

Additional, Exploratory Archaeological Investigations at Occurrences 54 and 57

(HWC Permit Numbers 2008-02-002 and 2008-02-003; HWC Ref. HM\Stilbaai\Site 54 and 57, Farm 485 PTN 51)

Portion 51 of the Farm Plattebosch 485, Stilbaai, Hessequa Municipality, Western Cape Province

prepared for
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Executive Summary

In November 2006, Mr. Royden Yates reported results of an Archaeological Heritage Impact Assessment (AHIA) conducted on the above named property. Several occurrences of archaeological – and potential heritage – resources that are protected by the National Heritage Resources Act, No. 25 of 1999 (NHRA of 1999) were identified (Yates 2006). NOTE: the document presented here is additional to the Yates report of 2006 and therefore, must be read with it rather than instead of it.

Heritage resources of greatest concern are those inadequately inspected due to limited exposure available when conducting the AHIA and include;

- 1. a possible shell and stone artefact layer intercepted at unknown depth in a geo-technical sounding (LSA) and*
- 2. a partly buried feature - perhaps a grave covering - possibly built by humans using calcrete chunks (LSA).*

Both occurrences are potentially of high significance and therefore Yates (2006) recommended that:

- 1. the developer commission a professional archaeologist to conduct exploratory shovel testing of the buried shell layer – observation 54 – in order to formulate appropriate measures to mitigate the impacts of the proposed development; and*
- 2. the developer commission a professional archaeologist to conduct exploratory clearing of the potential anthropogenic calcrete feature listed as observation 57.*

The developer appointed CHARM cc to undertake the additional exploratory fieldwork that was carried out from 17 through 19 March 2008 by the author, Mr. Winston Manginda and Mr. Mandisi Saulo with the following results;

- 1. an extensive examination of surface and subsurface sediments around observation 54 - via foot survey and shovel test excavations respectively - failed to expose any in situ, buried archaeological stratum comprised of marine shell and stone artifacts, and*
- 2. a thorough inspection of the association between surface sediments and calcrete chunks as well as exploratory clearing of the potential stone feature – observation 57 - also failed to expose an archaeological or heritage-related feature.*

Further to recommendations made by Yates (2006) it is recommended;

- 1. that there be no further legally obligated mitigation of archaeological resources at observations 54 and 57 and that the developer apply to Heritage Western Cape for and be granted a permit for destruction (CHARM can assist with this); observation 57 is not archaeological or heritage related and therefore a permit for its destruction is not required;*
- 2. that the developer commission a professional archaeologist to provide a trained monitor to observe vegetation clearing and earthmoving activities during the construction phase of the development and that the developer is responsible for costs associated with further heritage related work (CHARM can assist with this);*

3. *that if human remains are exposed through construction activities, the matter will fall into the domain of Heritage Western Cape and require a professional archaeologist to undertake the mitigation (CHARM can assist with this); and*
4. *that, with respect to archaeological and heritage related issues, the development be approved conditional to the implementation of the relevant Yates 2006 and above recommendations.*

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1. Introduction

1.1 Background

Following recommendations resulting from an AHIA (Yates 2006), Doug Jeffery Environmental Consultants appointed CHARM cc to undertake further investigations with respect to observations 54 and 57 on Portion 51 of Farm 485, Stilbaai in the Hessequa Municipality, Western Cape Province (Yates 2006; Figures 1 & 2). NOTE: the document presented here is additional to the Yates report of 2006 and therefore, must be read with it rather than instead of it.

A housing development is proposed, but layout plans were not formulated at the time of the work reported here. Nevertheless, - and minimally - the following activities are normally associated with housing developments and their intensity of impact on the affected environment will vary with density and nature of housing;

- removal of vegetation, excavation and earthmoving to create compact, level building platforms;
- trenching for structural foundations and installation of bulk services; and
- construction of roads and other amenities

These activities include extensive vegetation clearing and earthmoving activities. Impacts will be intensive and destructive of any archaeological heritage that may occur in the affected areas.

1.2. Purpose and Scope of the Study

Objectives of additional, exploratory archaeological investigations at Occurrences 54 and 57 are:

- to establish whether *in situ* anthropogenic deposits of marine shell and stone artifacts are preserved sub-surface at and around occurrence 54, and if so, to formulate appropriate measures to mitigate the impacts of the proposed development; and
- to determine whether the “feature” of calcrete chunks - occurrence 57 - is a heritage related feature and if so, to make recommendations for conservation and/or mitigation to minimize potential negative impacts of the proposed development.

Terms of Reference (ToR):

- a) Locate archaeological and potential heritage resources - observations 54 and 57 - in the study area (Yates 2006).
- b) Conduct the necessary field work to achieve the above goals.
- c) Assess the impact of the proposed development on archaeological and heritage-related materials at occurrences 54 and 57 (refer to Yates 2006).
- d) Recommend mitigation measures where necessary (also refer to Yates 2006).
- e) Prepare and submit a report to Doug Jeffery Environmental Consultants – developer’s representative - that meets standards required by Heritage Western Cape in terms of the National Heritage Resources Act, No. 25 of 1999.

1.3 Study Area

The study area is situated almost 2 kilometers west south west of the coastal town of Stilbaai, Western Cape Province (Figures 1 & 2). From Stilbaai, the study area was reached by vehicle via the Jongensfontein / Blombos road and then left into Bosbokduin Street that becomes Visvywer Street (Figure 2). We parked our vehicle on the verge of Visvywer Street,

roughly 20 to 30 meters from the Bosbokduin entrance gate – near boundary point C in Figure 2 - from where we accessed the property on foot. The study area is approximately 50 hectares in extent, and its main boundary points - rounded to the nearest meter - are as follows (map datum WGS 84; see Figure 2):

A, S34.39213 E21.40015 (decimal degrees); 21 Y-036797 X3807232 (SA Grid)
B, S34.39009 E21.40771 (decimal degrees); 21 Y-037493 X3807007 (SA Grid)
C, S34.39672 E21.41068 (decimal degrees); 21 Y-037764 X3807745 (SA Grid)
D, S34.39627 E21.40620 (decimal degrees); 21 Y-037351 X3807692 (SA Grid)
E, S34.39763 E21.40438 (decimal degrees); 21 Y-037183 X3807843 (SA Grid)

The following three paragraphs are nearly verbatim from the Yates report. The south east corner of the study area is only 200 m from the nearest stretch of shoreline in Skulpiesbaai. A large and long established housing estate named Bosbokduin lies to the south (Figures 2 through 4). Immediately west of the south western portion of the study area is a seemingly disused airfield for light aircraft including a partially overgrown, roughly west-east aligned runway as well as a hanger for light aircraft (Figures 2 & 4 and Plate 1). Calcrete is the foundation of the runway and was either transported into the area for this purpose, or a naturally occurring calcrete bed was exposed beneath aeolian sands – ubiquitous on the property - forming a natural solid base for the landing strip.

Two depressions on the eastern border of the study area dominate the topography of the study area, creating relatively steep slopes in the east central and north eastern parts (see Figures 2 through 4 and Plate 1). Vegetated dunes occur in a narrow strip along the southern border. In this area the surface is undulating, whereas elsewhere in the study area it is very regular (Figures 2 & 3 and Plate 1). The substrate is predominantly sandy everywhere, except for minor areas of calcrete that have for the most part been exposed by earth moving. It is probable that calcrete underlies the surface sands of the entire study area.

At present the study area appears not to be used for any regular purpose. Vegetation is essentially indigenous, although this is thanks to an intensive operation to remove invasive plant species. Vegetation consisted mostly of knee to waist high bushes and grassy species with interspersed milkwood trees (Figure 3 and Plate 1). The substrate is not readily visible between the vegetation, except for an area in the north west. Moles heaps are common throughout the study area and provide a convenient opportunity to sample for the presence of archaeological heritage. Overall, the visibility in the study area is poor (medium to long range) to poor to moderate (short range).

1.4 Approach to the Study

The study area was located by means of maps, aerial photos and coordinate data provided by Doug Jeffery Environmental Consultants, and information presented in the AHIA report (Yates 2006). The positions of observations 54 and 57 were readily located by means of the navigation function on a hand held Garmin GPS. The placement of shovel test excavations, foot survey tracks and clearing of the potential stone feature were fixed with a hand held GPS (Figure 4). Notes and a comprehensive, high quality digital photographic record was also generated (full data set available from author).

Exploratory investigation at observation 54 started by locating the geo-technical sounding that produced two marine shells and a silcrete flake as recorded by Yates (2006). After finding occurrence 54, shovel test excavations were placed on two sides of the geo-sounding, along a SE transect away from observation 54 and then at previously recorded occurrences 39 and 42 where low density scatters of marine shell and stone artifacts occur on the surface (Figures 3 & 4; Plates 2, 3 & 4; Yates 2006). Excavations aimed at exposing

in situ archaeological deposits of marine shell and stone were carefully carried out with spades and shovels. The depth of excavations ranged from around 1 to 1.8 meters. Due to the absence of heritage related resources, excavated sediments were not sieved. Only one test hole (3) necessitated using a more sensitive, trowel-based excavation strategy. Once test holes were excavated, their positions were fixed by GPS, profiles were photographed and for safety, holes were demarcated with fence droppers and hazard tape (Plates 2 and 3). At the end of fieldwork, all test holes were back filled (Plate 4). Coordinate data for observations 54 and 57 as well as test holes (TH) – rounded to the nearest meter - are as follows (map datum WGS 84 Latitude and Longitude and Hartebeesthoek94 Central Meridian 21°; see Figure 4):

054, S34.39635 E21.40965 (decimal degrees); 21 Y-037669 X3807703 (SA Grid)
057, S34.39585 E21.40480 (decimal degrees); 21 Y-037223 X3807646 (SA Grid)
TH1, S34.39634 E21.40967 (decimal degrees); 21 Y-037671 X3807702 (SA Grid)
TH2, S34.39629 E21.40963 (decimal degrees); 21 Y-037667 X3807697 (SA Grid)
TH3, S34.39654 E21.40975 (decimal degrees); 21 Y-037678 X3807724 (SA Grid)
TH4, S34.39654 E21.40975 (decimal degrees); 21 Y-037678 X3807724 (SA Grid)
TH5, S34.39654 E21.40975 (decimal degrees); 21 Y-037678 X3807724 (SA Grid)
TH6, S34.39659 E21.40990 (decimal degrees); 21 Y-037692 X3807730 (SA Grid)
TH7, S34.39657 E21.40982 (decimal degrees); 21 Y-037684 X3807727 (SA Grid)
TH8, S34.39648 E21.40967 (decimal degrees); 21 Y-037670 X3807718 (SA Grid)
TH9, S34.39664 E21.40969 (decimal degrees); 21 Y-037672 X3807735 (SA Grid)
TH10, S34.39662 E21.40982 (decimal degrees); 21 Y-037685 X3807733 (SA Grid)
TH11, S34.39663 E21.40993 (decimal degrees); 21 Y-037695 X3807734 (SA Grid)

Observation 57 was located by means of the GPS navigation function (Figure 4, Plates 5 & 6). Our team of three – carrying one GPS – thoroughly searched the area for a potential stone (calcrete) feature (bearing in mind that one GPS was carried; see walk tracks at and around observation 57 in Figure 4). A small accumulation of calcrete chunks was carefully cleared and then examined for context and association.

2. Results

As Yates anticipated, shovel test excavations in the area around observation 54 failed to uncover an *in situ* archaeological layer of marine shell and stone artifacts (Figure 4 and Plates 2 & 3). No marine shell was encountered in any of the 11 test holes. Apart from three stone artifacts exposed in test hole 3, no trace of archaeological, palaeontological or heritage-related resources were found in the shovel test holes (Plates 2 & 3). Although low density scatters of marine shell and stone artifacts occur on the surface, they were not found at depth.

A thorough inspection of the association between surface sediments and calcrete chunks as well as exploratory clearing of the potential stone feature – observation 57 - failed to expose an archaeological or heritage-related feature. Calcrete chunks and nodules are randomly scattered and either occur naturally or are - more likely - associated with the calcrete surfaced runway that enters the study area from the west (Figures 2 & 4, Plates 1, 5, 6 and 7).

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

- Development of the area will entail vegetation clearance and removal of some sand / soil. The impacts of the activities will be highly intensive and totally destructive of any archaeological heritage that may occur in the areas directly affected.

- Because exploratory shovel testing in search of a buried shell and stone layer – observation 54 – did not expose *in situ* materials, it is not necessary to formulate appropriate measures to mitigate the impacts of the proposed development.
- A thorough inspection of the association between surface sediments and calcrete chunks as well as exploratory clearing of the potential stone feature – observation 57 - failed to expose an archaeological or heritage-related feature.

Further to recommendations made by Yates (2006), it is recommended;

1. that there be no further legally obligated mitigation of archaeological resources at observations 54 and 57 and that the developer apply to Heritage Western Cape for and be granted a permit for destruction; observation 57 is not archaeological or heritage related and therefore a permit for its destruction is not required;
2. that the developer commission a professional archaeologist to provide a trained monitor to observe vegetation clearing and earthmoving activities during the construction phase of the development and that the developer is responsible for costs associated with further heritage related work that may stem from monitoring;
3. that if human remains are exposed through construction activities, the matter will fall into the domain of Heritage Western Cape and require a professional archaeologist to undertake the mitigation; and
4. that, with respect to archaeological and heritage related issues, the development be approved conditional to the implementation of the relevant Yates 2006 and above recommendations..

Reference

Royden Yates 2006. Archaeological Heritage Survey of Farm 485/51, Stilbaai, Western Cape Province

Figures and Plates (on following pages)

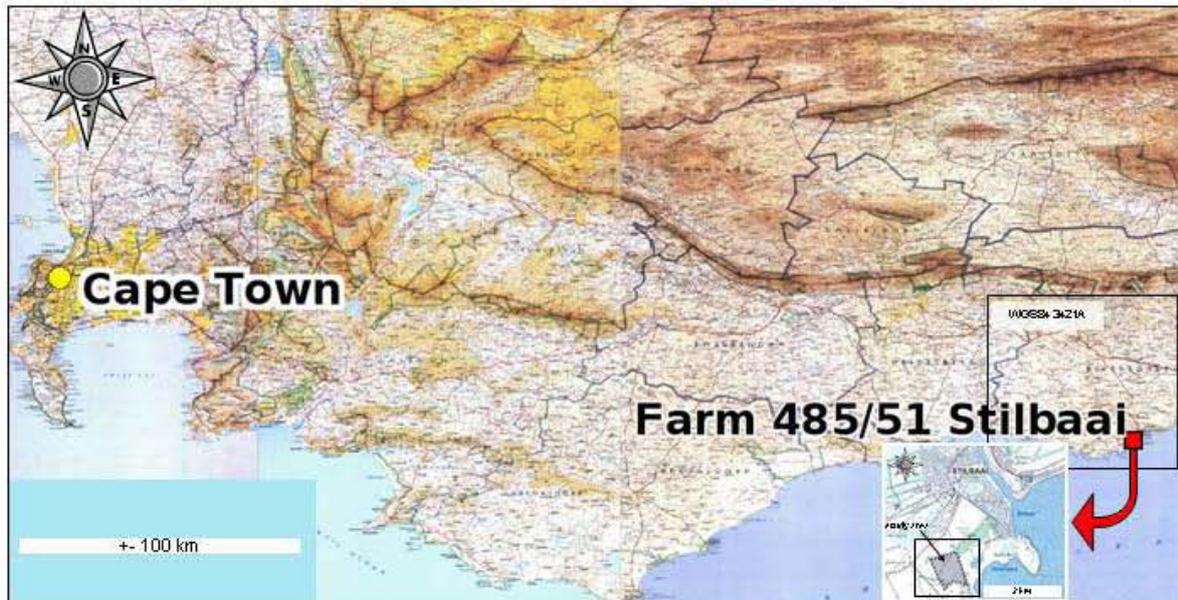


Figure 1. Red square indicates general location of study area near Stilbaai, Cape south coast. Black frame in main image shows near location and extent of pertinent 1:50 000 map (WGS84 3421A). Black frame in inset encloses the study area - Farm 485 Portion 51 - and is enlarged in Figure 2.



Figure 2. Enlarged area as indicated with black frame in inset of Figure 1 showing topography and extent of study area in red. See text for coordinates of main boundary points A through E.

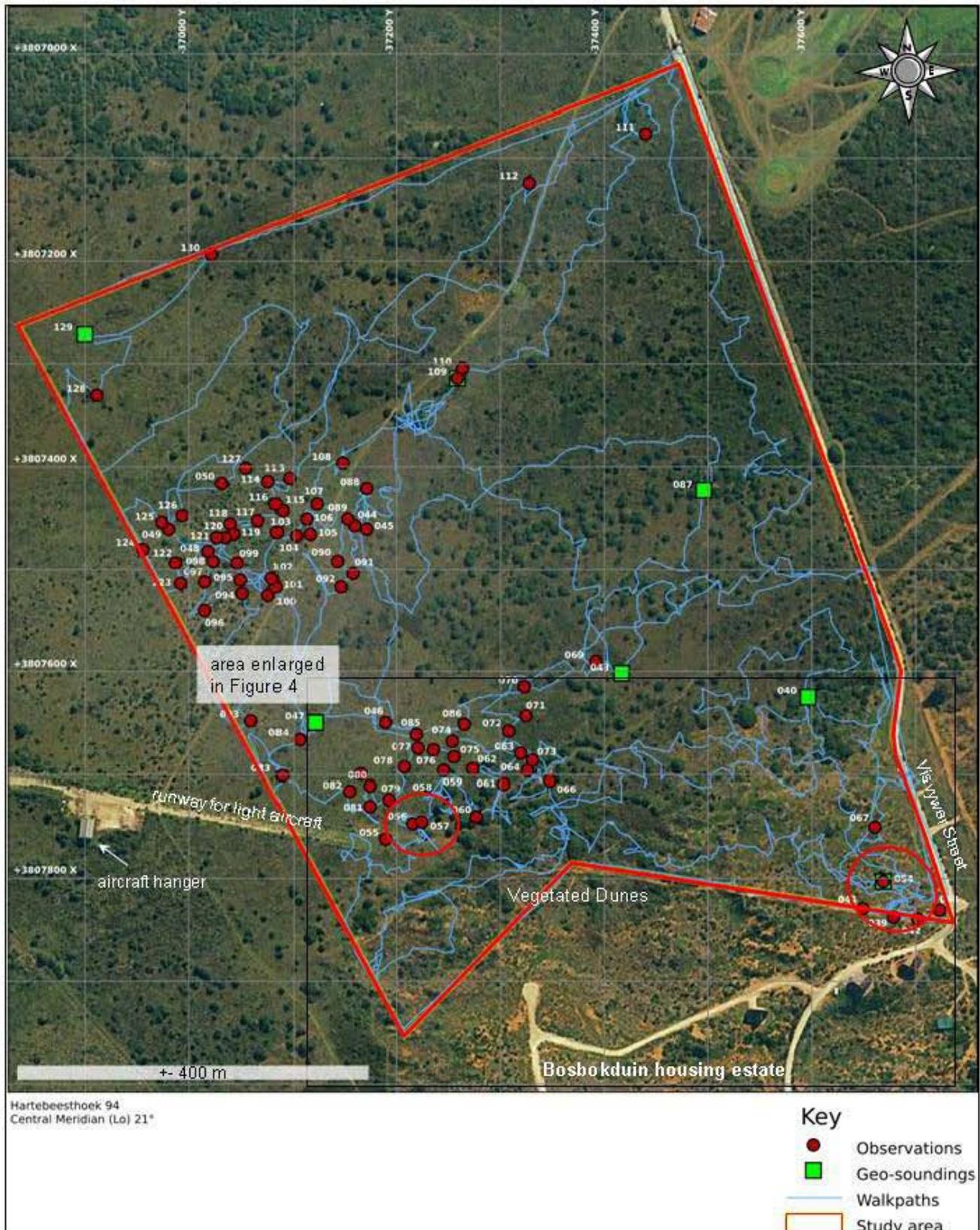


Figure 3. Enlarged area as indicated in Figure 2 showing archaeological observations with numbered red dots, and red ovals encircle archaeological occurrences investigated and reported here. This figure is based on Figure 4 in Yates 2006.

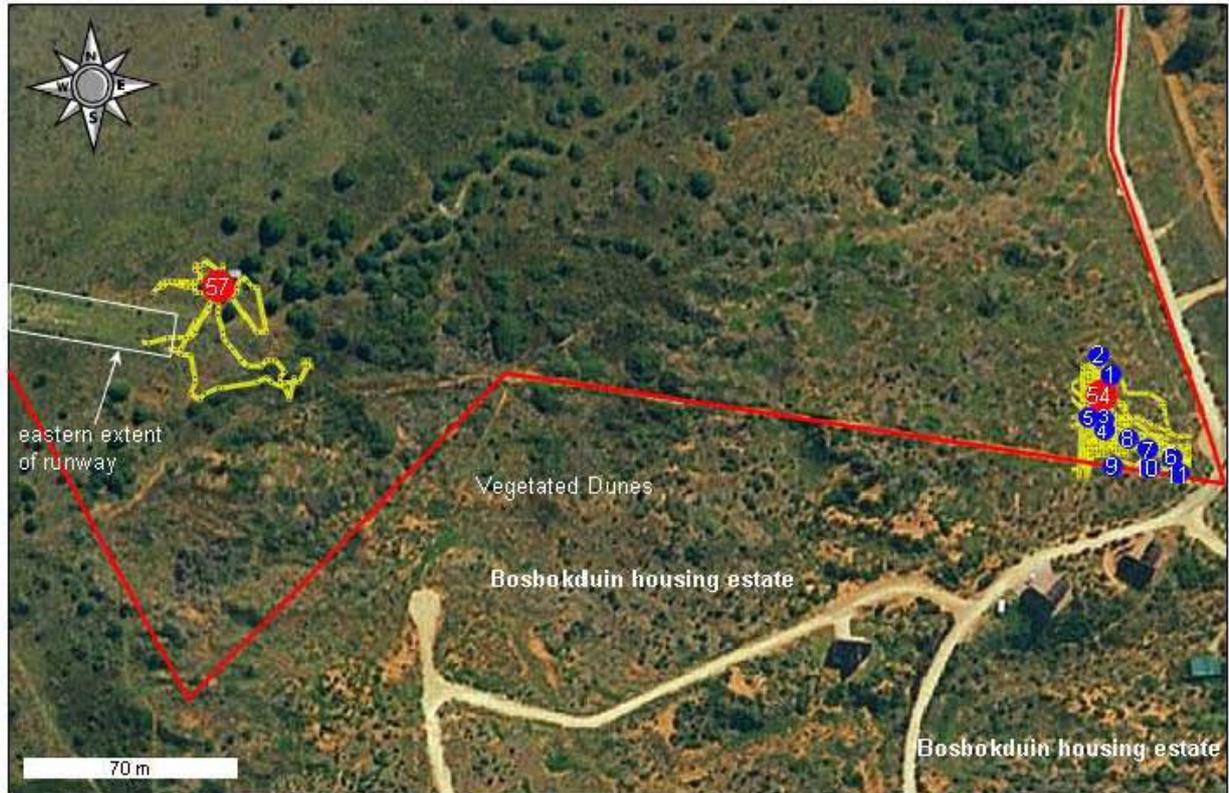


Figure 4. Enlarged area as indicated in Figure 3 showing pertinent archaeological observations and locations of exploratory shovel test excavations with numbered red and blue dots respectively. Walk tracks associated with foot survey – 54 and 57 – and clearing of potential stone feature at and around observation 57 are shown in yellow.

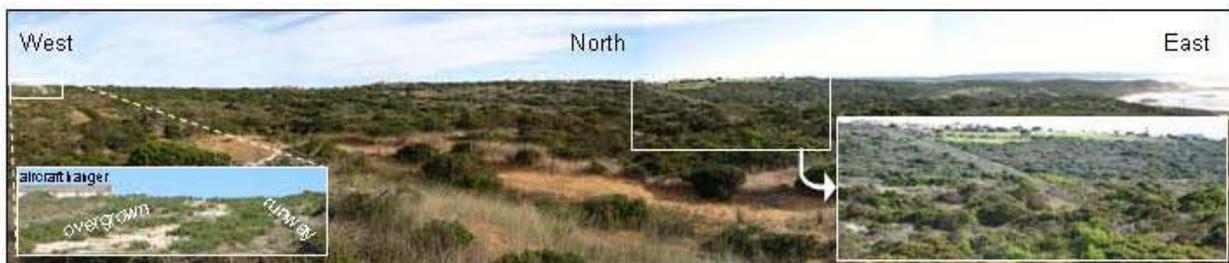


Plate 1. Panoramic view (180°) from southern border of study area showing vegetation, topography and airfield.



Plate 2. Stone artifacts in topsoil and upper sands of test hole 3 (left) and extended excavation to test holes 4 and 5. Note sterile dune sands. Long red and short red are 50 and 10 cm respectively.



Plate 3. Shovel test hole 1 enclosed with droppers and danger tape. Inset shows eastern profile of sterile dune sands to a depth of about 1.8 m. All test holes produced profiles of archaeologically sterile dune sands. Long red and short red are 50 and 10 cm respectively.



Plate 4. Inset shows scatter of shell and stone at observation 42. All shovel test holes were back filled on completion of the fieldwork. White and red of scale in inset equals 20 cm and 10 cm respectively.



Plate 5. Panorama of environment around observation 57 – white oval - showing its position relative to the eastern extent of the runway.



Plate 6. Randomly distributed calcrete blocks and nodules at observation 57. No evidence for human involvement other than construction and maintenance of the calcrete surfaced runway. Long red and short red are 50 and 10 cm respectively.



Plate 7. View to the west from the eastern extent of the runway. Enlarged portion of Plate 5 showing concrete surface and raised platform of the landing strip as well as its proximity to observation 57.