666 KEIMOES  
 NORTHERN CAPE PROVINCE**
- B. AUTHOR(S) OF REPORT: **Dr John Almond**
- C. ARCHAEOLOGY CONTRACT GROUP: **Natura Viva**
- D. CONTACT DETAILS: **PO Box 12410, Mill St, Cape Town, 8010, email:  
 naturaviva@universe.co.za**
- E. DATE OF REPORT: **March 2012**
- F. TITLE OF REPORT: **RECOMMENDED EXEMPTION FROM FURTHER  
 PALAEOLOGICAL STUDIES AND MITIGATION: PROPOSED KEREN**

**ENERGY KEIMoes SOLAR PLANT ON ERF 666 KEIMoes, KAI GARIB MUNICIPALITY, NORTHERN CAPE**

- G. Please circle as relevant: Archaeological and Palaeontological components of EIA / EMP / HIA / CMP/ Other (Specify) **FINAL BAR** .....
  - H. REPORT COMMISSIONED BY (**CONSULTANT** OR DEVELOPER): **Enviro Africa, Ms Ceruschia Venter**
  - I. CONTACT DETAILS: **Enviro Africa, P.O. Box 5367, Helderberg 7135 email admin@enviroafrica.co.za**
  - J. COMMENTS: .....
- Please see comment on next page .....*

## **REVIEW COMMENT ON HERITAGE IMPACT ASSESSMENT (ARCHAEOLOGICAL AND PALAEOLOGICAL COMPONENTS)**

**Mr J. Kaplan**

**Dated: March 2012, Received: May 2012**

### **ARCHAEOLOGICAL IMPACT ASSESSMENT – THE PROPOSED KEREN ENERGY KEIMOES SOLAR FARM ON ERF 666 KEIMOES NORTHERN CAPE PROVINCE**

**Dr J. Almond,**

**Dated: March 2012, Received: May 2012**

### **RECOMMENDED EXEMPTION FROM FURTHER PALAEOLOGICAL STUDIES AND MITIGATION: PROPOSED KEREN ENERGY KEIMOES SOLAR PLANT ON ERF 666 KEIMOES, KAI GARIB MUNICIPALITY, NORTHERN CAPE**

#### **INTRODUCTION**

Keren Energy Keimoes (Pty) Ltd has proposed the development of a 10 MW Concentrating Photovoltaic (CPV) solar energy facility that will occupy 20 ha of Erf 666, Keimoes in the Northern Cape Province.

The facility will consist of an array of 140 CPV units, each mounted on a 6m high pedestal drilled and set in the ground. The footings will be approximately 1.5m in diameter. Additional infrastructure will include two to four concrete transformer pads; a fenced construction staging area; a maintenance shed and switch panel for connection to the ESKOM grid. An existing access road will be utilised and a perimeter fire access road will be created.

The proposed site is fairly flat, sloping slightly to the south. The site is rocky with sparse vegetation and occasional trees; several drainage channels transect the site. There is an Eskom substation to the south-west of the site and a large fruit packing shed to the east, with water works nearby.

#### **DISCUSSION AND RECOMMENDATIONS**

The archaeologist notes that little work has been done in the Keimoes area, although finds from the Early, Middle and Later Stone Age are known in the region, particularly from work done in the Augrabies area.

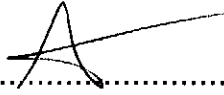
The field survey recorded more than 100 stone artefacts. Most of these artefacts were Later Stone Age items, predominantly on banded ironstone, with some on indurated shale and quartzite. Several of the finds were Middle Stone Age in origin, with only two Early Stone Age artefacts encountered: a large biface and a handaxe. Most of the tools were flakes, flake blades and chunks, many with evidence for utilisation or retouch. Formal retouched tools were rare, but included several scrapers. While there was no indication of any factory or settlement sites, artefacts tended to cluster around the south western part of the proposed development footprint, near the Eskom servitude.

The palaeontologist notes that the study area is largely underlain by metamorphic Precambrian basement rocks of the Namaqua-Natal Province, which are entirely unfossiliferous. These deposits are mantled by coarse to fine-grained superficial deposits which are young (Quaternary to Recent Age) and of low to very low palaeontological significance. Some of these deposits might be covered with fine-grained wind-blown sands of the Gordonia Formation, which are young and largely unfossiliferous. The palaeontologist regards it as unlikely that the highly fossiliferous Orange River alluvial gravels will be found on the site due to its elevation above and distance from the river. The palaeontologist notes that the small foundations of the CPV panels are unlikely to have a substantial impact on palaeontological resources.

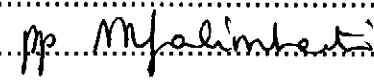
**SAHRA RECOMMENDATIONS AND CONCLUSION**

Since the archaeological material identified on site is of low significance and will not be greatly affected by the development of the CPV solar energy facility, the SAHRA Archaeology, Palaeontology and Meteorites Unit has no objection to the development (in terms of the archaeological and palaeontological components of the heritage resources) on condition that, if any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA (Katie Smuts / Colette Scheermeyer, 021 462 4502) and an archaeologist and/or palaeontologist, depending on the nature of the finds, must be alerted immediately.

Decisions on Built Environment and associated Living Heritage must be made by the Provincial Heritage Resources Authority of the Northern Cape (Mr. Andrew Timothy, ratha.timothy@gmail.com) to whom this Archaeological Review Comment will be copied.

SIGNATURE OF ARCHAEOLOGIST PROCESSING REPORT: .....  .....

EMAIL: ksmuts@sahra.org.za.....

SIGNATURE OF SAHRA HEAD ARCHAEOLOGIST: .....  .....

EMAIL: cscheermeyer@sahra.org.za .....

NAME OF HERITAGE RESOURCES AGENCY: SAHRA.....

**PLEASE NOTE THAT THE COMMENT (ABOVE OR APPENDED) CONSTITUTES THE COMMENT OF THE HERITAGE RESOURCES AGENCY ARCHAEOLOGIST AND THAT ANY DEVELOPMENT THAT INVOLVES DESTRUCTION OF ANY ARCHAEOLOGICAL/PALAEONTOLOGICAL SITE IS STILL SUBJECT TO A PERMIT/PERMISSION FOR DESTRUCTION OF SUCH SITE GIVEN TO THE DEVELOPER BY THE RELEVANT HERITAGE RESOURCES AGENCY ARCHAEOLOGICAL AND PALAEONTOLOGICAL PERMIT COMMITTEE (THIS WILL BE SUBJECT TO APPROVAL OF THE PHASE 2 OR ARCHAEOLOGICAL/ PALAEONTOLOGICAL MITIGATION AS NECESSARY). THIS REPORT MAY BE TAKEN ONLY AS APPROVAL IN TERMS OF SECTION 35 OF THE NATIONAL HERITAGE RESOURCES ACT. THE PROVINCIAL MANAGER OF THE HERITAGE RESOURCES AUTHORITY MUST ADVISE AS TO APPROVAL IN TERMS OF HERITAGE ISSUES ENCOMPASSED BY OTHER ASPECTS OF THE LEGISLATION, SUCH AS ISSUES OF THE BUILT ENVIRONMENT (STRUCTURES (E.G. FARM HOUSES), OVER 60 YEARS), INDIGENOUS KNOWLEDGE SYSTEMS OR OF CULTURAL LANDSCAPES AS THIS IS NOT WITHIN THE SCOPE OF THE ARCHAEOLOGIST.**

**PLEASE NOTE THAT SAHRA IS NOW RESPONSIBLE FOR GRADE I HERITAGE RESOURCES (AND EXPORT) AND THE PROVINCIAL HERITAGE RESOURCES ARE RESPONSIBLE FOR GRADE II AND GRADE III HERITAGE RESOURCES, EXCEPT WHERE THERE IS AN AGENCY ARRANGEMENT WITH THE PROVINCIAL HERITAGE RESOURCES AUTHORITY.**