Archaeological Heritage Impact Assessment

Remainder Portion 54 of the Farm Hooge Kraal 238, Magisterial District George, Western Cape Province: proposed development of a small, "Eco Friendly" and environmentally sustainable Health Spa

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Executive Summary

On 5 July and 31 August 2007 an archaeological impact scoping survey was undertaken by CHARM cc as commissioned by Karen Waterston of Lekala Eco Tourism Management (PTY) LTD on Remainder Portion 54 of the Farm Hoogekraal 238, George, Western Cape Province (Figures 1 & 2 and Plates 1 & 2).

The main limitations to the study included restricted access due to topography and large areas of the property are covered with impenetrable vegetation and even where vegetation is low and less dense, only a small portion of the ground surface is visible for detection of archaeological traces.

Nevertheless, nine archaeological occurrences were recorded including materials spanning the bulk of the Stone Age from at least half a million years ago up to the last several hundred years. No archaeological material of the pottery / pastoralist (from about 2000 to a few hundred years ago) or colonial period (the last 400 years or so) were observed. The archaeological occurrence shown in Plates 12 and 13 is of significant value as similar deposits are very rare and represent the time period when anatomically and behaviorally modern humans emerged.

The above results of the limited scoping survey provide compelling evidence that the property is archaeologically sensitive. Due to the limitations described above, a full Heritage Archaeological Impact Assessment is not possible at this time and since development will be restricted to selected, environmentally non-sensitive "nodes", the following is recommended:

- *After finalizing layout of development, conduct a full Archaeological Impact Assessment (AIA) of all development "nodes" at the time of and after vegetation clearing when ground surfaces are exposed and during all earthmoving activities.*
- *Propose and motivate that an AIA of the entire property is not possible and that Heritage Western Cape accept and approve a "node"-based AIA – as detailed above - on condition that any additional or future development (vegetation clearing and earthmoving activities) on the property is subject to an AIA of the affected areas.*
- *If the development goes ahead, then a conservation and management plan will be required for important archaeological sites and occurrences such as that shown in Plates 12 and 13.*
- *Since a variety of archaeological materials occur on the property, a display and brief narrative concerning such materials will make an interesting and valuable contribution to the development.*

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1. Introduction

1.1 Background

The property in question is owned by Mrs Plattner of Fancourt who wishes to develop a small, exclusive spa. Being proactive, Mrs Plattner appointed Lekala Eco Tourism Management (Pty) Ltd to undertake a Preliminary Sensitivity Analysis on the property to establish the feasibility of development, and to guide its nature, placement and extent. Ms Karen Waterston of Lekala Eco Tourism Management (Pty) Ltd appointed the Centre for Heritage and Archaeological Resource Management (CHARM cc) to conduct an Archaeological Heritage Impact Assessment (AHIA) on Remainder Portion 54 of the Farm Hooge Kraal 238, Magisterial District George, Western Cape Province (Figures 1 & 2 and Plates 1 & 2). Ms Waterston, based on Tim Hart's recommendations, decided to include a preliminary Archaeological study at this point, even though the Fynbos is very dense and difficult to access.

The developer's intention is that results of specialist environmental studies guide and mold the nature and layout of development. The development must avoid or minimize adverse impact on sensitive and endangered environmental resources. Preliminary layout plans for the proposed development are shown in Figures 4 and 5 and include;

- Main service road;
- Public access walkway;
- Main buildings in disturbed areas;
- Wellness centre;
- About 20 units and/or lodges;
- 2 lookout points; and
- Staff accommodation.

1.2. Purpose and Scope of the Study

Objectives of the Archaeological Heritage Impact Assessment are:

- To assess the study area for traces of archaeological and heritage-related materials;
- To identify options for mitigation in order to minimize potential negative impacts; and
- To make recommendations for mitigation.

Terms of Reference (ToR):

a) Locate boundaries of the study area.
b) Conduct a foot survey of the study area to identify and record archaeological and heritage-related resources.
c) Assess the impact of the proposed development on archaeological and heritage-related materials.
d) Recommend mitigation measures where necessary.
e) Prepare and submit report to Ms Karen Waterson of Lekala Eco Tourism Management (Pty) Ltd that meets standards required by Heritage Western Cape in terms of the National Heritage Resources Act, No. 25 of 1999.

1.3 Study Area

Remainder Portion 54 of Farm Hooge Kraal 238, Magisterial District George, Western Cape Province is situated on the coast immediately west of the Maalgaten River, around 4 km - straight line - east of the coastal holiday village of Glentana, and an approximately 13 km crow flight south west of George (Figures 1 & 2 and Plates 1 & 2). From Mossel Bay, the

study area was reached by vehicle by taking the Glentana exit from the N2, turning right at the end of the off ramp, and finally turning left onto an unpaved road for the last 4 km to the study area. The access route is indicated with red arrows in Figure 2.

The study area is 42.5026 hectares in extent, and its main boundary points - rounded to the nearest meter - are as follows (map datum WGS 84; see Plate 2):

A, S34.04711 E22.34074 (decimal degrees); 23 Y0060872 X3769083 (SA Grid)
B, S34.04688 E22.34334 (decimal degrees); 23 Y0060633 X3769056 (SA Grid)
C, S34.04789 E22.34495 (decimal degrees); 23 Y0060483 X3769167 (SA Grid)
D, S34.05199 E22.35388 (decimal degrees); 23 Y0059656 X3769617 (SA Grid)
E, S34.05381 E22.35399 (decimal degrees); 23 Y0059645 X3769818 (SA Grid)
F, S34.05287 E22.34172 (decimal degrees); 23 Y0060778 X3769721 (SA Grid)

Plates 2 through 6 show diverse vegetation cover, topography, geology, and examples of contexts where archaeological and heritage related resources were identified.

See Jones and Patton (2007) for preliminary descriptions, assessments and concerns regarding environmental and related aspects including, but not restricted to;

- interested and affected parties
- geology, geotechnical or engineering geological aspects, soils and associated flora, soils and land capability, geohydrology and groundwater, soil erodibility, soil utilization potential, land use
- topography
- natural vegetation
- animal life
- surface water, water use, water authority
- sensitive landscapes
- visual aspects
- air quality

1.4 Approach to the Study

To the best of our knowledge, no archaeological or heritage related work has been conducted on the affected property or in its immediate vicinity. Numerous and varied archaeological sites - mostly of Stone Age origin – have been identified through impact assessments (Kaplan, Hart, Halkett, Mutti, Marean, this author) and recreational hiking along the coastal strip from Mossel Bay to Herolds Bay and include open air sites and archaeological resources in caves / rock shelters.

On 5 July and 31 August 2007 a preliminary archaeological heritage impact assessment of the affected property was undertaken by this author as commissioned by Ms Karen Waterston of Lekala Eco Tourism Management (PTY) LTD. The study area was reached and accessed by vehicle with the aid of maps, aerial photos and coordinate data provided by Ms Waterston (Figure 2).

The main limitations to the study included inaccessibility to the south western portion of the property due to very steep to vertical topography along the coastal cliffs, and the bulk of the study area is covered with impenetrable vegetation and even where vegetation is low and less dense, only a small portion of the ground surface is visible for detection of archaeological traces (Plates 2 through 6). Consequently, the vehicle and foot survey was restricted to vehicle tracks, exposed geological profiles of road/track cuttings, previously disturbed areas around cottage and eastern extent of vehicle track, exposed surfaces of and

around rocky outcrops, and accessible portions along and at the base of the coastal cliffs (Plates 2 through 6).

Records of the search include data fixed with a hand held GPS including vehicle and pedestrian trails, an assessment of the viability of the survey with respect to accessibility, vegetation and visibility, notes on the materials found as well as their contexts, a GPS fix and digital photography (a comprehensive photographic record is available from the author). Any archaeological heritage located during the survey was assessed in terms of its significance and scale of importance as well as in terms of the potential impacts of the proposed development. Given the limitations in the study area regarding visibility and accessibility, this report estimates that the survey captured less than adequate information on the archaeological heritage present. Due to limitations and restrictions mentioned above, this survey provides only a preliminary window on archaeological and heritage related resources in the study area.

2. Results

The vehicle and foot survey covered a distance of 8.8 km while inspection of exposed ground surfaces was limited to an area of roughly 7.7 hectares (Figures 3). Nevertheless, nine archaeological occurrences were recorded including materials originating in the Early Stone Age (around 300 000 years before present and older), Middle Stone Age (from 300 000 to about 30 000 years ago) and Later Stone Age (from some 30 000 to several hundred years ago). See examples and contexts of observations in Figure 3 and Plates 4, 5, 7 through 15. No archaeological material of the pottery / pastoralist (from about 2000 to a few hundred years ago) or colonial period (the last 400 years or so) were observed, but this may be a function of the limitations described above. The archaeological occurrence shown in Plates 12 and 13 is of significant value as similar deposits are very rare and represent the time period when anatomically and behaviorally modern humans emerged.

Figure 3 shows that several of the identified archaeological occurrences are located within a certain range or belt of contours, and it is likely that this pattern will continue in areas not accessible at the time of conducting the survey.

All archaeological and heritage related artefacts identified on the property are protected by the National Heritage Resources Act no. 25 of 1999. These materials may in no way be removed or disturbed without a permit from Heritage Western Cape.

3. Sources of Risk, Impact Identification, Assessment and Recommendation

The developer's intention is that results of specialist environmental studies guide and mold the nature and layout of development. The development must avoid or minimize adverse impact on sensitive and endangered environmental resources. Preliminary layout plans for the proposed development are shown in Figures 4 and 5 and include;

- Main service road;
- Public access walkway;
- Main buildings in disturbed areas;
- Wellness centre;
- About 20 units and/or lodges;
- 2 lookout points; and
- Staff accommodation.

In addition, the negative impact of pedestrian traffic – increase with development - on archaeological resources should not be underestimated.

The above results of the limited scoping survey provide compelling evidence that the property is archaeologically sensitive. Due to the limitations described above, a full Heritage Archaeological Impact Assessment is not possible at this time and since development will be restricted to selected, environmentally non-sensitive "nodes", the following is recommended:

- After finalizing layout of development, conduct a full Archaeological Impact Assessment (AIA) of all development "nodes" at the time of and after vegetation clearing when ground surfaces are exposed and during all earthmoving activities.
- Propose and motivate that an AHIA of the entire property is not possible and that Heritage Western Cape accept and approve a "node"-based AIA – as detailed above - on condition that any additional or future development (vegetation clearing and earthmoving activities) on the property is subject to an AHIA of the affected areas.
- If the development goes ahead, then a conservation and management plan will be required for important archaeological sites and occurrences such as that shown in Plates 12 and 13.
- Since a variety of archaeological materials occur on the property, a display and brief narrative concerning such materials will make an interesting and valuable contribution to the development.

4. Reference

Ian Jones and Phil Patton 2007. Glentana Fancourt Development: Pre Application (EIA) Site Investigation. Draft Report v1.1 Compiled by Earth Science Solutions for Lekala Eco (PTY) LTD

Figures and Plates (on following pages)

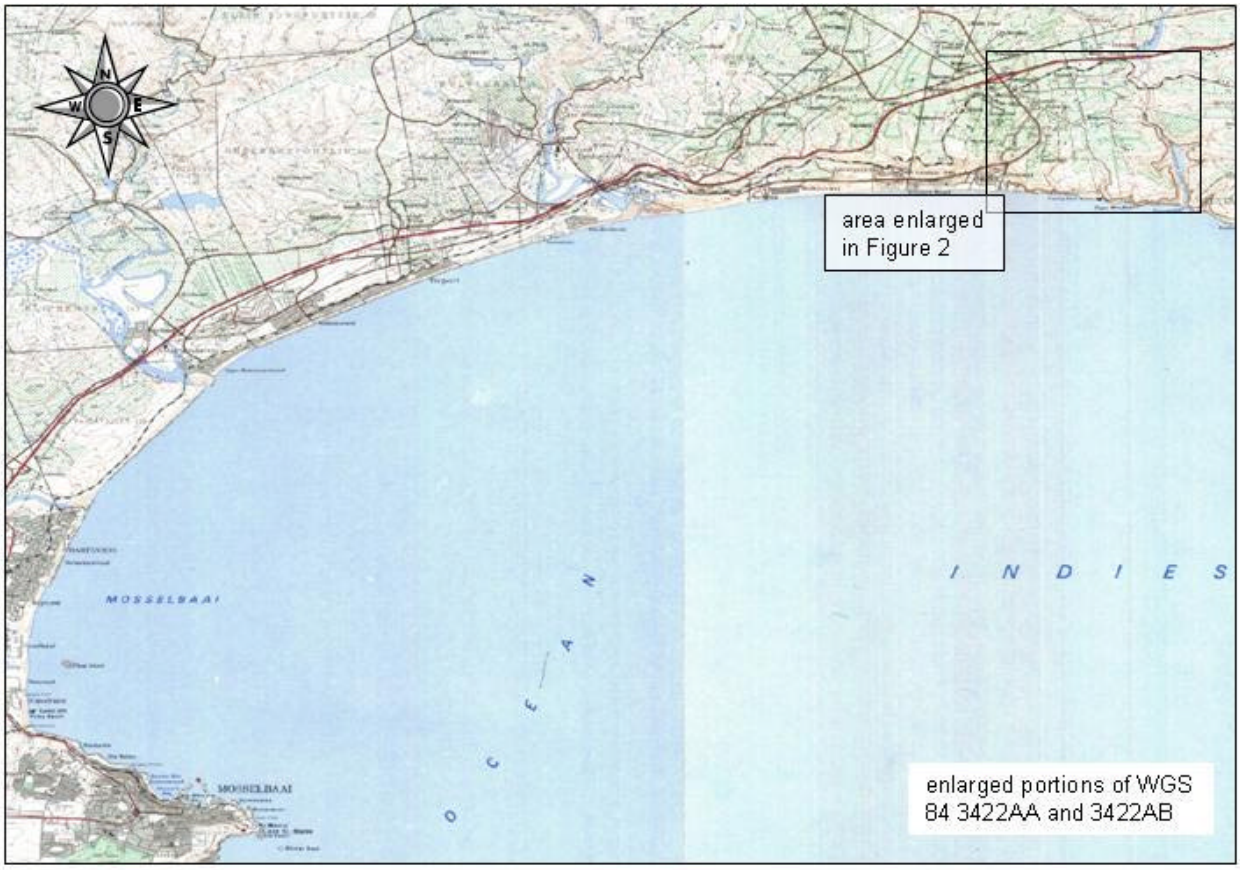

Figure 1. General location of study area – framed in black - relative to Mossel Bay, Western Cape.

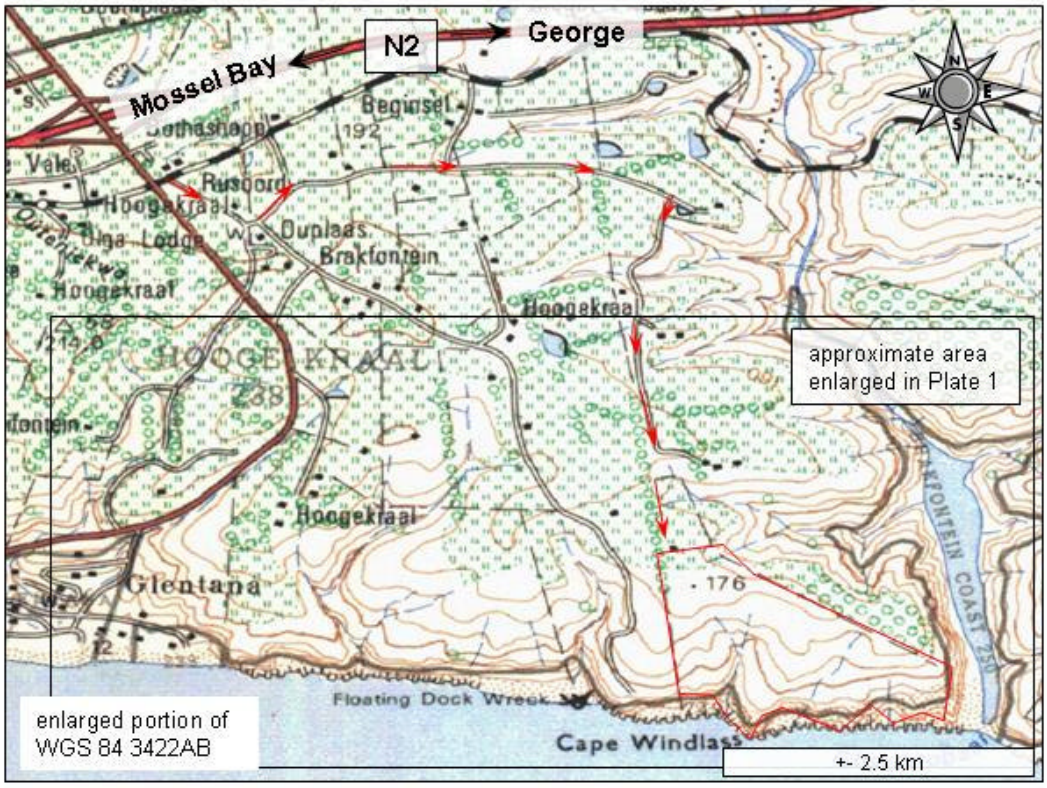

Figure 2. Enlarged area as indicated in Figure 1 showing the approximate extent of study area – red outline - relative to Glentana in the west while red arrows denote the access route.

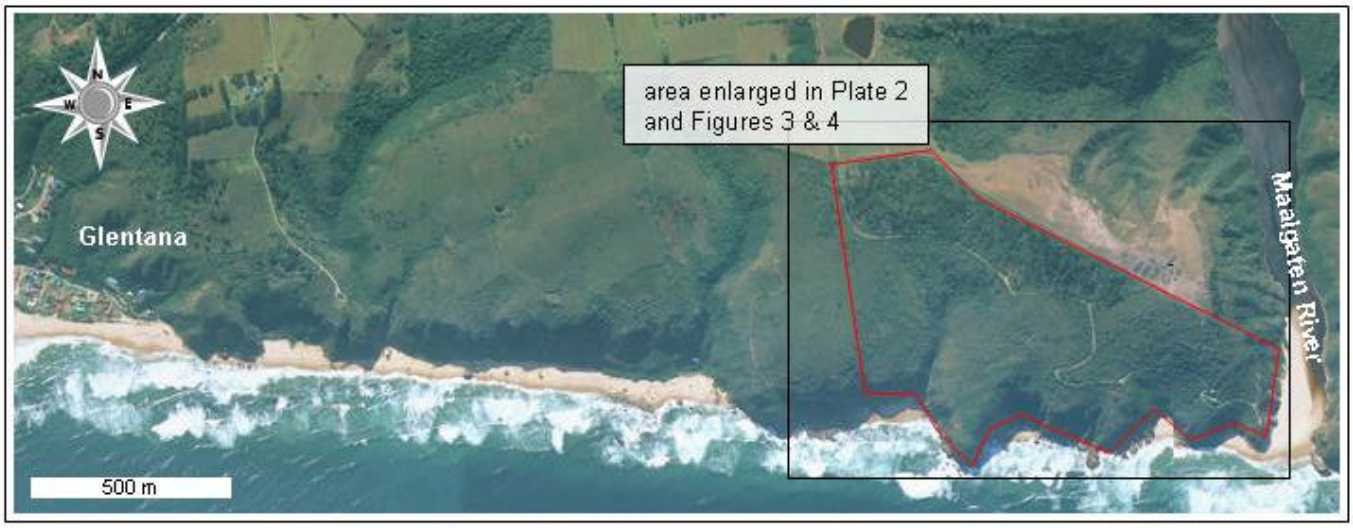

Plate 1. Enlarged area as indicated in Figure 2 showing the study area - outlined in red - relative to Glentana in the west and the Maalgaten River in the east.

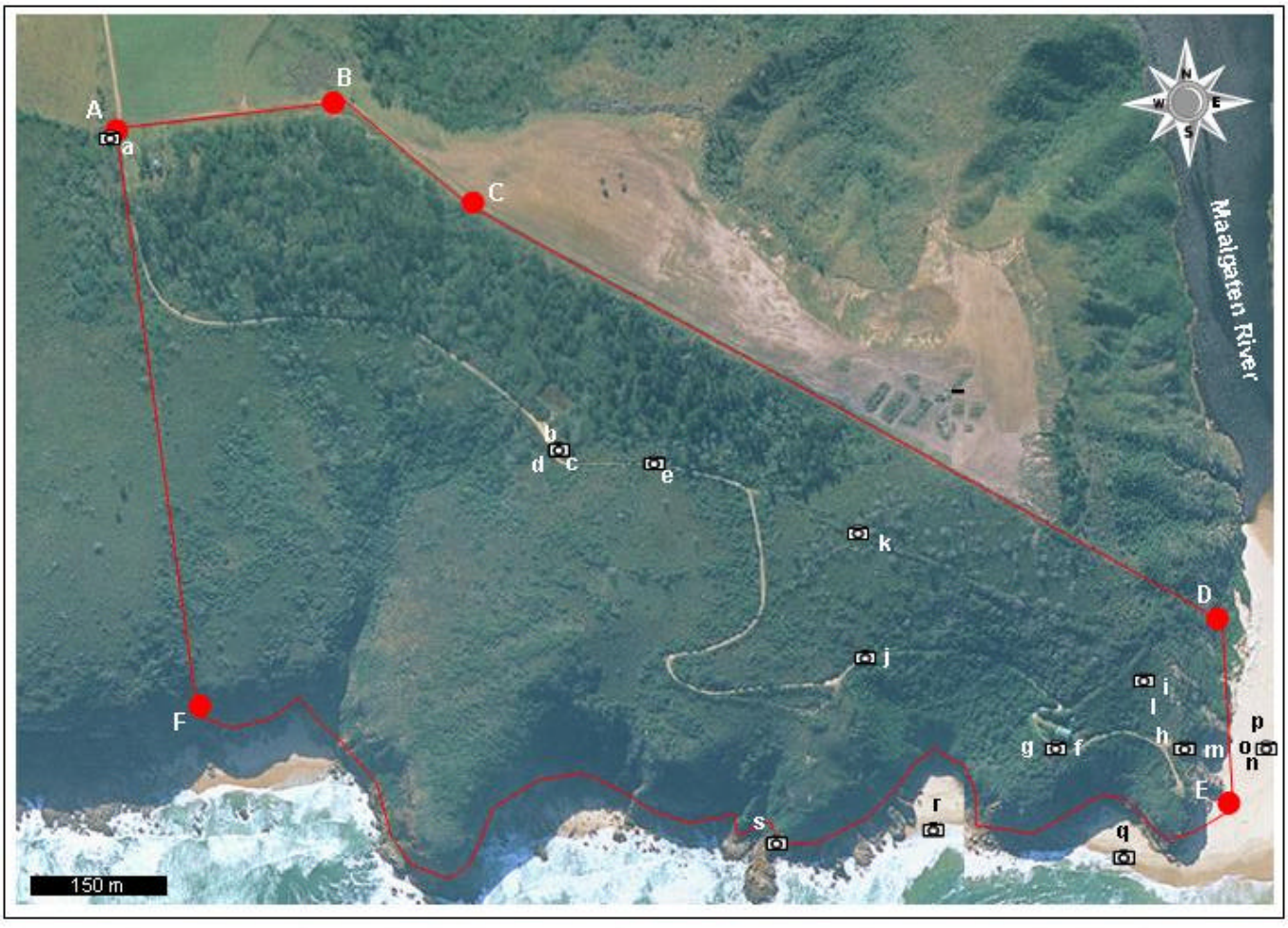

Plate 2. Enlarged area indicated in Plate 1 showing property boundary (coordinate data for A through F given in text) and lower case letters are photo localities of diverse vegetation cover, topography, geology, archaeological contexts, etcetera shown in Plates 3 through 6.

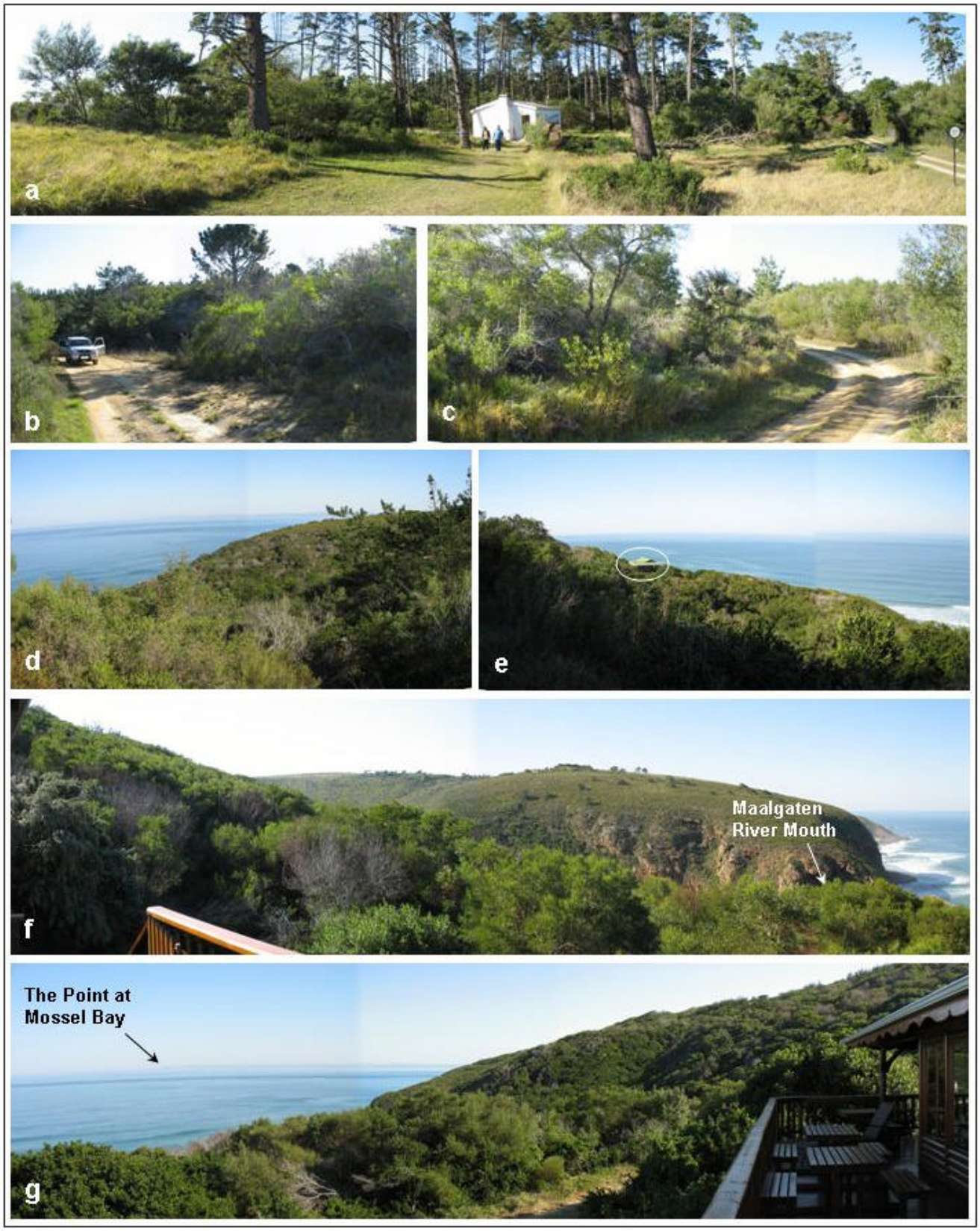

Plate 3. Examples of various vegetation cover and topography in the study area. The locations of above images are indicated with camera icons while the placement of lower case letters relative to camera icons show bearing towards which photos were taken (see Plate 2).

Plate 4. Some examples of contexts where archaeological materials were identified and recorded (h, i, k and l), as well as various vegetation cover and topography are shown above. Locations of images are indicated with camera icons while lower case letters relative to camera icons show direction of view (see Plate 2). White and short red in image i are 20 and 10 cm respectively.

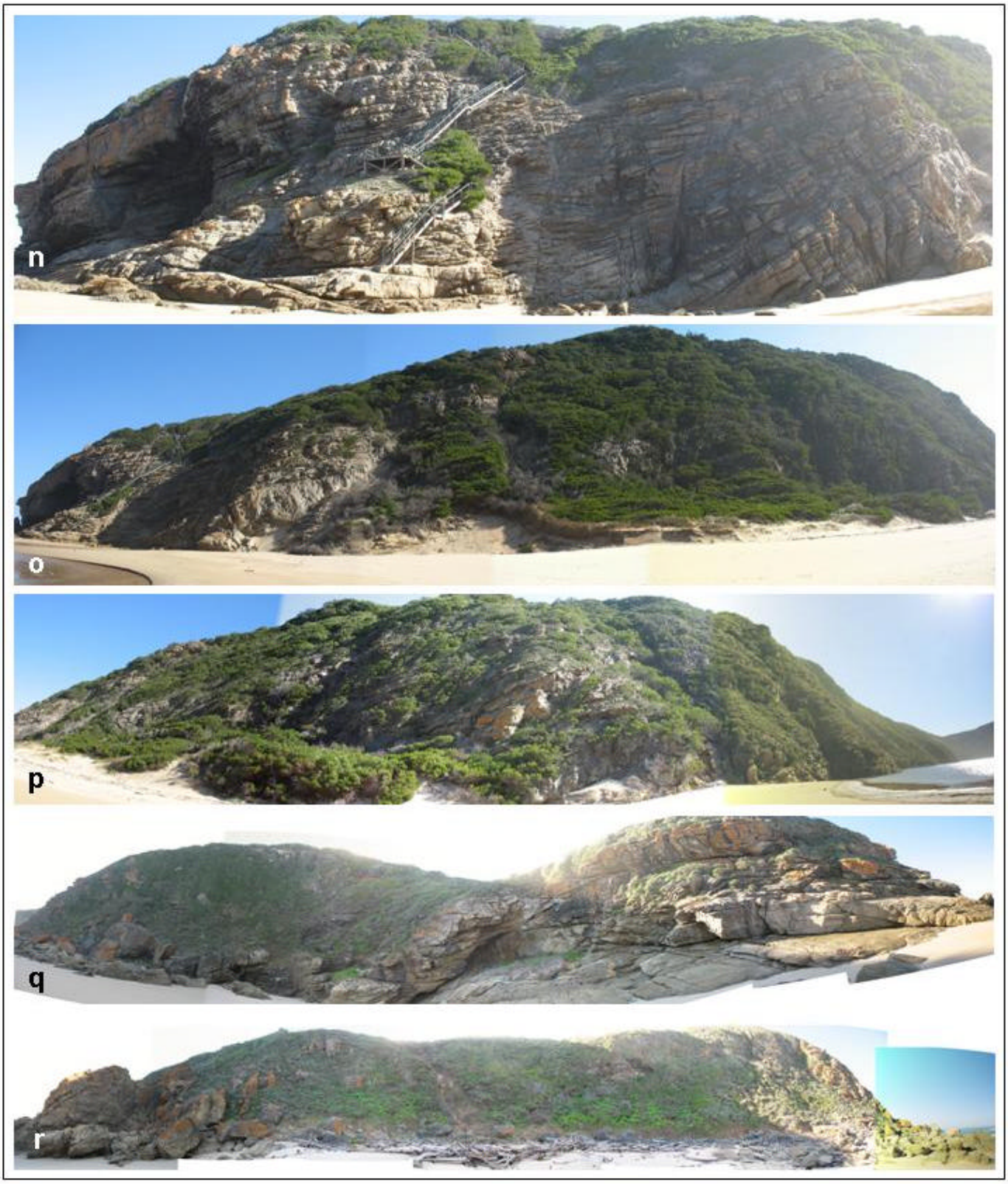

Plate 5. The above are panoramic views showing examples of cliffs, vegetation cover, topography and geology as seen from sea level. Locations of images are indicated with camera icons while lower case letters relative to camera icons show direction of view (see Plate 2). Large cave containing cemented remains of middle stone age origin is shown in n and o.

Plate 6. Several sea cut caves were observed toward the south western extent of the property. Due to several hazards they were not examined, but are almost certain to contain heritage and/or environmental resources. The locality of image is indicated with a camera icon and the lower case s shows direction of view (see Plate 2).

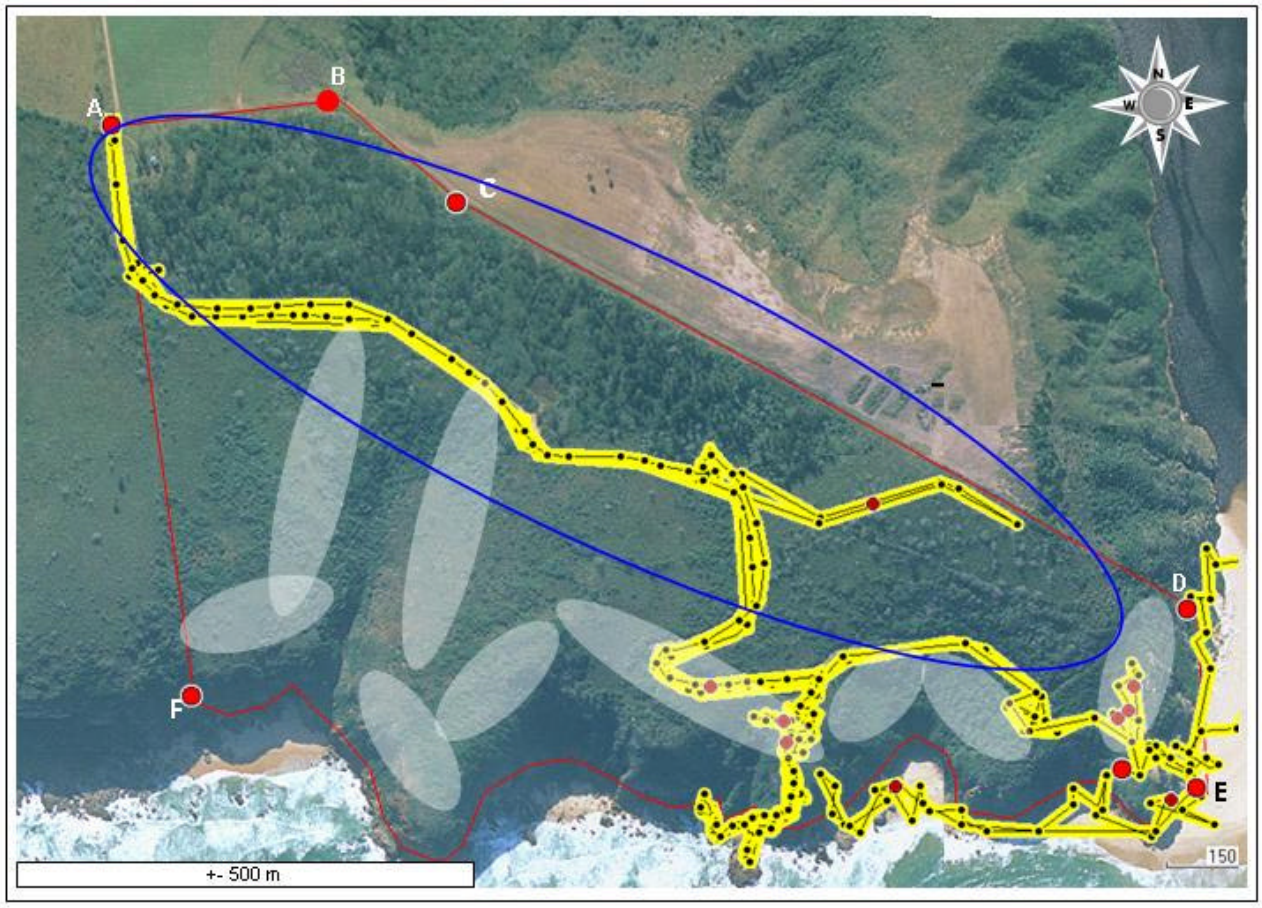

Figure 3. Enlarged area as indicated in Plate 1 showing property boundary points with large, labeled red dots (see text for coordinate data), vehicle and walk tracks with yellow lines and recorded archaeological / heritage related occurrences with small red dots. In addition to potential for archaeological resources to occur in sea cut caves, the gray shaded areas above indicate areas that are more likely to be archaeologically sensitive than the area indicated with a blue oval.

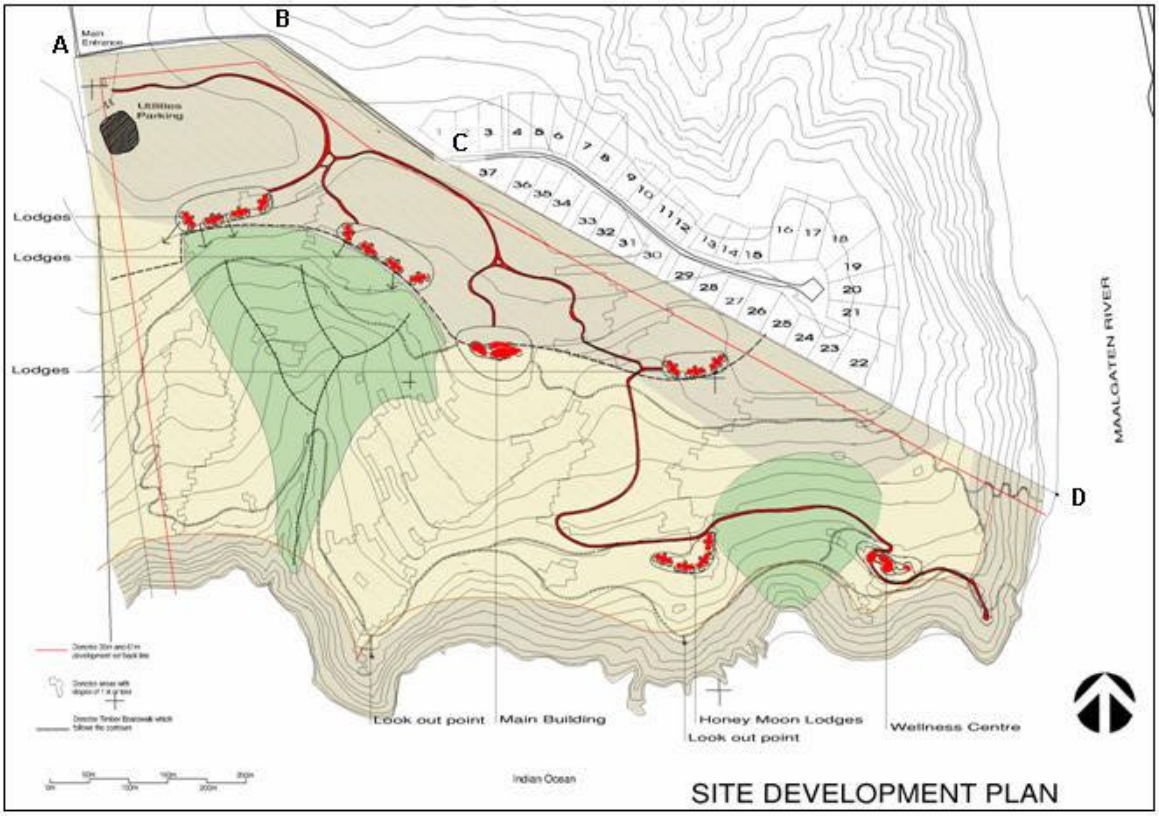

Figure 4. Enlarged area as indicated in Plate 1 showing the original layout plan for proposed development (courtesy Ms Karen Waterston). Coordinate data for boundary points A through D are given in the text.

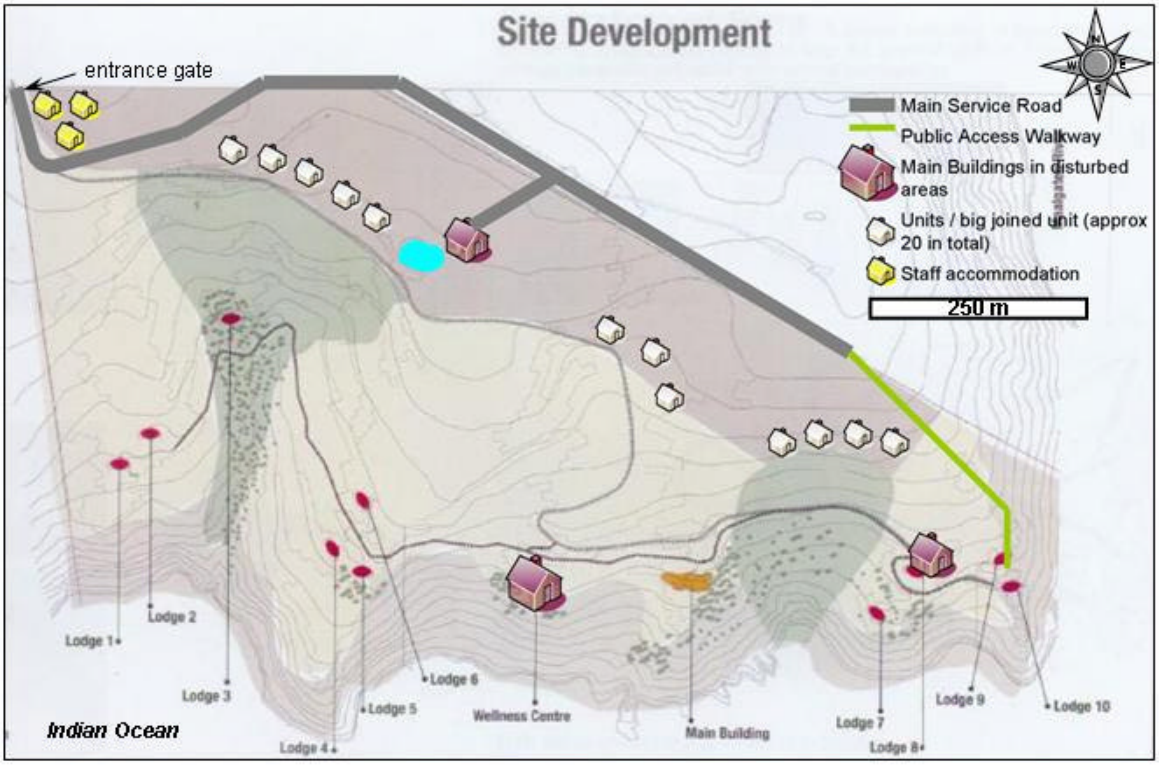

Figure 5. Enlarged area like Figure 3 showing the current layout plan for proposed development as guided by results of preliminary specialist environmental studies (courtesy Ms Karen Waterston).

Plate 7. Exposed profile adjacent to vehicle track where several stone artefacts were recorded (see Figure 3 and Plate 4). Hand held GPS for scale.

Plate 8. Retouched flake in milky quartz of Later Stone Age origin observed at locality shown in Plate 4.

Plate 9. Exposed profile near north eastern end of vehicle track with medium density scatters of Later and/or Middle Stone Age stone artefacts (see Plate 4 and Figure 3).

Plate 10. Examples of artefacts (circled) observed at locality shown in Plate 4.

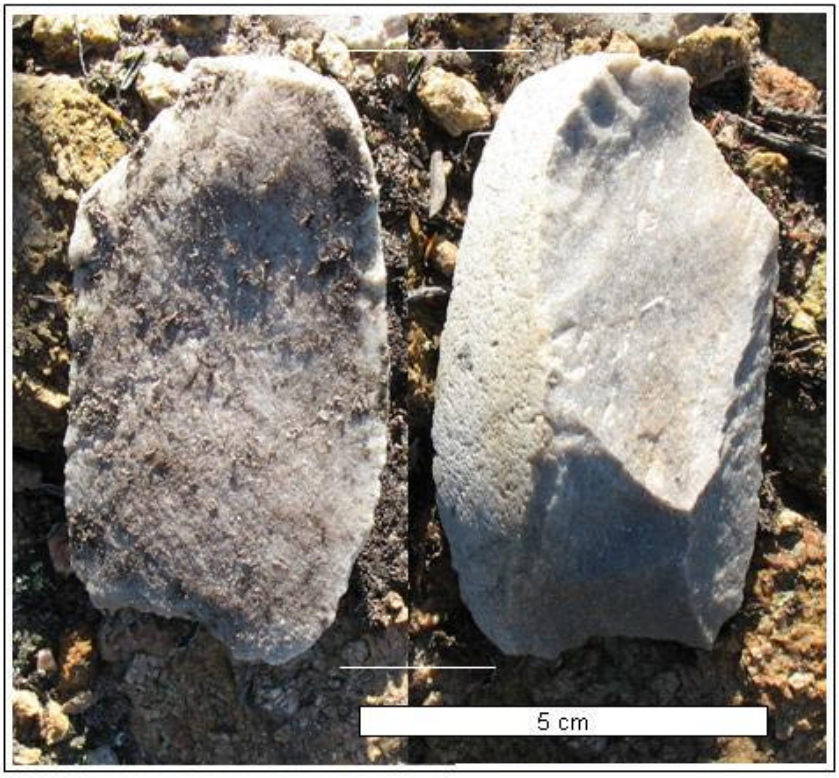

Plate 11. Example of flake blade in quartzite recorded at locality shown as i in Plate 4 and Figure 3.

Plate 12. Large sea cut cave at mouth of Maalgate River that contains a small portion of rare, cemented Middle Stone Age deposit (see n, o & p in Plate 2; Plate 13). At right the cliff is between 40 and 60 m above mean sea level.

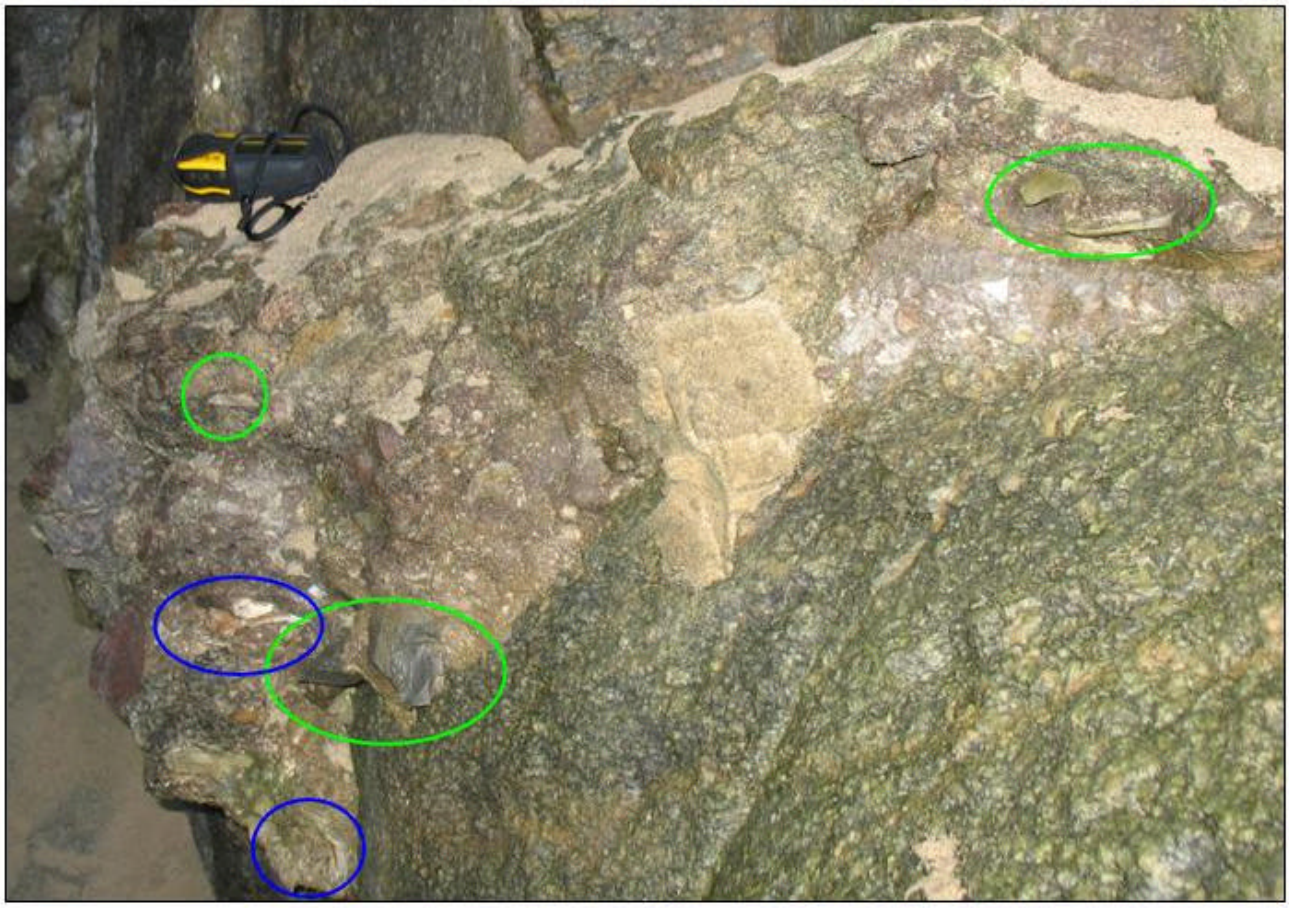

Plate 13. Cemented Middle Stone Age deposits containing stone tools and marine shell (examples circled in green and blue respectively). Archaeological deposits like this are very rare and thus highly significant.

Plate 14. Disused single vehicle track where isolated Stone Age artefacts were recorded (circled).

Plate 15. Isolated Stone Age artefacts as indicated in Plate 8. The specimen at left is of Early Stone Age origin while the right one is either Middle or Later Stone Age in age.


approximate area
enlarged below