ARCHAEOLOGICAL IMPACT ASSESSMENT THE PROPOSED MONT ROUGE GOLF RESERVE NEAR VAN WYKSDORP LADISMITH DISTRICT WESTERN CAPE

Prepared for

Sharples Environmental Services cc

Att: Mr John Sharples 102 Merriman Street George, 6530

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On behalf of

Assegaay Bosch Ranch (Pty) Ltd

Ву



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> OCTOBER 2011

DECLARATION OF INDEPENDENCE

I, Jonathan Michael Kaplan, declare that I am an independent consultant, and that I am financially independent of the client and their consultants, and that all opinions expressed in this report are substantially my own.

Jonathan Kaplan

Abridged CV

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University of Cape Town, South Africa. MA (Archaeology) 1989

Since 1991 I have been working as an independent heritage consultant specialising in Archaeological Impact Assessment with a focus on pre-colonial Stone Age, Herder and Rock Art studies.

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Executive summary

Sharples Environmental Services cc requested that the Agency for Cultural Resource Management (ACRM) conduct an Archaeological Impact Assessment (AIA) for the proposed Mont Rouge Golf Reserve near Van Wyksdorp in the Klein Karoo region of the Western Cape.

The study area is situated about 7 kms north east of the small village of Van Wyksdorp in the Ladismith District. From the N2 Van Wyksdorp is accessed via either Herbertsdale or Riversdale, and from the R62, access is via the R357, about 40 kms south of Calitzdorp. The region is very rugged and hilly. The Groot Rivier is a prominent landscape feature that cuts through the numerous farms that make up the study area.

The proposed development, which entails the rezoning, subdivision and consolidation of some 38 Farms, comprises the development of an 18 hole, golf course, and the construction of 33 housing units within the Assegaay Bosch Nature Reserve. An extensive agricultural component (olive production) is also envisaged alongside the river.

The proposed golf course will be located in old agriculture lands (Lucerne and onion fields) on alluvial soils alongside the Groot Rivier, while about 4.0 ha of previously disturbed veld on the southern bank of the river will also be compromised.

The proposed 33 housing units will be dispersed over 10 000 ha of Wilderness area and have been carefully chosen to ensure minimal impact on the natural environment. The current zonings of the affected landholdings are Agriculture I. The landholdings will retain their zoning status but will only allow for the construction of one dwelling p/landholding.

A Phase 1 Heritage Impact Assessment (HIA) of the proposed Mont Rouge Golf Reserve was done by heritage practitioner Mr Ron Martin in 2010 (revised in 2011), but an AIA of the proposed development activities was not done at the time. A Record of Decision from Heritage Western Cape (HWC) was issued on 08 December, 2010, requesting that a Cultural Landscape study be undertaken.

In a letter to Mr John Sharples of Sharples Environmental Services dated 06 September 2011, responding to a report by specialist botanist Mr Jan Vlok, HWC noted that a qualified archaeologist must confirm the presence or absence of any archaeological remains in the footprint area of the proposed housing units. In addition, HWC requested that a Visual Impact Assessment (VIA) of the proposed housing development must also be done.

ACRM was subsequently commissioned to confirm the presence/absence of any archaeological remains that may occur in the footprint area of the proposed housing development. While not requested to do so, an AIA of the proposed golf course was also done.

PHS Consulting were commissioned to undertake the VIA. Dr John Almond was also requested by the applicant to undertake a Palaeontological Impact Assessment (PIA) of the proposed development. Dr Almond had previously undertaken a PIA Desktop study for a proposed airstrip on a portion of the affected farm.

The AIA, PIA and VIA form part of the Environmental Impact Assessment (EIA) process that is being conducted by independent environmental consultants Sharples Environmental Services.

A 3-day survey of the proposed development activities was undertaken by the archaeologist in September 2011 in which, the following findings made were made:

The proposed housing units

Low density scatters/small numbers of Middle Stone Age (MSA) quartzite flake tools, including both unmodified, and retouched/utilised flakes, flaked chunks/minimal cores, round, and flatter prepared cores, were documented in the footprint area of Housing Units 12b, 13b, 14b, 15a, 22c, 23b, 24a, 24b, 25, 26, 27a, 27b, 32b and 34a. A few MSA tools were also documented in the gravel farm road and on the steep vegetated and rocky slopes above Housing Unit 35a and 36b. No formal tools such as points or scrapers were found. One broken Early Stone Age quartzite handaxe and one ESA flake was found in the footprint area of proposed Housing Unit 13b and 3a respectively. No Later Stone Age occurrences and no organic remains such as pottery, bone or ostrich eggshell was found.

Given their small numbers, random and highly dispersed nature (the proposed housing units are situated in remote wilderness areas), the archaeological remains have been rated, as having low significance.

Several stone and clay walled (probably) shepherds huts (veewagterhuise) were also documented in the footprint areas for Housing Units 10a and 23b. Housing Unit 11a-c was not visited by the archaeologist due to time constraints, but was informed that an old ruined mud foundation occurs in the footprint area of Housing Unit 11a, which had been washed away by heavy rains that fell in the study area in June/July 2011.

It must be noted that ruins and non-ruined dwellings and built structures older than 60 and 100 years are protected under Section 34 and 35 respectively of the National Heritage Resources Act (No. 25 of 1999s) and may not be destroyed, or altered without a permit issued by Heritage Western Cape.

The proposed golf course

No archaeological remains were found in the old agricultural lands alongside the Groot Rivier, but low density scatters/small numbers of MSA quartzite flake tools were documented in the previously disturbed natural veld on the southern banks of the river (Fairways12, 15, 16 & 17). These included mostly unmodified and a few modified (i.e. utilised and retouched) flakes, flaked chunks, chunks and several large round cores. One retouched unifacial point was also found on steep vegetated slopes in the footprint area, while MSA flake tools, including one small Later Stone Age convex scraper in indurated shale was found near a small borrow pit alongside a gravel farm road. Several quartzite flakes, chunks and a large round irregular core were also found in the road.

It is interesting to note that some of the tools documented south of the river were found among large concentrations of round (river rolled) quartzite cobbles that occur alongside the gravel farm road and in the footprint area of Fairway 15. It is likely that these large

deposits of stone were especially targeted by Middle Stone Age people for their raw material qualities.

Only a few dispersed flakes and chunks were found on open patches of compact brown soils within this larger footprint area south of the Groot Rivier. No organic remains such as pottery, bone or ostrich eggshell was found.

It should also be noted that less than 4.0 ha of the previously disturbed and degraded natural veld will be impacted by the proposed golf course development and associated activities that includes putting greens, golf cart tracks and t-boxes.

Given their relatively small numbers, the archaeological remains have been rated as having low significance. Although it is likely that the large concentrations of quartzite cobbles in the footprint area was targeted by MSA people for making stone tools, no evidence of any factory or workshop site was found during a fairly detailed survey of the area.

A mud and sun baked brick and stone walled building was documented alongside the golf course on the edge of the escarpment overlooking the river, but this ruined dwelling will not be impacted by the proposed development activities. The ruin was also recorded by Ron Martin in his Phase 1 HIA.

A very small, barely visible (modern) ruined structure was also documented on the edge of the footprint area of the proposed golf clubhouse. Rusted metal, fencing, daga, bricks and a wooden fence post were noted.

Overall, it is maintained that the study has captured good information of the archaeological heritage that is present in the proposed development footprint, and in the surrounding area.

It is further maintained that the proposed Mont Rouge Golf Reserve near Van Wyksdorp will not have an impact of great significance on these and potentially other archaeological remains. The AIA has identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to the proposed development commencing.

The following risk sources have, however been identified:

- Earthmoving operations and vegetation clearing may expose Middle Stone Age archaeological occurrences below the top soils, but these impacts are expected to be low.
- It is very unlikely, but unmarked human remains may be uncovered, or exposed, during road construction activities.

Indications are that in terms of archaeological heritage, the proposed activity is viable, and impacts are expected to be limited.

In archaeological terms, no fatal flaws have been identified.

The following recommendations are made:

- The project is deemed to be viable.
- No archaeological mitigation is required.
- No ruins or buildings older than 60 years may be destroyed, altered, or renovated without a permit issued by Heritage Western Cape.
- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks, these should immediately be reported to the archaeologist, or Heritage Western Cape (Ms Jenna Lavin or Mr Justin Bradfield 021 483 9543).

Table of Contents

	<u>Page</u>
Executive summary	2
1. INTRODUCTION	7
2. HERITAGE LEGISLATION	10
3. TERMS OF REFERENCE	10
4. DESCRIPTION OF THE AFFECTED ENVIRONMENT	10
 5. STUDY APPROACH 5.1 Method of survey 5.2 Constraints and limitations 5.3 Identification of potential risks 5.4 Results of the desk-top study 	15 15 15 15 16
6. RESULTS OF THE STUDY 6.1 The proposed housing development 6.2 Significance of the archaeological finds 6.3 Ruins 6.4 The proposed golf course 6.5 Significance of the archaeological finds 6.6 Ruins	16 16 16 16 19 20 21
7. DISCUSSION	23
8. RECOMMENDATIONS	24
9. REFERENCES	25
Appendix	

1. INTRODUCTION

Sharples Environmental Services on behalf of Assegaay Bosch Ranch (Pty) Ltd requested that the Agency for Cultural Resource Management conduct an Archaeological Impact Assessment (AIA) for the proposed Mont Rouge Golf Reserve near Van Wyksdorp in the Ladismith District, in the Western Cape (Figures 1 & 2).

The proposed project entails the rezoning, subdivision and consolidation of Farms 178, 1/216, 2/216, 3/216, 4/216, 5/216, 6/216, 7/216, 8/216, 9/216, 10/216, 11/216, 12/216, 15/216, 16/216, Re/216, 179, 3/215, 6/215, 7/215, 8/215, 10/215, 11/215, 16/215, 18/215, Re/215, 2/228, 25/228, 1/227, 2/227, 3/227, Re/227, 1/226, Re/226, 5/218, 1/225, 1/223 and Re/225, Ladismith, for the purpose of developing an 18 hole golf course (Open Space II), as well as the construction of 33 housing units within the larger Assegaay Bosch Nature Reserve (Figure 3). An extensive agricultural component (olive production) is also currently in operation alongside the river and is a large employment generator in a region where unemployment levels are high.

The proposed golf course will be located in old agriculture lands (Lucerne and onion fields) on alluvial soils alongside the Groot River, while some previously disturbed and degraded natural veld on the southern bank of the river will also be developed. The footprint area for the proposed golf course measures about 25 ha in extent and about 4.0 ha of the disturbed natural veld areas will be impacted by the proposed activities.

The proposed 33 dwellings, on separate cadastral units will be dispersed over nearly 10 000 ha of Wilderness area. The footprint area of each housing unit, including dwelling, access road, outbuildings, covered veranda and swimming pool will be about 500m². Renewable energy technology, such as solar panels will be used to service the units.

The current zonings of all the affected properties are Agriculture I. The landholdings will retain their zoning status, but will only allow for the construction of one dwelling p/landholding. The housing units have been carefully chosen to ensure minimal impact on the natural environment.

A Phase 1 Heritage Impact Assessment (HIA) of the proposed Mont Rouge Golf Reserve was done by heritage practitioner Mr Ron Martin in 2010, but an Archaeological Impact Assessment (AIA) of the proposed development activities was not done at the time. A Record of Decision from Heritage Western Cape (HWC) was issued on 08 December, 2010, requesting that a Cultural Landscape study be undertaken¹.

In a letter to Mr John Sharples of Sharples Environmental Services dated 06 September 2011², responding to a letter by specialist botanist Mr Jan Vlok³, Heritage Western Cape noted that a qualified archaeologist must confirm the presence or absence of any archaeological remains in the footprint area of the proposed housing units. In addition, HWC requested that a Visual Impact Assessment (VIA) of the housing component must also be done.

¹ Heritage Western Cape letter to Mr Ron Martin dated 09 September, 2009

² Heritage Western Cape letter dated 06 September, 2011

³ Regalis Environmental Services letter to Mr R. Nuke Heritage Western Cape dated 22 August, 2011.

ACRM was subsequently commissioned to confirm the presence/absence of any archaeological remains that may be impacted by the proposed housing development.

While not required to do so, the applicant requested that an AIA of the proposed golf course development also be done.

PHS Consulting were commissioned to undertake the VIA.

Dr John Almond was also requested to undertake a Palaeontological Impact Assessment (PIA) of the proposed development. Dr Almond had previously undertaken a PIA Desktop study for a proposed airstrip on a portion of the affected property (Almond 2010).

The AIA, PIA and VIA all form part of the Environmental Impact Assessment (EIA) process that is being conducted by independent environmental consultants Sharples Environmental Services.

The aim of the study is to confirm the presence/absence of archaeological remains in the proposed footprint areas for the housing units, while at the same time (even though this has not been stipulated by HWC) to locate any archaeological sites or remains that may be impacted by the planning, construction and development of the proposed golf course, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

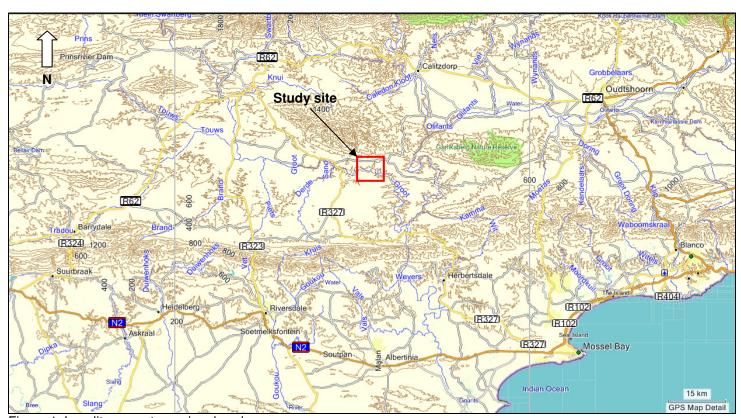


Figure 1. Locality map at a regional scale

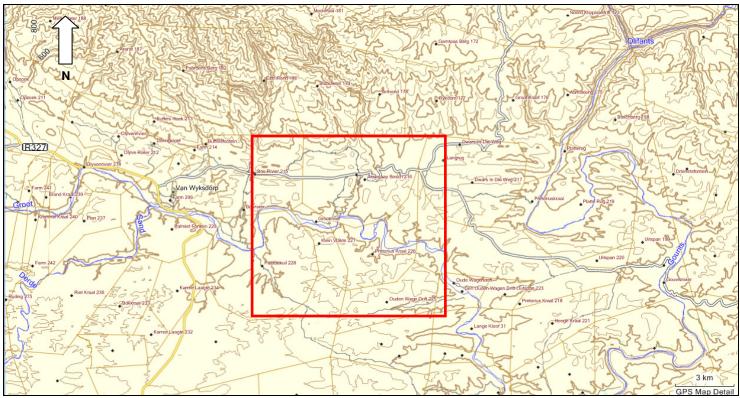


Figure 2. Locality map at a local scale



Figure 3. Proposed location sites of the housing units and layout of the proposed golf course.

2. HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources including archaeological, palaeontological, and historical material (including ruins) more than 100 years old (Section 35), human remains (Section 36), and non-ruined structures older than 60 years (Section 34). Landscapes with cultural significance are also protected.

3. TERMS OF REFERENCE

The terms of reference for the archaeological study were:

- to confirm absence/presence of archaeological remains within the footprint area of the proposed 33 housing units, and to determine whether there are likely to be any important archaeological sites within the footprint area of the proposed golf course;
- to assess the sensitivity and conservation significance of archaeological sites within the proposed development area; and
- to identify measures to protect and maintain any valuable archaeological sites that may exist within the proposed development area

4. DESCRIPTION OF THE AFFECTED ENVIRONMENT

At a regional scale, the study area is located in the Klein Karoo, north of the N2 and 'behind' the Langeberg Mountain range. The site lies to the south of the Rooiberg-Gamkaberg. The Grootrivier cuts through the study site, which flows into the larger Gouritz River. Smaller rivers such as the Assegaay Bosch and Bosrivier discharge into the Groot River. The region is very rugged and hilly.

At a local scale, the study area is situated about 7 kms north east of the small village of Van Wyksdorp. From the N2 Van Wyksdorp is accessed via either Herbertsdale or Riversdale, and from the R62, access is via the R357, about 40 kms south of Calitzdorp. Rooiberg Lodge which includes accommodation units and a restaurant is located within the study area. While the affected environment is best described as fairly remote Wilderness Area, some agricultural activity does occur. Large central pivots alongside the Groot Rivier which historically were farmed with Lucerne and onion are currently being converted to more water friendly olive plantations.

Digital photographs of the receiving environment for the proposed golf course are illustrated in Figures 4-16. As indicated, the proposed golf course will be located in old agricultural lands (onion and Lucerne fields) either side of the Grootrivier, including a small area (about 4.0 ha) of previously disturbed natural veld on the southern bank of the river. The proposed clubhouse (Figure 4), overlooking the 9th and 18th Fairway is a previously highly degraded area though much of the natural veld has reverted.

For ease of presentation, photographs of the housing units are grouped together in Plates 1-32 in the Appendix.



Figure 4. The proposed clubhouse overlooking the 18th Fairway. View facing south



Figure 5. Fairways 1 & 2 - onion fields alongside the airstrip. View facing west



Figure 6. Fairways 5 & 4 - Lucerne fields alongside the Grootrivier. View facing south east



Figure 7. Fairway 7- Lucerne fields alongside the Grootrivier. View facing south east



Figure 8. Fairways 8 & 9 - Lucerne fields alongside the Grootrivier. View facing south east



Figure 9. Groot River looking onto Fairways 9 & 18. View facing north



Figure 10. Fairway 10 - Lucerne fields alongside the Grootrivier. View facing south



Figure 11. Fairway 11 alongside the Grootrivier. View facing west



Figure 12. Fairway 13 alongside the Grootrivier. View facing north.



Figure 13. Fairway 15 on escarpment south of Grootrivier. View facing north



Figure 14. Fairway 12 on escarpment south of the Grootrivier. View facing north



Figure 15. Fairway 16 on escarpment south of the Grootrivier. View facing north east



Figure 16. Fairway 17 on escarpment south of the Grootrivier. View facing east

5. STUDY APPROACH

5.1 Method of survey

Thirty-one of the proposed 33 housing units, including most of the proposed alternative housing units (b & c) were searched or scanned for archaeological remains. Due to time constraints Housing Units 11a-c were not visited, while the location site for Housing Unit 18a was incorrectly indicated on the map provided, despite spending nearly an hour trying to locate it. An AIA of the proposed golf course development was also done. The site visit took place on the 26th, 27th and 28th September, 2011. Archaeological remains documented during the study have been recorded with a Garmin 300 GPS unit set on map datum wgs 84. A large collection of stone artefacts was also photographed. A desktop study was also done.

5.2 Constraints and limitations

Several of the proposed alternative housing units could not be accessed due to time constraints and the fact that some of the gravel roads have been washed away as a result of heavy rains that fell over the area in June/July 2011. Archaeological visibility on some of the proposed housing sites was also very poor due to dense vegetation cover. However, it is maintained that the archaeological study has captured a good record of the archaeological heritage of the study area.

5.3 Identification of potential risks

The following risk sources have been identified:

- Preparation (including vegetation clearing, earthmoving and excavation) for some of the housing sites and construction of some access roads may expose Middle Stone Age and some Early Stone Age remains below the top soils.
- It is very unlikely but unmarked human remains may be uncovered, or exposed, during bulk earthworks and excavations.

5.4 Results of the desk top study

No official archaeological work has taken place in the Van Wyksdorp area but it is known that Bushman rock paintings do occur in the mountains kloofs and river gorges north east of the town (Dr Nicolas Crisp pers. comm.). John Almond (2011) has also described the presence of the Assegaay Bosch Manganese deposit on the southern slopes of the Rooiberg, behind the Rooiberg Lodge as having significant historical and geological heritage interest. The quarry was apparently used during the Second World War.

6. RESULTS OF THE STUDY

A spreadsheet of waypoints and description of the archaeological finds is illustrated in Table 1 in the Appendix

An aerial photograph indicating the location sites of the proposed housing units and waypoints of the archaeological finds is illustrated in Figure A in the Appendix.

6.1 The proposed housing development

Low density scatters of Middle Stone Age (MSA) quartzite flake tools, including both unmodified and retouched/utilised flakes, flaked chunks/minimal cores, round and flatter prepared cores were documented in Housing Units 12b, 13b, 14b, 15a, 22c, 23b, 24a, 24b, 25a, 26a, 27a, 27b, 32b and 34a. MSA flake tools were also documented in the existing gravel farm access road and on the steep slopes above Housing Unit 35a and 36a. No MSA formal tools such as points or scrapers were found. One broken Early Stone Age (ESA) guartzite handaxe and one ESA flake was found in the footprint area of proposed Housing Unit 13b and 3a respectively. No Later Stone Age remains were found. While most of the tools documented comprise mainly small numbers of flakes and chunks. larger numbers of tools were found within the footprint area of Housing Unit 24a. in a track alongside a small stream/river. Ironically Housing Unit 24a comprises a patch of old grazing land and the remains alongside the river occur in a disturbed context. The archaeologist did notice some small overhangs in the steeper cliffs, but these were not searched. Overall, most of the tools were documented in a disturbed and degraded context such as on sheet washed and eroded slopes, near dongas, in heavily trampled and overgrazed areas, and within gravel roads, but some isolated occurrences (eq Housing Unit 27a) were clearly found in-situ. It must be noted that all the proposed housing sites were carefully chosen by the botanist to avoid sensitive veld. No organic remains such as pottery, bone or ostrich eggshell was found in any of the housing units searched and scanned.

6.2 Significance of the archaeological remains

Given their small numbers, random and dispersed nature (the proposed housing units are situated in mostly remote wilderness areas); the archaeological remains have been rated, as having low significance.

6.3 Ruins

Several stone and clay walled (probably) shepherds huts (veewagterhuise) were also documented in the footprint areas for Housing Units 10a and 23b. Housing Unit 11a-c was not visited by the archaeologist due to time constraints, but it was mentioned to the

archaeologist that an old mud foundation (no walls exist) occurs in the footprint area of Housing Unit 11a, which has been washed away by recent heavy rains.

A selection of stone artefacts located during the study is illustrated in Figures 17-30.



Figure 17. Broken handaxe Housing Unit 13b



Figure 18. MSA tools Housing Unit 13b



Figure 19. MSA flakes Housing Unit 14b



Figure 20. MSA flakes Housing Unit 15a



Figure 21. MSA tools Housing Unit 27a



Figure 22. MSA tools Housing Unit 27b



Figure 23. MSA tools Housing Unit 26a



Figure 24. MSA tools Housing Unit 25a

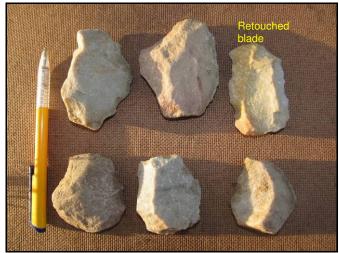


Figure 25. MSA tools Housing Unit 25a



Figure 26. MSA tools Housing Unit 24b. Scale is in cm



Figure 27. MSA tools Housing Unit 24a. Scale is in cm



Figure 28. MSA tools Housing Unit 24a. Scale is in cm



Figure 29. MSA tools Housing Unit 22c. Scale is in cm



Figure 30. MSA tools Housing Unit 32b.

6.4 The proposed golf course

A layout of the proposed golf course is illustrated in Figure 31.

No archaeological remains were documented in the agricultural lands alongside the Groot River, but a cortex core and two MSA flakes were found in some disturbed veld alongside the t-box overlooking Fairway 3. Low density scatters of MSA quartzite flake tools were, however, documented in the natural veld (Fairways 12, 15, 16 & 17) on the flat escarpment on the southern bank of the Groot River. These areas are not pristine veld though, as some disturbance, including grazing, trampling, tracks, and a small earth dam occurs in the surrounding landscape. The tools documented included mostly unmodified and a few modified (i.e. utilised and retouched) flakes, flaked chunks/minimal cores, chunks and several large round cores. One miscellaneous retouched unifacial point (607), was found on the steeper vegetated slopes in Fairway 17, while several MSA flake tools, including one small Later Stone Age miscellaneous retouched flake (possibly a convex scraper) in indurated shale (608) was found near a borrow pit alongside a gravel farm road to the south of Fairway 16. Several quartz flakes, chunks and a large core were also found in the gravel road that dips down toward Fairway 13.

Most of the tools (602) in this area were found among much larger concentrations of round river, rolled quartzite stone that occur alongside the gravel farm road and in the footprint area of Fairway 15, and it is very likely that the stone was specifically targeted by MSA people for its raw material qualities. Some dispersed flakes and chunks were found on open patches of compact brown soils within the larger footprint area between Fairways 12 and 15. No organic remains such as pottery, bone or ostrich eggshell was found.

6.5 Significance of the archaeological remains

Given their relatively small numbers and dispersed nature, the archaeological remains have been rated, as having low significance. Although it is likely that the quartzite cobbles in Fairway 15 was targeted by people for making stone tools, no evidence of any factory or workshop site was noted during a fairly comprehensive survey of the area.

A collection of stone implements and the context in which some of them were found is illustrated in Figures 32-41.



Figure 31. Proposed layout of the Mont Rouge Golf Course

6.6 Ruins

A very small, barely visible (modern) ruined structure was documented on the edge of the footprint area of the proposed golf course clubhouse (Figure 42). Rusted metal farming implements, an old fence post, wire fencing, sun dried bricks, and some clay daga were noted.

A mud and sun baked brick and stone walled building was also documented alongside Fairway 12 (Figure 43) on the edge of the escarpment overlooking the river, but this ruined dwelling will not be impacted by the proposed development activities. The ruin was also noted by Ron Martin (2010) in his Phase I HIA. The surrounding area is quite disturbed and degraded, and the remains of a small earth dam, diggings and spoil dumps occur about 30 m to the south of the ruin.



Figure 32. Flakes and cortex core (585) overlooking Fairway 3. Scale is in cm



Figure 33. MSA tools (602) Fairway 15. Scale is in cm



Figure 34. Round cores (602) Fairway 15. Scale is in cm



Figure 35. MSA tools (602) Fairway 15. Scale is in cm



Figure 36. MSA tools (603) between Fairway 12 & 16. Scale is in cm



Figure 37. MSA tools (607) Fairway 16 & 17. Scale is in cm



Figure 38. Concentration of quartzite stone, Fairway 15 view facing south east



Figure 39. Concentration of quartzite stone, Fairway 15 View facing south



Figure 40. MSA tools (607) Fairway 16 & 17. Scale is in cm



Figure 41. MSA tools from alongside borrow pit, including unifacial point (607). Scale is in cm



Figure 42. Modern stone ruin within footprint area of proposed golf course club house. Note fence post in the foreground.



Figure 43. Stone ruin on edge of Fairway 12. Also documented by Martin (2010)

7. DISCUSSION

It is maintained that the study has captured good information on the archaeological heritage that is present in the proposed development footprint and in the surrounding area.

Overall, it is argued that the proposed Mont Rouge development near Van Wyksdorp <u>will</u> <u>not</u> have an impact of great significance on these and potentially other archaeological remains.

The Archaeological Impact Assessment has therefore identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to the proposed development commencing.

Earthmoving operations and vegetation clearing may expose Middle and some Early Stone Age archaeological occurrences below the top soils, but these impacts are expected to be low.

It is very unlikely, but unmarked human remains may be uncovered, or exposed, during road construction activities.

Indications are that in terms of archaeological heritage, the proposed activity is viable, and impacts are expected to be limited.

In archaeological terms, no fatal flaws have been identified.

It must be noted that ruins and non-ruined dwellings and built structures older than 60 and 100 years are protected under Section 34 and 35 of the National Heritage Resources Act (No. 25 of 1999s) respectively and may not be destroyed, or altered without a permit issued by Heritage Western Cape.

8. RECOMMENDATIONS

With regard to the proposed Mont Rouge Golf Reserve that includes the development of an 18-hole golf course, and 33 housing units within the Assegaay Bosch Nature Reserve, the following recommendations are made:

- The project is deemed to be viable.
- No archaeological mitigation is required.
- No ruins or buildings older than 60 years may be destroyed, altered, or renovated without a permit issued by Heritage Western Cape.
- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks, these should immediately be reported to the archaeologist, or Heritage Western Cape (Ms Jenna Lavin or Mr Justin Bradfield 021 483 9543).

9. REFERENCES

Almond, J. 2011. Palaeontological Impact Assessment – Combined Field Assessment and Desktop Study. Proposed Mount Rouge Golf Reserve near Van Wyksdorp, Kannaland Municipal Area, Western Cape Province. Report prepared for Sharples Environmental Services. Natura viva cc. Cape Town

Almond, J. 2010. Palaeontological Impact Assessment – Desk top study. Airstrip on Farm Kleinvlakte No 227 / Portion 1 near Van Wyksdorp, Kannaland Municipal Area, Western Cape Province. Report prepared for Assegaay Bosch Ranch (Pty) Ltd. Natura viva cc. Cape Town.

Martin, R. 2010. Phase 1 Heritage Impact Assessment Mont Rouge Golf Reserve, Ladismith Magisterial District. Report prepared for Assegaay Bosch Ranch (Pty) Ltd c/o Sharples Environmental Services. Ron Martin Heritage Consultancy

Appendix



Plate 1. Housing Unit 6a



Plate 2. Housing Unit 5a



Plate 3. Housing Unit 4b



Plate 4. Housing Unit 1a



Plate 5. Housing Unit 3a



Plate 6. Housing Unit 2a



Plate 7. Housing Unit 13c



Plate 8. Housing Unit 13b



Plate 9. Housing Unit 14a

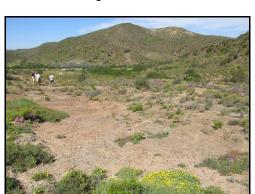


Plate 10. Housing Unit 14b



Plate 11. Housing Unit15a



Plate 12. Housing Unit 15b



Plate 13. Housing Unit 27b



Plate 14. Housing Unit 27a



Plate 15. Housing Unit 26



Plate 16. Housing Unit 25



Plate 17. Housing Unit 8



Plate 18. Housing Unit 9a



Plate 19. Housing Unit 9b



Plate 20. Housing Unit 10



Plate 21. Housing Unit 12 a (not visited)



Plate 22. Housing Unit 12b



Plate 23. Housing Unit 23b



Plate 24. Housing Unit 23a



Plate 25. Housing Unit 24b



Plate 26. Housing Unit 24a



Plate 27. Housing Unit 22c



Plate 28. Housing Unit 22a



Plate 29. Housing Unit 28a



Plate 30. Housing Unit 29a



Plate 31. Housing Unit 31b



Plate 32. Housing Unit 32b



Plate 33. Housing Unit 33a



Plate 34. Housing Unit 34a



Plate 35. Housing Unit 35a



Plate 36. Housing Unit 36a

Site	Name of Farm	Lat/Long	Description of finds
	Farm 216/2, Van Wyksdorp		'
Housing Units			
Housing Unit 7 Rooiberg Lodge & exiting buildings		S33 43.666 E21 33.594	No archaeological remains found
Housing Unit 6a		S33 43.720 E21 33.315	No archaeological remains found
Housing Unit 5a		S33 43.786 E21 33.076	No archaeological remains found
Housing Unit 4b		S33 43.827 E21 32.897	No archaeological remains found
Housing Unit 4a		S33 43.749 E21 32.769	No archaeological remains found
Housing Unit 3a		S33 43.699 E21 32.572	ESA quartzite flake
Housing Unit 2a		S33 43.693 E21 32.508	No archaeological remains found
Housing Unit 1a		S33 43.643 E21 32.212	No archaeological remains found
Housing Unit 13c		S33 43.496 E21 31.914	No archaeological remains found
Housing Unit 13b		S33 43.972 E21 31.972	One broken ESA handaxe and low density scatter of MSA quartzite flakes. Surrounding area heavily grazed and trampled.
Housing Unit 14a		S33 44.487 E21 30.062	No archaeological remains found
Housing Unit 14c		S33 44.963 E21 30.016	2 flakes and 1 bifacial flake in gravel road to site
Housing Unit 14b		S33 44.593 E21 31.544	Existing house (occupied)
Housing Unit 15a		S33 44.583 E21 31.579	MSA utilised flake with partially retouched tip and smaller blunt MSA flake
Housing Unit 15b		S33 44.580 E21 31.583	1 MSA flake and 1 flat core/flake
Housing Unit 17c		S33 44.685 E21 31.611	Quartzite flake
Housing Unit 17b		S33 44.683 E21 31.633	Quartzite flake/flat worked out core
Housing Unit 271			Scatter of MSA tools on patches of trampled and compact brown soils
Housing Unit 27b		S33 46.203 E21 32.908	Scatter of MSA tools on stony vegetated slopes
Housing Unit 26a		S33 46.393 E21 32.131	Low density scatter of MSA tools on flat stony ground. Dense vegetation in surrounding area
Housing Unit 25a		S33 46.571 E21 32.009	Scatter of MSA tools, including retouched blade on stony vegetated slopes and in road
Housing Unit 8a		S33 43.726 E21 33.954	No archaeological remains, surrounding area heavily disturbed
Housing Unit 9a		S33 43.987 E21 34.808	Possible MSA flake
Housing Unit 9b		S33 43.703 E21 34.715	No archaeological remains
Housing Unit 10a		S33 43.495 E21 35.334	No archaeological remains, but lovely stone built dwelling
Housing Unit 12b		S33 43.699 E21 35.986	Low density scatter of MSA tools, including 1 silcrete flake on trampled and grazed ground. Sheet wash and erosion. A few flakes embedded in compact brown soils
Housing Unit 23b		S33 44.899 E21 35.348	Stone ruin (shepherds' hut). Several quartzite flakes in road alongside small stream
Housing Unit 23a		S33 45.005 E21 35.322	A few quartzite flakes on slopes

			leading to site. Lots of erosion & deep
			dongas
Housing Unit 24b		S33 45.149 E21 35.660	Low density scatter of MSA flakes, including retouched flake, large utilised blade, flake blades and chunks on eroded and sheet washed slopes alongside gravel road.
Housing Unit 24a		S33 45.327 E21 35.724	Relatively large number of MSA flakes and chunks on overgrazed path of land, and in small track alongside river
Housing Unit 22c		S33 44.960 E21 34.949	A few MSA flakes and large chunks/flaked chunks/minimal cores on sheet washed slopes in footprint area, and alongside road
Housing Unit 22a		S33 45.340 E21 34.697	No archaeological remains found
Housing Unit 28a		S33 46.983 E21 32.880	Broken MSA flake on sheet washed, eroded slopes
Housing Unit 29a		S33 47.423 E21 34.143	No archaeological remains found
Housing Unit 31b		S33 47.455 E21 34.662	No archaeological remains found
Housing Unit 32b		S33 47.254 E21 35.216	Low density scatter of MSA flakes, chunks, flaked chunk/minimal core, side retouched flake (?scraper), large core and 1 ESA flake on very rocky and fairly steep vegetated slopes and in surrounding area which is very stony and covered in round quartzite cobbles
Housing Unit 33a		S33 47.188 E21 35.586	Several MSA quartzite flakes, a flaked chunk/minimal core, large round core, and bashed cobble, on steep vegetated slopes
Housing Unit 34a		S33 47.513 E21 35.897	No archaeological remains found
Housing Unit 35a		S33 47.208 E21 36.357	MSA quartzite flakes and chunk in road and on steep slopes leading to site
Housing Unit 36a		S33 47.613 E21 36.563	No archaeological remains found
Housing Unit 20b		S33 44.998 E21 33.705	A few MSA quartzite flakes occur in existing gravel access road
Housing Unit 16b		S33 44.702 E21 33.781	No archaeological remains
Housing Unit 16a		S33 44.678 E21 33.849	No archaeological remains
Housing Unit 19a		S33 45.223 E21 31.732	A few MSA tools in the gravel road and footprint area on the edge of the escarpment overlooking the Grootrivier
Housing Unit 11a-c	Not visited due to time constraints		
Housing Unit 18a	Location site incorrectly indicated on map		MSA flakes and chunks, x 2 round cores counted in wide area while searching for location site
Proposed Golf course			
Club house		S33 45.676 E21 32.905	No archaeological remains found. Site is degraded (diggings, spoil dumps), but covered in recovered veld
Ruins		S33 45.677 E21 32.921	Remains of a small modern ruin in the footprint area of clubhouse. Metal

		farming implements, old fence post, wire fencing, sun dried bricks, and some clay daga
585	S33 45.642 E21 32.342	Cortex core, x 2 MSA flakes near t-box Fairway 3
601	S33 45.766 E21 33.809	A few dispersed quartzite flakes, 1 blade, chunks and round core in gravel road
602	S33 45.782 E21 33.808	Low density scatter of quartzite flakes, chunks, flaked chunks/minimal cores and several larger round cores occur among dense concentrations of river rolled quartzite stone (Fairway 15).
603	S33 45.761 E21 33.778	Isolated and dispersed MS flakes and chunks on compact soils within footprint area between Fairways 15 and 12
607	S33 45.716 E21 33.417	Very dispersed scatter of quartzite flakes, chunks, x 1 large round core, unifacial retouched point on steeper vegetated and loose rocky slopes within footprint area of Fairway 16 & 17.
608	S33 45.726 E21 33.595	MSA flakes, chunks, a core and LSA indurated shale convex scraper near borrow pit alongside road.
Ruin	S33 45.664 E21 33.638	Ruined clay building with stone walling – also recorded by Ron Martin (2010)

Table 1. Spreadsheet of waypoints and description of archaeological finds



Figure A. Aerial photograph illustrating the Housing Units visited and waypoints of archaeological finds