

**HERITAGE SURVEY OF THE PROPOSED QOLORA  
MARICULTURE FARM**

**FOR COASTAL & ENVIRONMENTAL SERVICES**

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## INTRODUCTION

Umlando cc was contracted by Coastal & Environmental Services cc to undertake a heritage assessment of the proposed Qolora mariculture farm, Eastern Cape. This area is ~3,5km northeast of the Kei River Mouth. The study area is situated behind the first dune cordon beside a prominent rock outcrop that extends into the sea.

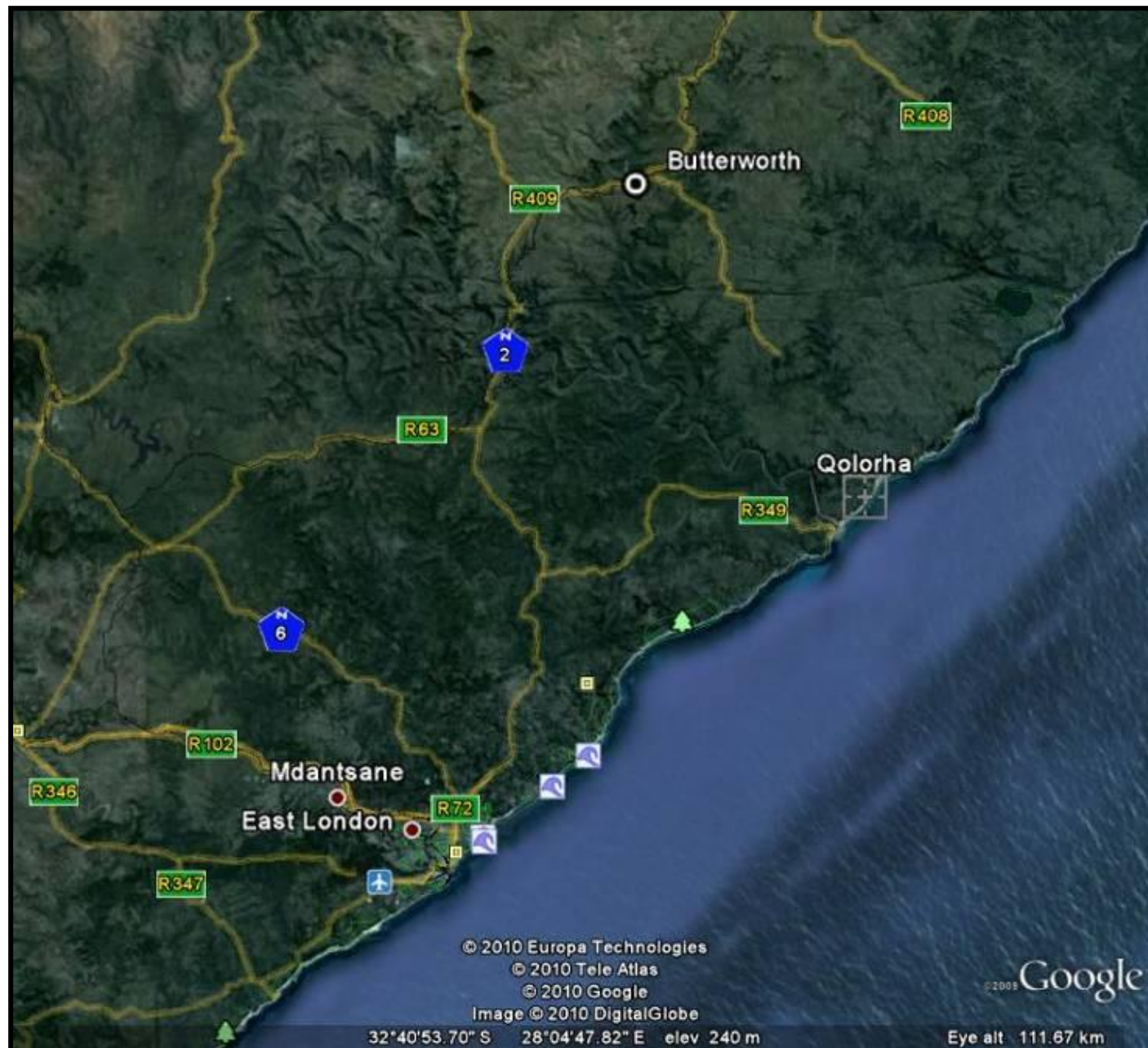
The area is mostly unaffected by humans in terms of farming activities such as ploughing. The vegetation is coastal forest with grasslands behind it. There are several homesteads nearby.

These types of areas have been systematically utilised by (pre-) historical people. The rocky outcrops are prime access points for marine shells that form an important part of proteins and omegas in the diet. Furthermore, these areas provide locales for fishing and fish traps. It is for this reason that all coastal areas tend to have high archaeological significance. There is a very high probability of sites occurring in these areas if there are rock outcrops.

The impacts on the area will be:

- Buildings related to offices and tanks
- Access roads
- Discharge and abstraction points
- Servitudes, e.g. sewerage, electricity, telephones

FIG. 1 GENERAL LOCATION OF THE PROPOSED QOLORA MARICULTURE FARM



## LEGISLATION PERTAINING TO HERITAGE SITES

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. These resources are defined as follows:

“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).

(3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—

- (a) Its importance in the community, or pattern of South Africa's history;
- (b) Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) Its importance in demonstrating a high degree of creative or technical achievement at a particular period;

- (g) Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and
- (i) sites of significance relating to the history of slavery in South Africa”

## METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the databases. These databases contain most of the known heritage sites in KwaZulu-Natal, and known memorials and other protected sites, battlefields and cemeteries in southern Africa. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips and decorated sherds are sampled, while bone, stone and shell are mostly noted. Sampling usually occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

### Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

**1. State of preservation of:**

- 1.1. Organic remains:
  - 1.1.1. Faunal
  - 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
  - 1.5.1. Ash Features
  - 1.5.2. Graves
  - 1.5.3. Middens
  - 1.5.4. Cattle byres
  - 1.5.5. Bedding and ash complexes

**2. Spatial arrangements:**

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

**3. Features of the site:**

- 3.1. Are there any unusual, unique or rare artefacts or images at the site?
- 3.2. Is it a type site?
- 3.3. Does the site have a very good example of a specific time period, feature,

or artefact?

**4. Research:**

- 4.1. Providing information on current research projects
- 4.2. Salvaging information for potential future research projects

**5. Inter- and intra-site variability**

- 5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?

5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

**6. Archaeological Experience:**

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

**7. Educational:**

7.1. Does the site have the potential to be used as an educational instrument?

7.2. Does the site have the potential to become a tourist attraction?

7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

**8. Other Heritage Significance:**

8.1. Palaeontological sites

8.2. Historical buildings

8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites

8.4. Graves and/or community cemeteries

8.5. Living Heritage Sites

8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.



FIG. 2: LOCATION OF THE MARICULTURE ZONE & HERITAGE SITES<sup>1</sup>



<sup>1</sup> Yellow = boundary of development; Red = Abstraction/discharge points

## RESULTS

A total of eight sites were recorded during the survey (fig. 2). In addition, much of the area had isolated or small scatters of shell fragments. These were mostly visible in paths and other disturbed areas. This suggests that there are shell middens throughout the study area, although they may be ephemeral.

### QOL01

QOL01 is located at the edge of the first dune cordon and has been exposed by a path (fig. 3). The site is a shell midden with at least two occupations. The upper occupation appears to be ephemeral, although this may be a result of the erosion. The lower occupation, or shell lens, is thicker and consists of shell and grinding stones. The upper layer occurs just below the surface, while the lower layer is ~40cm below the surface. There is ~40cm hiatus between the two lenses. The lower lens may date to the Late Stone Age, while the upper lens probably dates to the more recent past. The lower lens consists of a variety of shell species and upper grinding stones (or hammer stones). This lower lens is well preserved and will probably yield faunal remains.

Due to the dense vegetation and thick grass, it was not possible to determine the extent of the site. One of the pipes for the project may go through this area.

Significance: The site is of medium significance due to its stratigraphy and potential to yield faunal remains.

Mitigation: Test-pit excavations will need to occur to determine the full significance of the site. The test-pits should occur in the same area demarcated for the pipes.

FIG. 3: SOUTHEAST AND NORTHWEST VIEWPOINTS OF QOL01<sup>2</sup>



<sup>2</sup> Red arrow = upper lens, yellow arrow = lower lens

## QOL02

QOL02 occurs just above a small stream. The area appears to have been levelled at some point in the past and is indicative of a house platform. There is a stone cairn (1.5m x 0.5m in size) in this levelled area (fig. 4). The cairn is probably a grave. The cairn is not very high and appears to be more than 60 years old due to its 'sunken' appearance.

Significance: The grave is of high significance.

Mitigation: The site should be treated as a grave. The local community needs to be consulted regarding graves in the general area. If no one claims this grave, it should be fenced off and left undisturbed. The grave could be relocated, but only if it is in a crucial area of the proposed development.

**FIG. 4: POTENTIAL GRAVE AT QOL02**



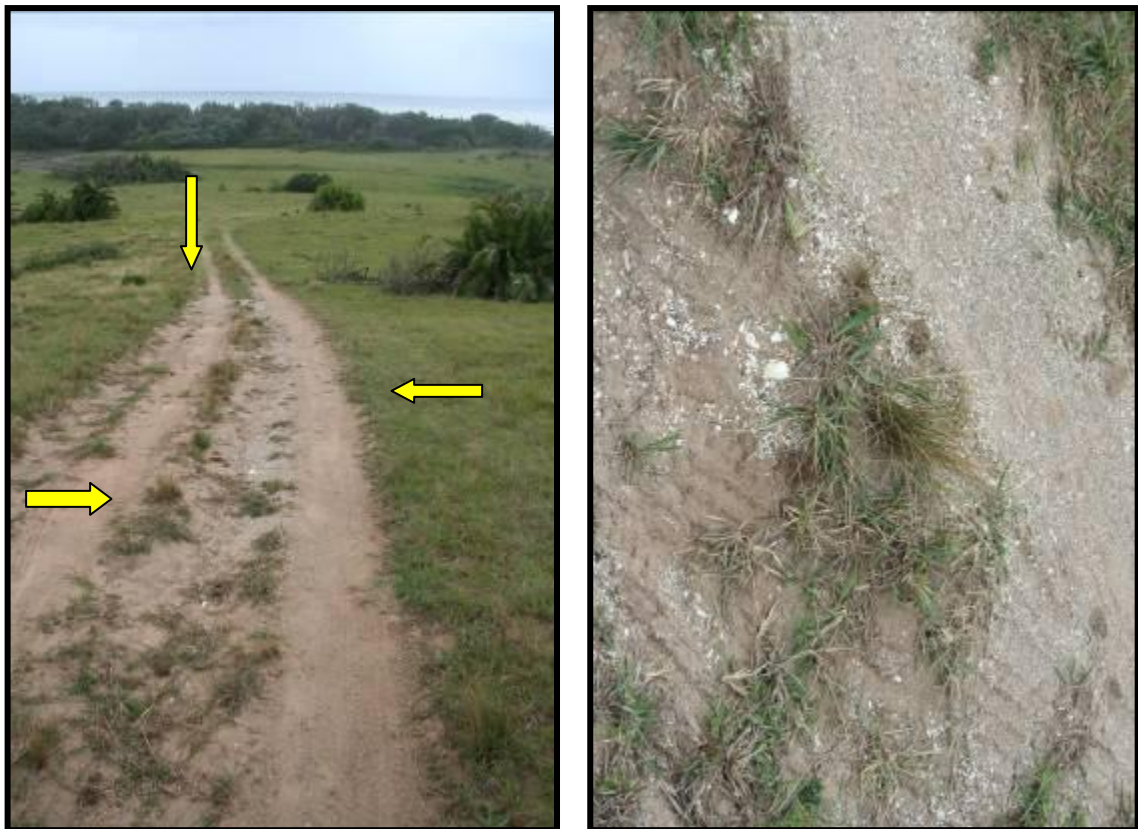
### QOL03

QOL03 is a shell midden that has been exposed by the track. The midden appears to extend for at least 5m along the northern side of the track. The track itself has exposed three middens along the hill (fig. 5). One midden appears to contain ash. The middens are fragmented where they have been exposed by the track.

Significance: The middens are of medium significance.

Mitigation: The middens should have test-pit excavations, and be sampled, if they are to be affected by the development.

**FIG. 5: EXPOSED MIDDEN AT QOL03**





#### **QOL04**

QOL04 is a shell midden located at the top of a small dune, just behind the first dune cordon. The site consists of several patches of shell. One of these patches is 0.5m wide (fig. 6). These patches are probably single processing episodes. The fragmented nature of the shell suggests that is archaeological, and not recent.

QOL04 occurs outside of the main development but may be affected by the pipes.

Significance: The site is of medium significance.

Mitigation: The site should be sampled by means of test-pit excavations. These test-pits will allow the site to be fully assessed in terms of its significance. The test-pits should occur where the pipes will be placed.

**FIG. 6: EXPOSED MIDDEN AT QOL04**

## QOL05

QOL05 is located just behind the first dune cordon and consists of an extensive scatter of shell on the surface. More shell would occur below the surface. The site is at least 50m in length and extends into the bushes. I observed an upper grinding stone in the burnt area by the bushes (fig. 7). This suggests that a living area may occur in this area.

A pipe may pass through the site.

Significance: The site is of medium significance.

Mitigation: Test-pit excavations should be undertaken to determine the full significance of the site. The test-pits should occur where the pipe will be placed.

**FIG. 7: EXPOSED AREA AT QOL05**



## **QOL06**

QOL06 is an extensive stratified midden that occurs from the first dune cordon and extends to, and onto, the rocky outcrop. The site is at least 100m x 50m in size (fig. 8). Parts of the midden are being scraped together presumably by members of the community. Much of the midden is still intact.

The upper midden is just below the surface and probably dates to the recent past (fig. 9). The lower middens vary in depth and probably date to the Late Stone Age (fig. 10). The midden is not big enough to be considered a mega-midden; however, it is extensive and should yield a range of artefacts and animal remains. The site appears to be a processing site in the coastal side, and a living area behind the first bushes.

In front of the midden are several semi-circular features made from local; rocks (fig's. 11 - 12). These appear to be human made fish traps that probably date to the same time as the shell middens, and have been repeatedly used thereafter.

A pipe may be going through this area, and thus affect the middens.

Significance: The site is of high significance.

Mitigation: The fish traps should be preserved and not damaged. They should also be properly recorded before any construction activity. This will form a base-line study of the fish traps and its status before and after construction.

Test-pit excavations should occur in the area where the pipe will occur. This will allow the midden to be sampled and its full significance to be determined.



**FIG. 8: SOUTHEAST VIEW OF PART OF QOL06**



**FIG. 9: UPPER LENS AT QOL06**



**FIG. 10: LOWER LENS AT QOL06**



**FIG. 11: POSSIBLE FISH TRAPS AT QOL06**



FIG. 12: LOCATION OF POSSIBLE FISH TRAPS



### QOL07

QOL07 is located just above a river and behind the first dune cordon (fig. 13). The site consists of several middens of various sizes. These middens occur just below the surface and probably date to the historical period.

Significance: The site is of medium significance

Mitigation: Test pit excavations should be undertaken if the site will be affected by the pipes.

**FIG. 13: LOWER LENS AT QOL06**



### **QOL08**

QOL08 is a scatter of shell on the surface on top of the hill behind the first dune cordon. The site occurs just outside of the planned development.

Significance: The site is of low significance as it is very ephemeral.

Mitigation: No mitigation would be required.

## MANAGEMENT PLAN

The survey results indicate that there are at least three main layers in the study area. There are shell deposits on the surface and these date to recent times (i.e. last 10 years). These recent activities are easily distinguishable from the archaeological sites. The upper (archaeological) layer is generally 5cm – 10 cm below the surface and probably dates to the Historical Period. The lower layer appears to occur 50cm – 70 cm below the surface and this probably dates to the later part of the Late Stone Age (i.e. last 5000 years). The fish traps are not unique to southern Africa, but are rare enough to warrant their protection.

The general pattern is one of a shellfish processing activity along the first dune cordon, and a living area behind this dune. The entire study area will thus have archaeological material, even when not visible from the surface, e.g. the Late Stone Age sites.

If specific middens are to be disturbed by the development, they will need to excavate. I suggest test-pit excavations as these can be used to determine the full significance of a site and in some cases will suffice as a sample size for that midden. Where the middens are to be affected by pipes, the pipe route should be demarcated and then excavated.

The possible fish traps should be fully recorded before any construction occurs. This will then serve as a baseline for potential damage. That is, the status of the fish traps can be determined and any claimed damage in the future may be (dis-)proved.

Test-pit excavations should occur in the development footprints, once they have been established. This will determine whether there is a site in that specific area, at the Late Stone Age levels.

The developer must note that test-pit excavations may lead to further excavations if deemed necessary.

## **CONCLUSION**

Umlando undertook a heritage survey of the proposed Qolora Mariculture Farm, Eastern Cape. The study area is relatively undisturbed in terms of ploughing activity. The study area is located behind the first dune cordon and a large rock outcrop. This made it an area of high significance in terms of archaeological site location.

The survey located eight archaeological sites of varying significance, and also noted several that the general area consists of scattered shell remains. This suggested that archaeological sites would occur throughout the study area. I suggested that the various middens have test-pit excavations to determine their full significance. These test-pits could also be used as a means of sampling the middens. I also suggested that test-pit excavations occur in the development footprint as sites may occur more than 50cm below the surface.

**APPENDIX A**  
**ARCHAEOLOGICAL SITE RECORD FORMS**

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Late Stone Age: x  
Early Iron Age:  
Late Iron Age  
Historical Period: x

Recorder's Site No.: QOL01  
Official Name: Qolora Mouth  
Local Name: Qolora Mouth

GPS reading: 32°39'4.42"S 28°25'6.47"E



**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the sings for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden  
Merits conservation: yes  
Threats: Yes  
What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes  
Digital pictures: x                      Tracings :                      Re-drawings:

Recorder/Informant: Name: Gavin Anderson  
Address: PO Box 102532, Meerensee, 3901  
Date: April 2010  
Owner:  
References:

**Description of site and artefactual content.**

QOL01 is located at the edge of the first dune cordon and has been exposed by a path. The site is a shell midden with at least two occupations. The upper occupation appears to be ephemeral, although this may be a result of the erosion. The lower occupation, or shell lens, is thicker and consists of shell and grinding stones. The upper layer occurs just below the surface, while the lower layer is ~40cm below the surface. There is ~40cm hiatus between the two lenses. The lower lens may date to the Late Stone Age, while the upper lens probably dates to the more recent past. The lower lens consists of a variety of shell species and upper grinding stones (or hammer stones). This lower lens is well preserved and will probably yield faunal remains. Due to the dense vegetation and thick grass, it was not possible to determine the extent of the site. One of the pipes for the project may go through this area.



**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL02

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'7.63"S 28°24'48.14"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL02 occurs just above a small stream. The area appears to have been levelled at some in the past and is indicative of a house platform. There is a stone cairn (1.5m x 0.5m in size) in this levelled area. The cairn is probably a grave. The cairn is not very high and appears to be more than 60 years old due to its 'sunken' appearance.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL03

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'12.94"S 28°24'47.24"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL03 is a shell midden that has been exposed by the track. The midden appears to extend for at least 5m along the northern side of the track. The track itself has exposed three middens along the hill (fig. 5). One midden appears to contain ash. The middens are fragmented where they have been exposed by the track.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL04

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'21.19"S 28°24'52.09"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL04 is a shell midden located at the top of a small dune, just behind the first dune cordon. The site consists of several patches of shell. One of these patches is 0.5m wide. These patches are probably single processing episodes. The fragmented nature of the shell suggests that is archaeological, and not recent.

QOL04 occurs outside of the main development but may be affected by the pipes.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL05

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'21.62"S 28°24'57.19"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL05 is located just behind the first dune cordon and consists of an extensive scatter of shell on the surface. More shell would occur below the surface. The site is at least 50m in length and extends into the bushes. I observed an upper grinding stone in the burnt area by the bushes. This suggests that a living area may occur in this area.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL06

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'22.23"S 28°24'59.27"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL06 is an extensive stratified midden that occurs from the first dune cordon and extends to, and onto, the rocky outcrop. The site is at least 100m x 50m in size. Parts of the midden are being scraped together presumably by members of the community. Much of the midden is still intact. The upper midden is just below the surface and probably dates to the recent past. The lower middens vary in depth and probably date to the Late Stone Age. The midden is not big enough to be considered a mega-midden; however, it is extensive and would yield a range of artefacts. The site appears to be a processing site in the coastal side, and a living area behind the first bushes. In front of the midden are several semi-circular features made from local rocks. These appear to be fish human made traps. These probably date to the same times as the shell middens, and have been repeatedly used thereafter.

A pipe may be going through this area, and thus affect the middens.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL07

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'27.37"S 28°24'43.93"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL07 is located just above a river and behind the first dune cordon (fig. 13). The site consists of several middens of various sizes. These middens occur just below the surface and probably date to the historical period.

**UMLANDO ARCHAEOLOGICAL SITE RECORD FORM**

**SITE CATEGORY:** (X where applicable)

Stone Age:

Early Iron Age:

Late Iron Age

Historical Period:

Recorder's Site No.: QOL08

Official Name: Qolora Mouth

Local Name: Qolora Mouth

GPS reading: 32°39'14.25"S 28°24'37.71"E

**DIRECTIONS TO SITE: SKETCH OR DESCRIPTION.**

From Butterworth take the R409 towards the coast. At Kentani, continue south following the signs for Seagulls Inn and Qolora. At Qolora, you will find a track between the Police station and the airfield. Take this right to the general area.

**SITE DESCRIPTION:**

Type of Site: shell midden

Merits conservation: yes

Threats: Yes

What threats: proposed mariculture

**RECORDING:**

Graphic record: Yes

Digital pictures: x

Tracings :

Re-drawings:

Recorder/Informant: Name: Gavin Anderson

Address: PO Box 102532, Meerensee, 3901

Date: April 2010

Owner:

References:

**Description of site and artefactual content.**

QOL08 is a scatter of shell on the surface on top of the hill behind the first dune cordon. The site occurs just outside of the planned development.