
**Cultural Resources Management Impact Assessment:
(PORTIONS OF) LEEUW POORT 161;
KIMBERLEY DISTRICT, NORTHERN CAPE, SOUTH AFRICA**

2005-09-06



McGREGOR MUSEUM, KIMBERLEY

Our Ref: 2824CC 2005.003

DME Ref: NC 30/5/11/3/2/1/137 EM
SAHRA Ref: 9/2/049/0001

**Cultural Resources Management Impact Assessment:
(PORTIONS OF) LEEUW POORT 161,
KIMBERLEY DISTRICT, NORTHERN CAPE, SOUTH AFRICA**

REPORT TO –

GERT DU TOIT
BONAMI MINING
Tel: 082 787 6024; Fax: (053) 842 0276; P.O. Box 536, Kimberley, 8300

ATTENTION –

MARY LESLIE
SOUTH AFRICAN HERITAGE RESOURCES AGENCY (SAHRA)
Tel: (021) 462 4502; Fax: (021) 462 4509; P.O. Box 4637, Cape Town, 8000; E-mail: mleslie@sahra.org.za

PREPARED BY –

KAREN VAN RYNEVELD
McGREGOR MUSEUM, ARCHAEOLOGY DEPARTMENT, CRM UNIT
Tel: (053) 839 2700; Fax: (053) 842 1433; P.O. Box 316, Kimberley, 8300; E-mail: karen@museumsnc.co.za

Contents

- 1) PROJECT BRIEF
- 2) THE CRM ASSESSMENT
 - o PROPERTY DESCRIPTION
 - o DEVELOPMENT IMPACT
 - o CRM ASSESSMENT METHODOLOGY
 - o CRM ASSESSMENT FINDINGS
 - i. EXISTING ACCESS ROADS
 - ii. PROPOSED DEVELOPMENT AREA LWP1
 - iii. PROPOSED DEVELOPMENT AREA LWP2
- 3) IMAGE GALLERY
- 4) CONCLUSION
- 5) RECOMMENDATIONS
 - o ACCESS ROADS
 - o PROPOSED DEVELOPMENT AREA LWP1
 - o PROPOSED DEVELOPMENT AREA LWP2
- 6) ACKNOWLEDGEMENTS
- 7) APPENDIX 1:
SCHEMATIC OUTLINE of the PRE-HISTORIC and HISTORIC PERIODS
- 8) APPENDIX 2:
EXTRACTS from the NATIONAL HERITAGE RESOURCES ACT (No 25 of 1999)

1) Project Brief

The McGregor Museum CRM Unit was contracted by the developer, Bonami Mining, to conduct a Phase 1 Cultural Resources Management (CRM) impact assessment. The impact assessment was requested in compliance with prospecting and mining permit / right environmental requirements as set out in the Mineral and Petroleum Resources Development Act (MPRDA), No 28 of 2002, represented by the Department of Minerals and Energy (DME), the particulars of which are described in the National Environmental Management Act (NEMA), No 107 of 1998, represented by the Department of Environmental Affairs & Tourism (DEAT) and the National Heritage Resources Act (NHRA), No 25 of 1999, represented by the South African Heritage Resources Agency (SAHRA).

This document reports on the findings of the CRM assessment.

2) The CRM Assessment

PROPERTY DESCRIPTION:

The proposed localised prospecting and mining development is situated on two identified areas on the property known as Leeuw Poort 161 in the Kimberley District of the Northern Cape, South Africa (1:50,000 map reference: 2824CC Uitkyk).

DEVELOPMENT IMPACT:

Proposed development, core prospecting with the intent to mine, will impact on two areas of approximately 550 ha (LWP1 = 100 ha; LWP2 = 450ha).

Existing access roads to the proposed development areas are currently used for farming activities. Access to the southern portion of the farm is via a public road leading to the farm Landzigt (Landsig).

Core prospecting will directly impact on a number of areas ($\leq 30 \times 30$ cm) at initial intervals of approximately $\geq 100 \times 100$ m. Secondary coring intervals will decrease, subject to core analysis. One pick-up (bakkie) and a compressor (with trailer) will be used to conduct core prospecting. Impact throughout core prospecting will thus be limited.

The aim of prospecting activities is to define future mining management. Mining is expected to impact on the total of the two development areas. Mechanised mining equipment will be used and will result in the total loss of surface and subsurface context of cultural material.

CRM ASSESSMENT METHODOLOGY:

One McGregor Museum CRM Unit staff member, accompanied by Gert du Toit (Bonami Mining), visited the site on 2005-08-23, 31 and 2005-09-01. The assessment was limited to a Phase 1 surface survey. No excavation or subsurface testing was done since a permit from SAHRA is required to do so. GPS co-ordinates were taken with a Garmin e-trex vista GPS (5-8 m error margin). Photographic documentation was done with a Casio exilim EX-S2 camera.

The assessment covered:

- i. Existing access roads to the two proposed development areas;
- ii. Proposed development area LWP1; and
- iii. Proposed development area LWP2.

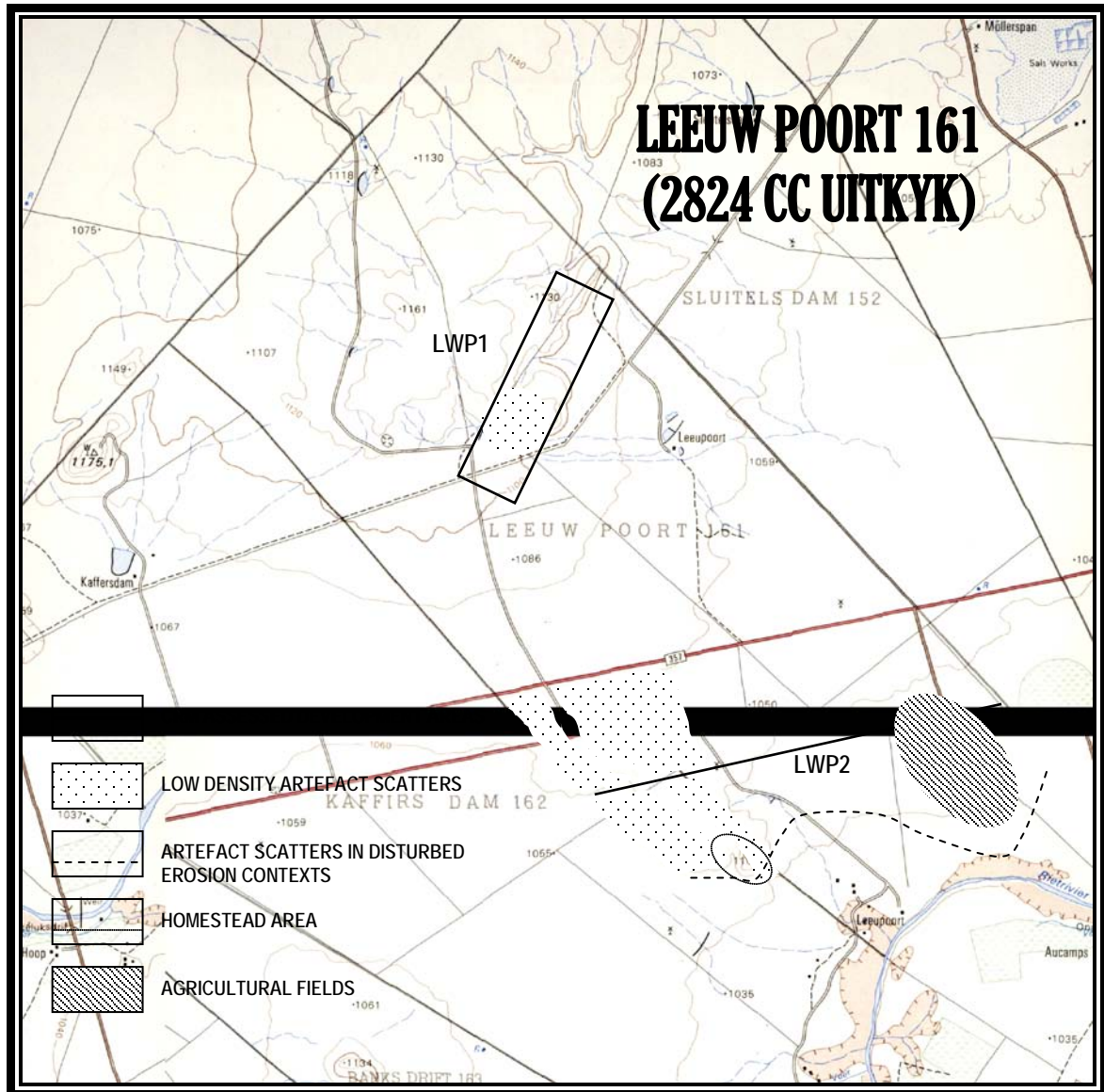
In accordance with current legislation no development had started prior to the CRM impact assessment.

CRM ASSESSMENT FINDINGS:

i EXISTING ACCESS ROADS:

Access to proposed development areas LWP1 and LWP2 is via existing farm (and public) roads. Access roads to the proposed development area exceed 300m and will form an integral part of the mining area; impact thereon or any alteration thereto is covered by the MPRDA (2002), NEMA (1998) and the NHRA (1999).

No cultural heritage resources as defined in the NHRA (1999) were identified during assessment of the access road options. Increased traffic on access roads due to the development may well necessitate the broadening of the roads, an activity that will not impact on any identified cultural heritage resources.



MAP 1: LEEUW POORT 161
 Extract of the 1:50,000 map 2824CC Uitkyk, indicating the position of the two proposed localised development areas (LWP1 and LWP2).

ii PROPOSED DEVELOPMENT AREA LWP1:

Proposed development will impact on a ≤ 100 ha area. Impact on the area or any alteration thereto is covered by environmental requirements as set out in the MPRDA (2002), the NEMA (1998) and the NHRA (1999).

Assessment of the area was limited to a surface survey. No open sections or erosion gullies was present to assess possible subsurface cultural contexts.

In the south western part of the development area, an area with a low density of artefact scatters was identified (density ratio of $\leq 1:49$; artefacts: m^2 surface area), in a disturbed Hutton sand context. Six localities within this general area have been recorded. Observed artefacts can typologically be assigned to the later Middle Stone Age (MSA) and/or the macrolithic Later Stone Age (LSA).

Low density of artefacts in a disturbed Hutton sand context would not be conducive to further scientific study. The artefact scatter does not comprise a 'site' as defined and protected by the NHRA (1999) and I would recommend that development in this area proceeds as applied for without the developer having to apply for a 'Site Destruction Permit' from SAHRA.

No cultural heritage resources as defined in the NHRA (1999) were identified on the remainder of the proposed development area.

iii PROPOSED DEVELOPMENT AREA LWP2:

The proposed development area comprises an area of ≤450 ha; any alteration thereto is covered by environmental requirements as set out in the MPRDA (2002), the NEMA (1998) and the NHRA (1999).

Assessment of the area focussed on a surface survey. Subsurface stratigraphic information was obtained from 2 quarry pits (≤20 x 20 x 2 m) and large scale erosion gullies along the riverfront.

On the basis of surface soil coverage and land use the general area can be divided into five sections namely:

- 1) The riverfront area, characterised by large erosion gullies and fluvial silt deposits;
- 2) The homestead area;
- 3) The shale outcrops toward the eastern side of the farm section;
- 4) The remainder of the farm section, characterised by Hutton sand dunes; and
- 5) Modern agricultural fields situated within the Hutton sand area.

1) THE RIVERFRONT AREA

The riverfront area is characterised by large erosion gullies and fluvial silt deposits. Assessment of this area points to active past cultural activity. However past flooding have destroyed the context of artefacts and have resulted in large scale erosion gullies of up to 4 m in places. Gully sections provided stratigraphic context; stratigraphic information was limited and no identifiable cultural horizon could be identified from the number of localities inspected.

In total eleven find spots (LWP2.fs1-11) were recorded in the area. However, the general scatter of artefacts exceeds the number of recorded find spots. Recorded find spots generally comprise of a relatively dense scatter of stone artefacts. Typologically artefacts can be ascribed to the later MSA or macrolithic LSA. Macrolithic LSA artefacts in the area quantitatively exceed the number of macrolithic-like artefacts observed in the low density artefact scatter area of LWP1, implying greater LSA activity along the riverfront area. Find spots are concentrated in the south eastern part of the riverfront section, with only one find spot located and recorded towards the south western part.

Recorded find spots are situated in disturbed fluvial deposit contexts. Typological categories cross-cutting technological periods are extremely mixed, seemingly limited to the surface and evidently eroded or washed into their current position. A number of these find spots however warrant specific mention:

LWP2.fs4: The find spot consist of a relatively dense scatter of typologically mixed (MSA and LSA) stone artefacts (10 x 10 m) seemingly washed into the area by a small stream from a once higher area, now a large, but relatively shallow (+/- 2 m deep) erosion gully. The existing find spot is thus situated higher than the area from where artefacts could have been washed in, however multiple periods of fluvial disturbance should be considered.

Surface finds were limited to a number of stone artefacts and one small ceramic fragment. The fragment is thin and appears to be grid tempered. The presence of this small sherd may well be indicative of LSA with ceramic period presence (latter part of the LSA); alternatively it may point toward pastoralist presence in the area.

LWP2.fs5: The site comprises of a medium density mixed stone (MSA and LSA) and historical surface scatter (20 x 20 m). Historical artefacts include glass, porcelain, earthenware and metal. Thick bottle glass fragments in mostly green and some blue were complimented by a number of broken porcelain pieces, some of which displayed printed decoration. Earthenware included a number of broken pieces as well as an almost complete small ink bottle. Metal comprised of a number of old cans, tins, a belt buckle, a curved nail (for attaching a horseshoe) and a number of other pieces.

Historical artefacts were deposited on the eroded dunes (on which the Stone Age artefacts were found). No subsurface deposit seems to be present. The small number of artefacts observed points toward a single / limited site visit(s).

LWP2.fs9: Mixed Stone (MSA and LSA) and historical surface scatter. Historical artefacts include predominantly porcelain crockery pieces, displaying printed decoration. The remains may well be the result of past limited dumping activities. The find spot is located close to two small quarry pits (20 x 20 x 2 m) situated at approximately S 28°57'24.2" and E 24°13'18.2" and in close proximity to the apparent site of the first homestead, now marked by very limited remains of some building rubble (red clay brick).

2) THE HOMESTEAD AREA

SITE LWP2.G1: The formal grave site consists of approximately 18 graves, situated at S 28°57'39.3"; E 24°12'56.8".

The majority of the graves are marked simply by piled stones. A number of grave markers include traditional Tswana stone head and footstones. One inferred later grave is marked by a formal cement headstone. The inscription of the headstone reads '*Our dear grandmother Mrs Elsie Stenekamp was died 1949. She was 99.*' The grave, inferred to be one of the later graves within the gravesite, due to changing (Tswana ?) tradition is older than 60 years, and by inference other graves would predate the mentioned grave. The grave site thus comprises a cultural heritage site as defined and protected by the NHRA (1999).

The grave site is situated on the locality of a Stone Age site. Typologically surface artefacts observed are representative of the later MSA. Former use of the site for burial purposes impacted negatively on the Stone Age site and artefacts observed on the surface are probably from a partially still in tact subsurface context. Due to the later use of the area as a grave site I would not recommend that any salvage of Stone Age material be attempted at the site.

Human remains older than 60 years as well as traditional burial places are protected by the NHRA (1999). In accordance with the Act I would recommend that the developer –

- Creates a no-go buffer zone of 7-10 m around the grave site. The no-go area should be demarcated by a fence and one entrance / access gate; or
- The developer may decide to exhume the remains in order to proceed with development in the particular area. The process for exhumation are prescribed by SAHRA and inclusive of a public process, exhumation by a qualified ASAPA accredited CRM archaeologist under a permit issued by SAHRA, specialist analysis (as recommended by SAHRA) and reburial in accordance with the public participation process and requirements set by SAHRA; or
- The developer may prefer to initially fence the grave site and at a later point in time plan exhumation and reburial of the remains.

In the event of the developer deciding to exhume remains for development purposes, the appointed archaeology contract should include a component of Stone Age recording and sampling.

SITE LWP2.G2: The fenced, formal grave site consists of 8 graves, situated at S 28°57'32.9; E 24°12'57.4".

Five graves are evidently children's graves. These graves are marked by cement rectangular outlines. Graves were marked with formal headstones; these have however in the interim been removed at a time prior to the property having been in the ownership of the current farm owner and his family.

A double grave is marked by a headstone with the following inscription '*Nicolaas Johannes; 9-4-1907 – 15-2-1982 / Orpa; 5-7-1908 – 9-10-1991; Lukas 6:38: Gee en vir julle sal gegee word; Janse van Rensburg*'. The headstone has fallen over and the farm owner is currently busy with a process of raising and moving it to its original position.

A single grave is marked with a headstone with the following inscription '*Ter gedagtenis aan ons dierbare moeder Martha Magdalena du Plooy; voorheen van Rensburg; Geb. Smith 5 Maart 1868; Oorl 4 Aug 1954; Rus in Vrede*'.

A second single grave with matching headstone carries the inscription '*Ter gedachtenis van Nicolas Johannes Jansen van Rensburg; Geboren de 9 Juli 1866; Overleden de 19 Aug 1915; Waarheen, Pilgrim, waar heen gaat gij T Oog om hoog en hand aan hand*'.

Two of the dated graves are older than 60 years and the majority of the graves within the site may well belong to this category. The site is thus protected by the NHRA (1999).

The site is situated directly north north west (NNW) of the homestead. The site is fenced with a single entrance / access gate. The fence and general terrain is well maintained. Development is not envisioned to impact on the site, the neighbouring homestead or nearby staff housing area. Existing protection and maintenance of the site complies with cultural heritage

requirements as set by the NHRA (1999). I would recommend that protection and maintenance of the site continues as is.

In the event of future development impacting on the site (though not the intent of the current developer), I would recommend that the developer –

- Complies to the human remains exhumation process as prescribed by SAHRA and inclusive of a public process, exhumation by a qualified ASAPA accredited CRM archaeologist under a permit issued by SAHRA, specialist analysis (as recommended by SAHRA) and reburial in accordance with the public participation process and requirements set by SAHRA.

Development section	Recorded sites / findplaces / features	Image nr	Co-ordinates	
			South	East
Access roads	N/A			
Development area LWP1	Recorded locality 1		S 28° 54' 50.6"	E 24° 11' 24.8"
	Recorded locality 2		S 28° 55' 08.8"	E 24° 11' 35.8"
	Recorded locality 3		S 28° 55' 03.1"	E 24° 11' 30.7"
	Recorded locality 4		S 28° 54' 57.9"	E 24° 11' 19.4"
	Recorded locality 5		S 28° 55' 03.9"	E 24° 11' 10.4"
	Recorded locality 6		S 28° 54' 52.4"	E 24° 11' 09.7"
Development area LWP2				
1) Riverfront area	LWP2.fs1		S 28° 57' 26.6"	E 24° 14' 07.0"
	LWP2.fs2		S 28° 57' 31.7"	E 24° 14' 10.0"
	LWP2.fs3	Image 6	S 28° 57' 26.1"	E 24° 14' 03.0"
	LWP2.fs4	Image 7	S 28° 57' 21.8"	E 24° 13' 36.1"
	LWP2.fs5	Image 8 & 9	S 28° 57' 19.1"	E 24° 13' 31.5"
	LWP2.fs6	Image 10	S 28° 57' 19.6"	E 24° 13' 30.1"
	LWP2.fs7	Image 11	S 28° 57' 20.8"	E 24° 13' 29.5"
	LWP2.fs8		S 28° 57' 18.7"	E 24° 13' 25.6"
	LWP2.fs9		S 28° 57' 21.6"	E 24° 13' 23.3"
	LWP2.fs10	Image 12	S 28° 57' 30.8"	E 24° 14' 06.6"
	LWP2.fs11	Image 13	S 28° 57' 40.3"	E 24° 12' 50.6"
	Quarry pits		S 28° 57' 24.2"	E 24° 13' 18.2"
2) Homestead area	Grave site LWP2.G1	Image 14 & 15	S 28° 57' 39.3"	E 24° 12' 56.8"
	Grave site LWP2.G2	Image 16	S 28° 57' 32.9"	E 24° 12' 57.4"
3) Shale outcrops	Recorded locality 1		S 28° 57' 06.4"	E 24° 12' 05.3"
	Recorded locality 2		S 28° 57' 10.8"	E 24° 12' 10.1"
	Recorded locality 3		S 28° 57' 35.0"	E 24° 12' 49.5"
	Recorded locality 4		S 28° 57' 04.7"	E 24° 12' 26.6"
	Recorded locality 5		S 28° 57' 06.5"	E 24° 12' 16.8"
	Stone Age site LWP2.S1		S 28° 56' 54.4"	E 24° 12' 03.3"
4) Hutton sand dunes	N/A			
5) Agricultural fields	N/A			

TABLE 1: GPS co-ordinates of the proposed development areas, identified and associated sites and features

3) SHALE OUTCROPS AREA

The surface area is characterised by bedrock shale exposures (implying no / extremely thin surface cover). Density of surface shale differs; palaeo-streams are thickly laden while shale densities are variable atop the land surface. The shale exposure is at intervals intersected with a number of other geological features most prominently including a number of small haematite and baked shale outcrops.

The shale outcrops formed a visible part of the palaeocultural environment. An extremely low density of surface artefacts are scattered over the general area. Recorded artefacts approached a density ratio of $\leq 1:100$ (artefacts: m² surface area). Shale from the shale outcrops are in general small layered broken pieces, not useful as raw material. Small numbers of shale *debitage* pieces have however been recorded. In certain areas shale were baked to an extent of fulfilling the requirements of a useful raw material as evidenced by the general use of hornfels (baked shale) as raw material of artefacts in the area. The small number of hornfels outcrops and no identified manufacturing sites may imply that the majority of tools were not manufactured in the area but rather brought in.

A number of small haematite outcrops suggests that colorants may have been collected from the area for uses such as body decoration, hafting etc.

The area was probably most readily used as a water source, evidenced by the thickly laden shale palaeoriver and a number of smaller streambeds.

SITE LWP2.S1: The site is situated within the demarcated shale outcrops area at S 28°56'54.4" and E 24°12'03.3". The site is approximately 15 x 15 m in extend, characterised by a relatively dense circular surface scatter of stone artefacts, typologically similar to the range of artefacts observed within the general shale outcrops area. The site may well be indicative of some specific processing activity(ies); the collection consists mainly of artefacts and utilised pieces with very little in the line of production *debitage* (chunks, chips, core reduction pieces etc.)

Despite the fact that proposed development will negatively impact on the site, resulting in total destruction thereof I would not recommend collection or Phase 2 mitigation. The artefact assemblage is the result of a collapsed stratigraphy (multiple techno-complexes combined as a single surface stratigraphic horizon), as evidenced by *fossils directeurs* of both the MSA and macrolithic LSA on site. The site has no potential *in situ* component, it is situated directly on top of the geological basal layered shale deposit, no stratigraphic sequencing or dating would thus be possible.

I would recommend that the developer applies for a site destruction permit from SAHRA prior to destruction of the site.

4 & 5) HUTTON SAND DUNES AND AGRICULTURAL FIELDS AREAS

No artefacts or cultural heritage sites were identified during assessment of the Hutton sand dune area or agricultural fields, situated within the Hutton sands. Development will not impact on our cultural heritage as defined and protected by the NHRA (1999).

3) Image Gallery



IMAGE 1: A large erosion gully of more than 2.5 m deep situated within the riverfront area



IMAGE 2



IMAGE 3



IMAGE 4



IMAGE 5

IMAGE 2-5: Eroded land surfaces from the riverfront area



IMAGE 6: Artefacts from find spot LWP2.fs3



IMAGE 7: Artefacts from find spot LWP2.fs4 (note the thin walled ceramic, grid tempered piece)



IMAGE 8 & 9: Collection of Stone Age and Historical artefacts from find spot LWP2.fs5



IMAGE 10: Artefacts from find spot LWP2.fs6



IMAGE 11: Artefacts from find spot LWP2fs7

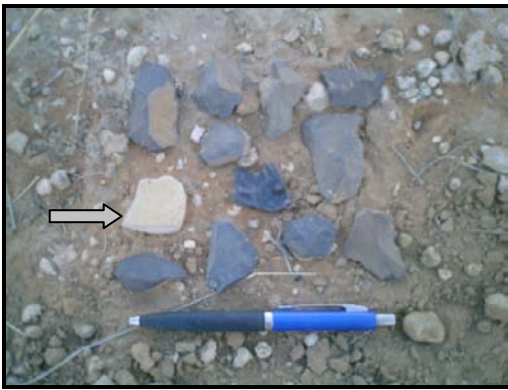


IMAGE 12: Artefacts from find spot LWP2.fs10 (note the earthenware fragment)



IMAGE 13: Artefacts from find spot LWP2.fs11



IMAGE 14: Grave site LWP2.G1 (situated within the homestead area)



IMAGE 15: Inscribed headstone from Grave Site LWP2.G1



IMAGE 16: Grave Site LWP2.G2 (situated within the homestead area)



IMAGE 17: General terrain of the Shale outcrops area



IMAGE 18: Low density surface cover within the Shale outcrops area



IMAGE 19: Two artefacts collected from the surface outcrops area



IMAGE 20: Haematite outcrops within the Shale outcrops area



IMAGE 21: General view over the northern part of development area LWP2: Shale outcrops over to the Hutton sand dunes onto the agricultural fields.

4) Conclusion

DEVELOPMENT AREA LWP1: A low density artefact scatter is present in the south western corner of the development area. Typologically artefacts present a mixed later MSA, macrolithic LSA component.

DEVELOPMENT AREA LWP2: The area bordering the river is characterised by *ex situ* surface scatters of later MSA and macrolithic LSA material, with a very faint Historic component (situated on the same surface). A number of find spots were recorded, implying that the area is culturally sensitive and used to be relatively extensively used in the past. However, artefact concentrations are evidently the result of past erosion and flooding events. Two small quarry pits and large erosion gullies in the area provided for a stratigraphic subsurface inspection of deposits. No stratigraphic cultural horizons could be identified from the number of sections inspected.

Two historical grave sites identified in the vicinity of the present day homestead further testify to historic cultural presence on the property.

The western side of the property is characterised by geologically basal shale outcrops. A general low density artefact scatter (later MSA, macrolithic LSA) is present in the area. The area may well have formed an important part of the palaeocultural environment due to the, now shale laden, palaeoriverbed, a number of smaller streambeds and a few small haematite and baked shale outcrops. A single cultural heritage site was identified in the general shale outcrops area.

No cultural heritage resources were identified in the eastern part of the development area, including the Hutton sand dune area and agricultural fields.

5) Recommendations

i. ACCESS ROADS:

No cultural heritage resources as defined and protected in the NHRA (1999) were identified on, or in the vicinity of proposed access roads to be used for development purposes. Increased traffic on access roads due to the development may well necessitate the broadening of the roads, an activity that will not impact on any identified cultural heritage sites.

RECOMMENDATIONS:

I would recommend that prospecting and mining proceeds as applied for.

ii. PROPOSED DEVELOPMENT AREA LWP1:

A low density artefact scatter is present in the south western region of the proposed development area. The scatter does not comprise a site as defined and protected by the NHRA (1999).

RECOMMENDATIONS:

I would recommend that prospecting and mining in the area proceeds as applied for without the developer having to apply for a 'Site Destruction Permit' from SAHRA.

iii. PROPOSED DEVELOPMENT AREA LWP2:

The riverfront area is characterised by artefact find spots primarily concentrated to the eastern part of the riverfront area. The find spots do not constitute 'sites'. However, their presence testifies to a culturally sensitive area associated with cultural landscapes as defined and protected by the NHRA (1999).

Additionally two historical grave sites (high cultural significance) and one Stone Age site (low cultural significance) was identified.

RECOMMENDATIONS:

- 1) I would recommend that an archaeologist be on site / periodic archaeological site inspections be done, to record possible stratigraphic contexts of artefact scatters during mining operations in the riverfront area. The appointed archaeology contract should ensure that a 'Collections Permit' is obtained from SAHRA prior to development to ensure legal collection of stratigraphically associated artefactual material. An archaeological report should be submitted to both SAHRA and DME.
- 2) HISTORICAL GRAVE SITE LWP2.G1: I would recommend that the developer:
 - o Creates a no-go buffer zone of 7-10 m around the grave site. The no-go area should be demarcated by a fence and one entrance / access gate; or
 - o The developer may decide to exhume the remains in order to proceed with development in the particular area. The process for exhumation are prescribed by SAHRA and inclusive of a public process, exhumation by a qualified ASAPA accredited CRM archaeologist under a permit issued by SAHRA, specialist analysis (as recommended by SAHRA) and reburial in accordance with the public participation process and requirements set by SAHRA; or
 - o The developer may prefer to initially fence the grave site and at a later point in time plan exhumation and reburial of the remains.
 - o In the event of the developer deciding to exhume remains for development purposes, the appointed archaeology contract should include a component of Stone Age recording and sampling.
- 3) HISTORICAL GRAVE SITE LWP2.G2: The site is fenced with a single entrance / access gate. The fence and general terrain is well maintained. Development is not envisioned to impact on the site. Existing protection and maintenance of the site complies with cultural heritage requirements as set by the NHRA (1999). I would recommend that protection and maintenance of the site continues as is.

In the event of future development impacting on the site (though not the intent of the current developer), I would recommend that the developer –

- o Complies to the human remains exhumation process as prescribed by SAHRA and inclusive of a public process, exhumation by a qualified ASAPA accredited CRM archaeologist under a permit issued by SAHRA, specialist analysis (as recommended by SAHRA) and reburial in accordance with the public participation process and requirements set by SAHRA.
- 4) STONE AGE SITE LWP2.S1: The artefact assemblage is the result of a collapsed stratigraphy (multiple techno-complexes combined as a single surface stratigraphic horizon), as evidenced by *fossils directeurs* of both the MSA and macrolithic LSA on site. The site has no potential *in situ* component, it is situated directly on top of the geological basal layered shale deposit, no stratigraphic sequencing or dating would be possible.

I would recommend that the developer applies for a site destruction permit from SAHRA prior to destruction of the site.

6) Acknowledgements

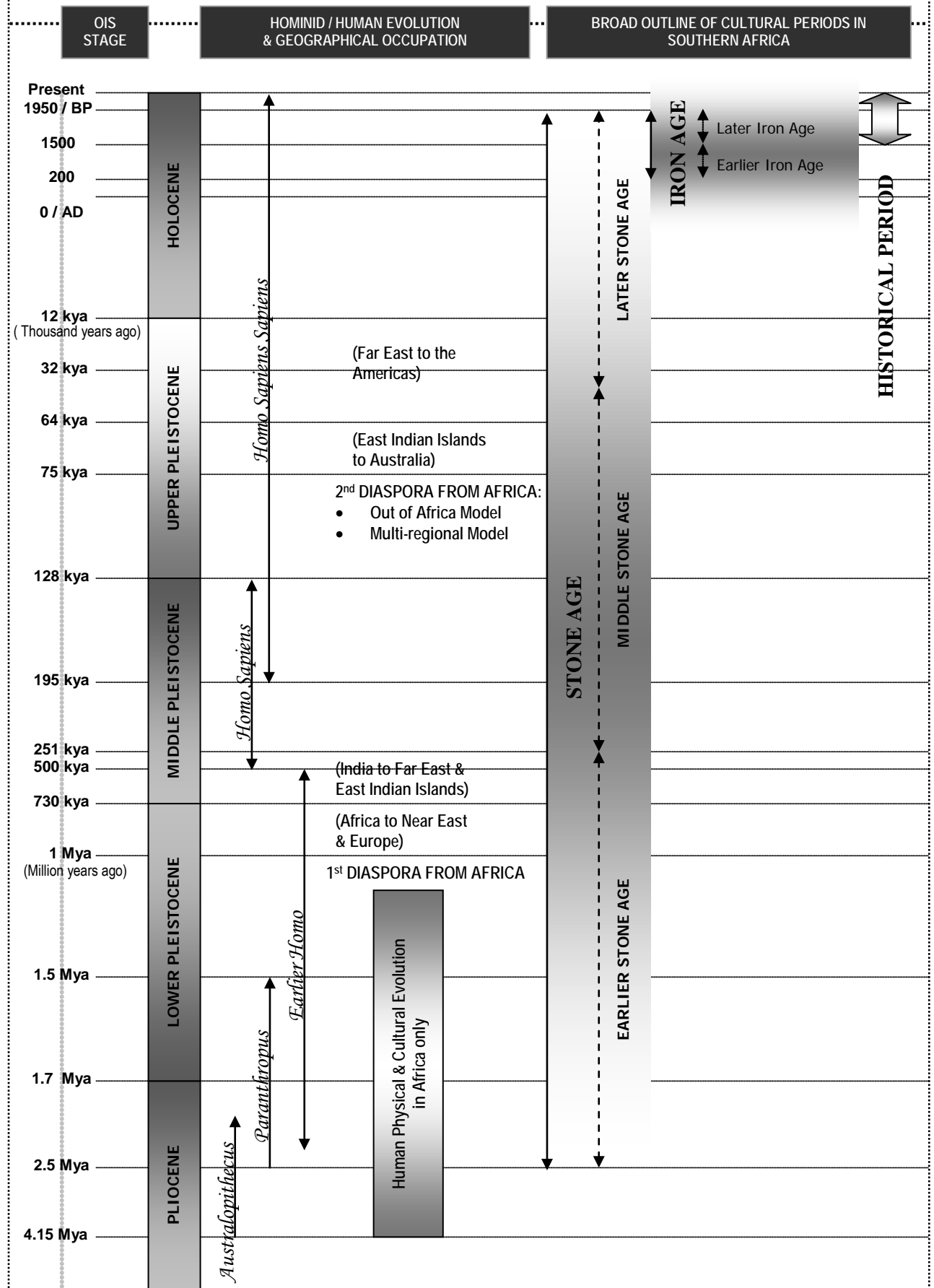
I would like to thank Mr. Gert du Toit (Bonami Mining) for accompanying me to the site and for supplying prospecting, mining and on site information.

NOTE: In accordance with the NHRA (1999), should any cultural heritage site be encountered during the course of development, the developer should immediately cease operation in the vicinity of the site and report the find to SAHRA.

In the event of a lease / sales agreement of the assessed development areas (LWP1, LWP2 and access roads) or any portion thereof, or contractual agreement pertaining thereto, between the developer and another developer, the developer should ensure that compliance to / recommendations regarding the cultural heritage, as a specialist subsection of the environmental management plan / process (EMP), are communicated to the lessee / new owner. A copy of the agreement / communication should be submitted to SAHRA and DME.

McGregor Museum, Department of Archaeology, CRM Unit		
Name	Designation	ASAPA Accreditation
David Morris	Head of Archaeology	Principal Investigator
Karen van Ryneveld	Archaeologist	Field Director

Schematic Outline of the Pre-historic and Historic Periods



National Heritage Resources Act (No 25 of 1999)

DEFINITIONS

Section 2

In this Act, unless the context requires otherwise:

- ii. "*Archaeological*" means –
 - a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
 - b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10 m of such representation;
 - c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, ... and any cargo, debris, or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation.
- viii. "*Development*" means any physical intervention, excavation or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –
 - a) construction, alteration, demolition, removal or change of use of a place or structure at a place;
 - b) carrying out any works on or over or under a place;
 - c) subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
 - d) constructing or putting up for display signs or hoardings;
 - e) any change to the natural or existing condition or topography of land; and
 - f) any removal or destruction of trees, or removal of vegetation or topsoil;
- xiii. "*Grave*" means a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;
- xxi. "*Living heritage*" means the intangible aspects of inherited culture, and may include –
 - a) cultural tradition;
 - b) oral history;
 - c) performance;
 - d) ritual;
 - e) popular memory;
 - f) skills and techniques;
 - g) indigenous knowledge systems; and
 - h) the holistic approach to nature, society and social relationships.
- xxxi. "*Palaeontological*" means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace;
- xli. "*Site*" means any area of land, including land covered by water, and including any structures or objects thereon;
- xliv. "*Structure*" means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith;

NATIONAL ESTATE

Section 3

- 1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- 2) Without limiting the generality of subsection 1), the national estate may include –
 - a) places, buildings, structures and equipment of cultural significance;
 - b) places to which oral traditions are attached or which are associated with living heritage;
 - c) historical settlements and townscapes;
 - d) landscapes and natural features of cultural significance;
 - e) geological sites of scientific or cultural importance
 - f) archaeological and palaeontological sites;
 - g) graves and burial grounds, including –
 - i. ancestral graves;
 - ii. royal graves and graves of traditional leaders;
 - iii. graves of victims of conflict
 - iv. graves of individuals designated by the Minister by notice in the Gazette;
 - v. historical graves and cemeteries; and
 - vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No 65 of 1983)

- h) sites of significance relating to the history of slavery in South Africa;
- i) movable objects, including –
 - i. objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - ii. objects to which oral traditions are attached or which are associated with living heritage;
 - iii. ethnographic art and objects;
 - iv. military objects;
 - v. objects of decorative or fine art;
 - vi. objects of scientific or technological interest; and
 - vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

STRUCTURES

Section 34

- 1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

ARCHAEOLOGY, PALAEOLOGY AND METEORITES

Section 35

- 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 assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- 5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may –
 - a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
 - b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
 - c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph a) to apply for a permit as required in subsection 4); and
 - d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.
- 6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

BURIAL GROUNDS AND GRAVES

Section 36

- 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 of any burial ground or grave referred to in subsection 3a) 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.

- 5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection 3b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority –
 - a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
 - b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.
- 6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority –
 - a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
 - b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-internment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

HERITAGE RESOURCES MANAGEMENT

Section 38

- 1) Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorised as –
 - a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
 - b) the construction of a bridge or similar structure exceeding 50 m in length;
 - c) any development or other activity which will change the character of a site –
 - i. exceeding 5 000 m² in extent; or
 - ii. involving three or more existing erven or subdivisions thereof; or
 - iii. involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
 - iv. the costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - d) the rezoning of a site exceeding 10 000 m² in extent; or
 - e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
 must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- 2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection 1) –
 - a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - b) notify the person concerned that this section does not apply.
- 3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection 2a) ...
- 4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development decide –
 - a) whether or not the development may proceed;
 - b) any limitations or conditions to be applied to the development;
 - c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - e) whether the appointment of specialists is required as a condition of approval of the proposal.

APPOINTMENT AND POWERS OF HERITAGE INSPECTORS

Section 50

- 7) Subject to the provision of any other law, a heritage inspector or any other person authorised by a heritage resources authority in writing, may at all reasonable times enter upon any land or premises for the purpose of inspecting any heritage resource protected in terms of the provisions of this Act, or any other property in respect of which the heritage resources authority is exercising its functions and powers in terms of this Act, and may take photographs, make measurements and sketches and use any other means of recording information necessary for the purposes of this Act.
- 8) A heritage inspector may at any time inspect work being done under a permit issued in terms of this Act and may for that purpose at all reasonable times enter any place protected in terms of this Act.

- 9) Where a heritage inspector has reasonable grounds to suspect that an offence in terms of this Act has been, is being, or is about to be committed, the heritage inspector may with such assistance as he or she thinks necessary –
 - a) enter and search any place, premises, vehicle, vessel or craft, and for that purpose stop and detain any vehicle, vessel or craft, in or on which the heritage inspector believes, on reasonable grounds, there is evidence related to that offence;
 - b) confiscate and detain any heritage resource or evidence concerned with the commission of the offence pending any further order from the responsible heritage resources authority; and
 - c) take such action as is reasonably necessary to prevent the commission of an offence in terms of this Act.
- 10) A heritage inspector may, if there is reason to believe that any work is being done or any action is being taken in contravention of this Act or the conditions of a permit issued in terms of this Act, order the immediate cessation of such work or action pending any further order from the responsible heritage resources authority.