

**A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED CENTANE TO QHOLORA AND KEI RIVER MOUTH ROAD UPGRADE, MNQUMA LOCAL MUNICIPALITY, AMATHOLE DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.**

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## A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE PROPOSED CENTANE TO QHOLORA AND KEI RIVER MOUTH ROAD UPGRADE, MNQUMA LOCAL MUNICIPALITY, AMATHOLE DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.

**Note:** This report follows the minimum standard guidelines required by the South African Heritage Resources Agency for compiling Phase 1 Archaeological Impact Assessment (AIA).

### EXECUTIVE SUMMARY

#### Purpose of the Study

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the upgrade of the gravel road between the village of Centane and Qholora and Kei River Mouth as well as eleven existing borrow pits that occur adjacent to or close to the proposed area situated within the Mquma Local Municipality, Amathole District Municipality, Eastern Cape Province. The survey was conducted to establish the range and importance of the exposed and *in situ* archaeological heritage features, the potential impact of the development and, to make recommendations to minimize possible damage to these sites.

#### Brief Summary of Findings

The proposed road for the upgrade is situated within 20km of the coast to the Qholora and Kei River Mouths. The area has in the past been heavily disturbed by the construction and continuing maintenance of the current gravel road, the construction of houses, fences, underground pipes, telephone and electricity poles, and water drainage areas adjacent to the road. No archaeological material remains or features were observed during the survey.

The proposed area for development is rated as having low local cultural significance. Development may proceed as planned.

#### Recommendations

The area is of a low cultural sensitivity and development may proceed as planned, although the following recommendation must be considered:

1. Although the area has been disturbed it is possible that human remains may be uncovered during construction. If human remains and concentrations of archaeological heritage material are uncovered during construction, all work must cease immediately and be reported to the Albany Museum and/or the South African Heritage Resources

Agency (SAHRA) so that systematic and professional investigation/excavation can be undertaken by a professional archaeologist.

## **BACKGROUND INFORMATION**

The phase 1 archaeological impact assessment (AIA) is a section of the required environmental impact assessment (EIA) study.

### **Developer:**

Eastern Cape Department of Roads and Public Works

### **Consultant:**

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### **Terms of Reference**

To conduct a survey of possible archaeological heritage sites, features and material remains within the area of the proposed road upgrade between Centane and Qholora and Kei River Mouth, Mnquma Local Municipality, Amathole District Municipality, Eastern Cape Province. The survey was conducted to establish the range and importance of the exposed and *in situ* archaeological heritage features, the potential impact of the development and, to make recommendations

### **Brief legislative requirements**

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

### *Archaeology, palaeontology and meteorites*

- 35 (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;
  - (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.

### *Burial grounds and graves*

36. (3) (a) 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.

### *Heritage resources management*

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as -
- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
  - (b) the construction of a bridge or similar structure exceeding 50m in length;
  - (c) any development or other activity which will change the character of the site -
    - (i) exceeding 5000m<sup>2</sup> in extent, or
    - (ii) involving three or more erven or subdivisions thereof; or
    - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
    - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA, or a provincial resources authority;
  - (d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or

*(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as 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.*

## **BRIEF ARCHAEOLOGICAL BACKGROUND**

Little is known about the archaeology of the immediate area proposed for the upgrade and tarring of the road because no systematic field research has been conducted there. Notwithstanding, there are a number of reports, references and accessioned material in museums of the region and nationally which provide us with an archaeological background. This information was compiled R.M. Derricourt during the early 1970's and published in his book, *Prehistoric Man in the Ciskei and Transkei* in 1977. The part of the coast between East London and the Great Kei River is rich in archaeological sites and material.

From the archival information and limited fieldwork, it is evident that the area has an interesting and complex archaeological past. Earlier Stone Age (ESA) handaxes, cleavers and other stone tools, dating to approximately a million or more years old, were mainly documented in the inland areas such as within the districts of Middledrift, Centane, Butterworth, Idutywa and Lusikiki to name a few.

Middle Stone Age (MSA) stone artefacts dating between 200 000 and 30 000 years old can be observed throughout the region, but carry little information because they are not associated with any other archaeological material. Later Stone Age (LSA) open sites, dating to the past 20 000 years are also widely scattered throughout the area as well as the occurrence of shell middens that shows evidence of occupation along the coast.

The most common archaeological sites are shell middens (large piles of marine shell) found usually concentrated opposite rocky coasts (generally referred to as 'Strandloper middens'). These were campsites of San, Khoisan and first-farming communities who lived along the immediate coast and collected marine foods. Mixed with the shell are other food remains and cultural material, human remains also occur within the shell middens. These middens date from the past 8 000 years.

Although no evidence of Early Iron Age (EIA) (first farming communities) sites or material from the Kei River area have been documented, it is possible that such settlements may be present in the wider region (Maggs 1973, Feely 1987). Evidence in the form of thick-walled well-decorated pot sherds are present along other parts of the Transkei coast (Rudner 1968) as is evident from

sites that were excavated at Mpame River Mouth (Cronin 1982) and just west of East London (Nongwaza 1994). Research in the Great Kei River Valley indicates that the first mixed farmers were already settled in the Eastern Cape between A.D. 600 -700 (Binneman 1994).

## References

- Binneman, J. 1994. Preliminary report on the investigations at Kulubele, an Early Iron Age farming settlement in the Great Kei River Valley, Eastern Cape. *Southern African Field Archaeology* 5:28-35.
- Cronin, Radiocarbon dates for the Early Iron Age in the Transkei. *South African Journal of Science* 78: 38-39.
- Derricourt, R.M. 1977. *Prehistoric Man in the Ciskei and Transkei*. Cape Town: C. Struik.
- Feely, J.M. 1987. The Early Farmers of the Transkei, southern Africa. *BAR International Series* No. 378.
- Maggs, T. 1973. The NC3 Iron Age tradition. *South African Journal Science* 69:325-326.
- Mostert, N. 1992. *Frontiers: the epic of South Africa's creation and the tragedy of the Xhosa people*. London: Pimlico.
- Rudner, J. 1968. Strandloper pottery from South and South West Africa. *Annals of the South African Museum* 49:441-663.

## Museum/University databases and collections

The Albany Museum in Grahamstown houses some collections and information from the region.

## Relevant impact assessments

- Binneman, J. 2011. A Phase 1 Archaeological Impact Assessment for the proposed Low Cost Housing Development at iCwili Settlement near Kei River Mouth Town, Gret Kei River Local Municipality, Amathole District Municipality, Eastern Cape Province. Prepared for Ages (Pty) Ltd, East London.
- Binneman, J. & Booth, C. 2008. A Phase 1 Archaeological Impact Assessment: the proposed Kei Beach Hotel and Apartment Development, Erven 160, 161, 162 and 163, Kei River, Amathole District Municipality, Eastern Cape Province. Prepared for Arcus Gibb Engineering and Science, East London.

## DESCRIPTION OF THE PROPERTY

### Area Surveyed

#### Map

1:50 000 CB & CD Kei Mouth (Map 1)

#### Location Data

The proposed road upgrade is situated between the villages of Centane and Qholora and the Kei River Mouth, Mngquma Local Municipality, Amathole District Municipality, Eastern Cape Province, which stretches between the coast and 20km inland. Eight out of the eleven existing borrow pits are situated on the road between Centane and the turn-off to the Pont at the Kei River Mouth, the three remaining borrow pits are situated along the road from the turn-off to the Pont at the Kei River Mouth and the Kei River Mouth.

## ARCHAEOLOGICAL INVESTIGATION

### Methodology

The area was surveyed by three people conducting spot checks from a vehicle and then investigating the surrounding area of the road proposed for the upgrade and tarring as well the areas surrounding the existing borrow pits to be extended and used as materials for the proposed development. GPS readings were taken using a Garmin Oregon 550 and plotted on to a Google Earth map (Map 2). Most of the area adjacent to the road has in the past been heavily disturbed by the construction and continuing maintenance of the current gravel road, the construction of houses, fences, underground pipes, telephone and electricity poles, and water drainage areas adjacent to the road (Figs 1-6).



Figs 1-2. Various examples of disturbances occurring along the proposed road for upgrade and tarring.





Figs 3-6. Various examples of disturbances occurring along the proposed road for upgrade and tarring.

Most of the proposed area is covered in thick dense grass vegetation and within some area thick indigenous bush adjacent to the road. This made archaeological visibility difficult, although the open, exposed and disturbed areas were investigated for possible archaeological remains (Figs 7-8).



Figs 7-8. Thick dense vegetation occurring adjacent to the road proposed for upgrading and tarring.

Two stone-packed features resembling *isisivane* were observed near Borrow Pit 2 (BP2). The first one was situated behind BP2 in the undisturbed area and the second feature was situated about 50m to the south-east of BP2 and approximately 10m from the road proposed for upgrading and tarring (Figs 9-10). The stones used to make up these features have been taken from the existing BP2. It is, however, unlikely that these stone features may be archaeological and are rocks that have been collected from the borrow pits and stacked.



Figs 9-10. Examples of the packed rocks collected from the nearby borrow pit.

Borrow pits 1-8 are situated adjacent to or close to the proposed road for upgrade and tarring between Centane and the turn-off to the Pont at Kei River Mouth. Borrow pits 9-11 are situated adjacent to the road between the turn-off and the Pont at Kei River Mouth.

The areas within and surrounding the existing borrow pits were investigated for possible archaeological remains and features; however no archaeological sites features and remains were encountered. Borrow pits 9-11 are situated with the 5km sensitive coastal zone where it is generally considered that a higher occurrence of shell middens with archaeological debris may occur. However, no fragments or dense accumulations of marine shell were encountered within or surrounding the areas of the existing borrow pits 9-11.

No archaeological sites, features or material remains were encountered within the area proposed for the road upgrade and extension of the eleven existing borrow pits. Therefore, development may proceed as planned.

## RECOMMENDATIONS

The area is of a low cultural sensitivity and development may proceed as planned, although the following recommendation must be considered:

1. Although the area has been disturbed it is possible that human remains may be uncovered during construction. If human remains and concentrations of archaeological heritage material are uncovered during construction, all work must cease immediately and be reported to the Albany Museum and/or the South African Heritage Resources Agency (SAHRA) so that systematic and professional investigation/excavation can be undertaken by a professional archaeologist.

## GENERAL REMARKS AND CONDITION

**Note:** This report is a phase 1 archaeological impact assessment/investigation **only** and does not include or exempt other required heritage impact assessments (see below).

The National Heritage Resources Act No. 25 of 1999, section 35, requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is , all places or objects of aesthetics, architectural, historic, scientific, social, spiritual, linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage , historical settlements, landscapes, geological sites, palaeontological sites and objects.

It must be emphasized that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/features and may not, therefore, reflect the true state of affairs. Many sites/features may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed. The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Resources Act No. 25 of 1999.

It must also be clear that Archaeological Specialist Reports (AIA's) will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

## APPENDIX A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM THE SURROUNDING COASTAL AND INLAND AREAS: guidelines and procedures for developers

### 1. Identification of Iron Age archaeological features and material

- Upper and lower grindstones, broken or complete. Upper grindstone/rubber will be pitted.
- Circular hollows -sunken soil, would indicate storage pits and often associated with grindstones.
- Ash heaps, called middens with cultural remains and food waste such as bone.
- Khaki green soils would indicate kraal areas.
- Baked clay/soil blocks with or without pole impressions marks indicate hut structures.
- Decorated and undecorated pots sherds.
- Iron slag and/or blowpipes indicate iron working.
- Human remains may also be associated with khaki green soils.
- Metal objects and ornaments.

### 2. Shell middens

Shell middens can be defined as an accumulation of marine shell deposited by human agents rather than the result of marine activity. The shells are concentrated in a specific locality above the high-water mark and frequently contain stone tools, pottery, bone and occasionally also human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m<sup>2</sup> in extent, should be reported to an archaeologist.

### 3. Human skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping or in ceramic pots. Developers are requested to be on alert for these features and remains.

#### 4. Fossil bone

Fossil bones may be found embedded in deposits at the sites. Any concentrations of bones, whether fossilized or not, should be reported.

#### 5. Stone artefacts

These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been disturbed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologist notified.

#### 6. Stone features and platforms

These occur in different forms and sizes, but easily identifiable. The most common are an accumulation of roughly circular fire cracked stones tightly spaced and filled in with charcoal and marine shell. They are usually 1-2m in diameter and may represent cooking platforms for shell fish. Others may resemble circular single row cobble stone markers. These occur in different sizes and may be the remains of wind breaks or cooking shelters.

#### 7. Large stone cairns

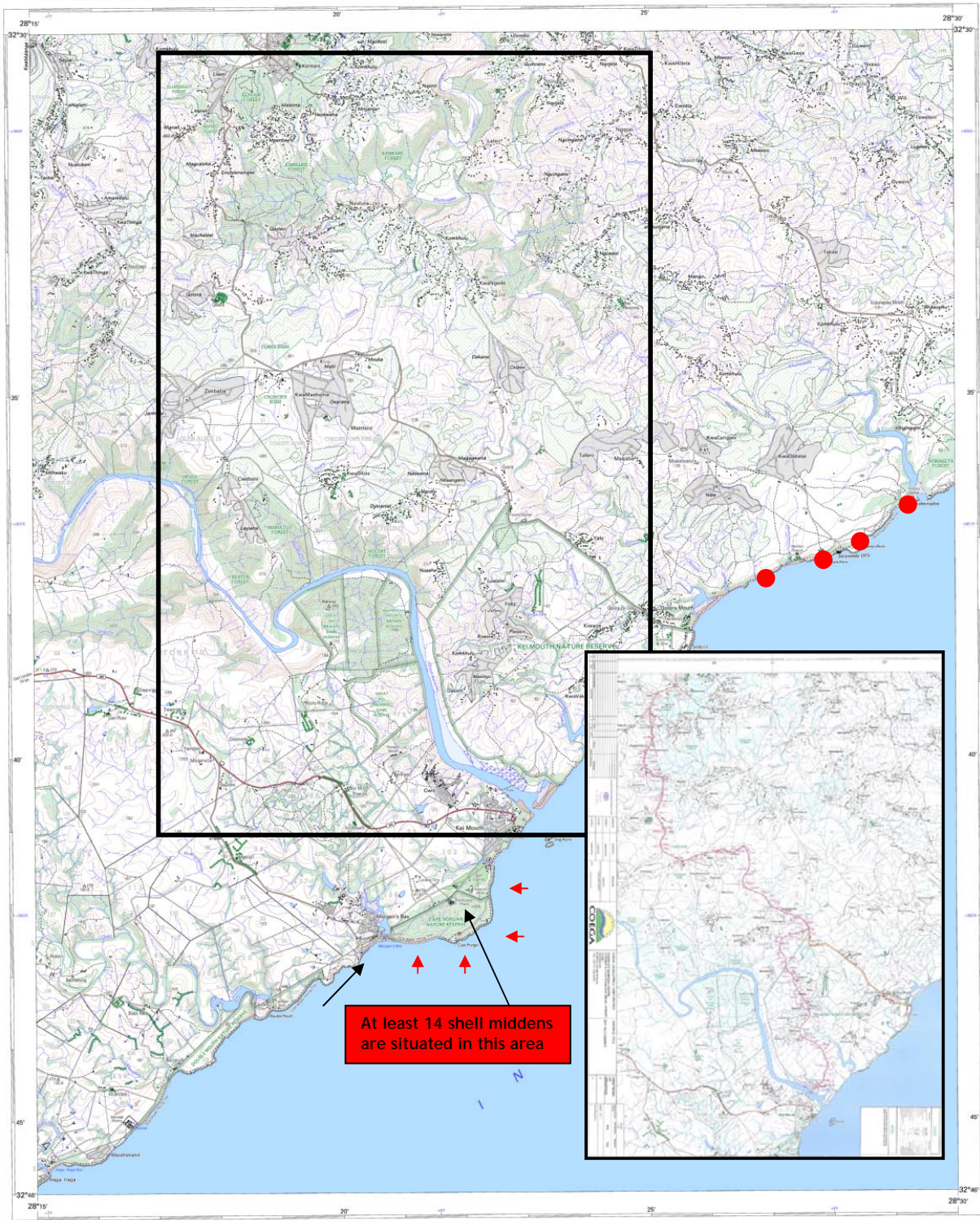
The most common cairns consist of large piles of stones of different sizes and heights are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning is not fully understood, however, some are thought to represent burial cairns while others may have symbolic value.

#### 8. Historical artefacts or features

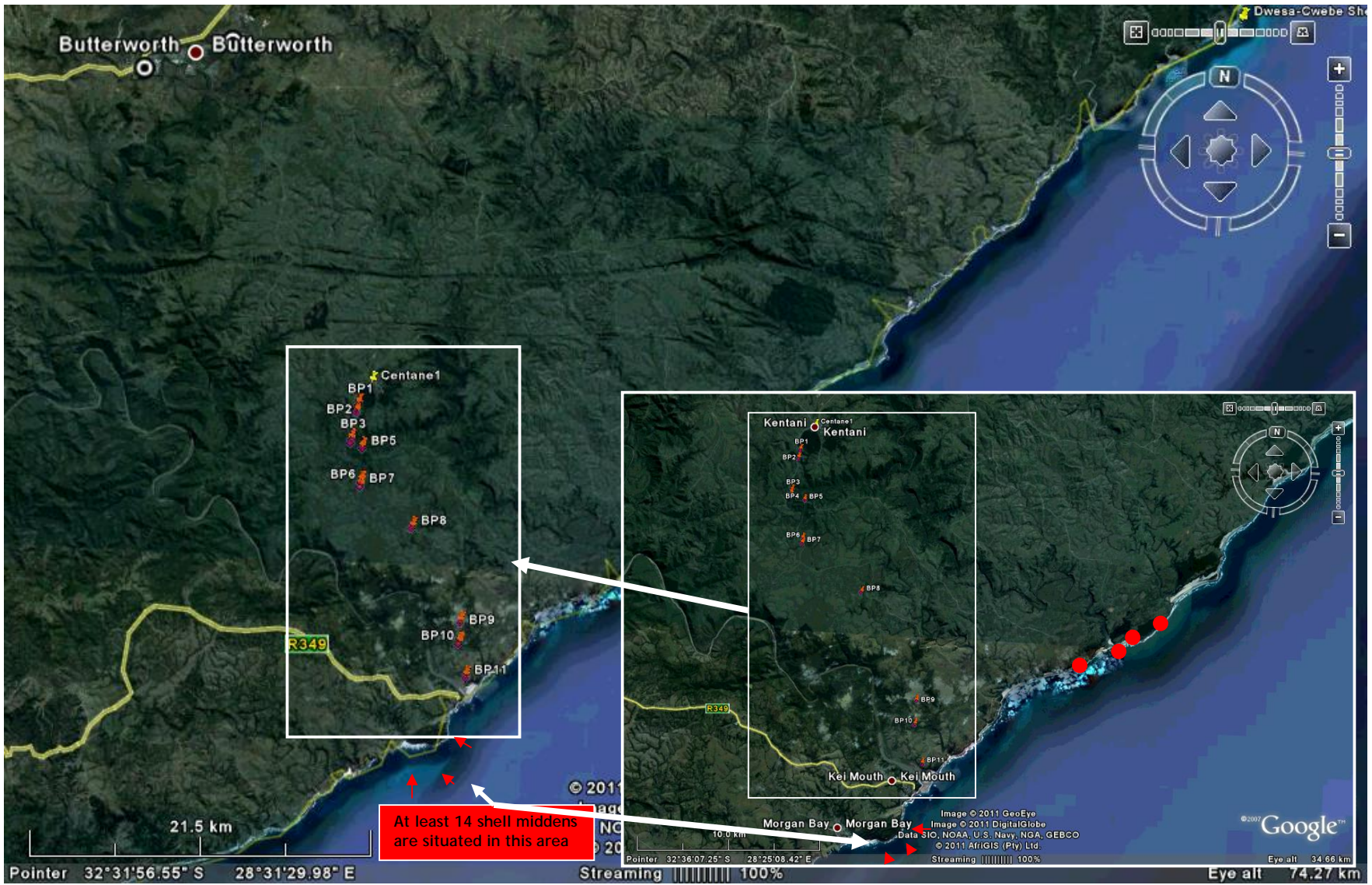
These are easy to identify and include foundations of buildings or other construction features and items from domestic and military activities.

Table 1. GPS Co-ordinates for the proposed Centane to Qholora and Kei River Mouths.

Reference	Description	Co-ordinates
Centane 1	General Reading	32°30'21.06"S; 28°18'45.30"E
Borrow Pit 1 (BP1)	Position of BP1	32°31'06.00"S; 28°18'14.94"E
Borrow Pit 2 (BP2)	Position of BP2	32°31'21.30"S; 28°18'11.70"E
Borrow Pit 3 (BP3)	Position of BP3	32°32'18.36"S; 28°18'01.08"E
Borrow Pit 4 (BP4)	Position of BP4	32°32'22.98"S; 28°17'59.58"E
Borrow Pit 5 (BP5)	Position of BP5	32°32'35.10"S; 28°18'28.38"E
Borrow Pit 6 (BP6)	Position of BP6	32°33'43.50"S; 28°18'28.02"E
Borrow Pit 7 (BP7)	Position of BP7	32°33'51.78"S; 28°18'27.96"E
Borrow Pit 8 (BP8)	Position of BP8	32°35'13.02"S; 28°20'37.56"E
Borrow Pit 9 (BP9)	Position of BP9	32°38'21.06"S; 28°22'43.08"E
Borrow Pit 10 (BP10)	Position of BP10	32°39'03.12"S; 28°22'42.36"E
Borrow Pit 11 (BP11)	Position of BP11	32°40'12.24"S; 28°23'01.38"E



Map 1. 1:50 000 map indicating the location of the proposed road upgrade and tarring (red dots: archaeological shell midden sites) (Insert map courtesy from SRK Consulting).



Map 2. Aerial view of the location of the proposed road upgrade and tarring (red dots: archaeological shell midden sites).