

HERITAGE IMPACT ASSESSMENT

PROPOSED ESTABLISHMENT OF VINEYARDS ON REMAINDER FARM 585 CALEDON, OVERSTRAND LOCAL MUNICIPALITY HEMEL EN AARDE VALLEY WESTERN CAPE

Assessment conducted under Section 38 (3) of the National Heritage Resource
Act (No. 25 of 1999)

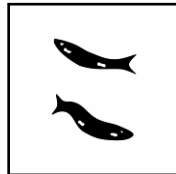
Prepared for

LORNAY ENVIRONMENTAL CONSULTING

Applicant

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Executive summary

1. Site Name

Proposed establishment of vineyards on Remainder Farm 365 Caledon, Overstand Municipality, Western Cape.

2. Site location

Mountain Rose farm is, located in the lower Hemel en Aarde Valley, off the R320, near Hermanus

3. GPS Co-ordinates

34°23'1.14"S 19°14'33.88"E

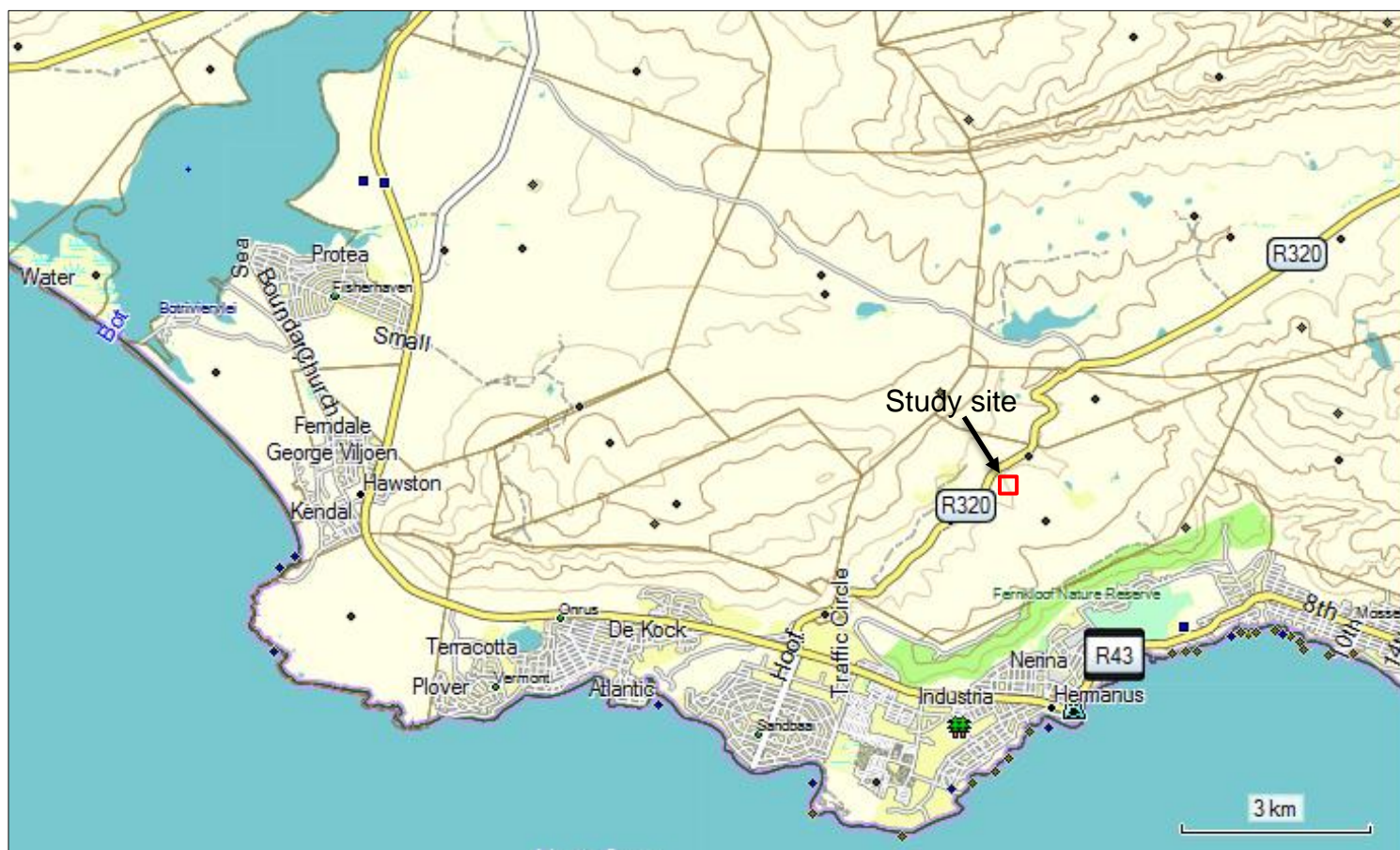


Figure 1. Locality map indicating the location of the proposed development site (red polygon) in the lower Hemel en Aarde Valley near Hermanus. Arrow indicates the study site



Figure 2. Google satellite map illustrating the location of the proposed development site (red polygon), near Hermanus

4. The development proposal

The proposed development entails the removal of ± 19 ha of mostly fynbos vegetation, and the establishment of vineyards for, the production of wine. Infrastructure required for the development will entail standard irrigation equipment, trellising for vineyards, drilling of one or two boreholes and a small shed and store for implements. The production of wine will take place off-site.

5. Aim of the HIA

The overall purpose of the HIA is to assess the sensitivity of archaeological resources in the proposed development site, to determine the potential impacts of development on such resources, and to minimise such impacts by means of management and/or mitigation measures.

Lornay Environmental Consulting is the appointed Environmental Assessment Practitioner responsible for facilitating environmental authorisation of the project.

An Environmental Basic Assessment (BA) process will be undertaken for the application.

6. Heritage resources identified

6.1 Archaeology

- A large, weathered Early Stone Age (ESA) quartzite chunk/minimal core, and two smaller quartzite chunks were recorded during the field assessment.

The isolated context in which they were found means that the remains are graded as Not Conservation Worthy (NCW).

6.2 Palaeontology

According to consulting palaeontologist, John Pether (2022), the Hemel en Aarde area is situated within the folded and faulted southern part of the Cape Fold Belt. The easternmost proposed new vineyards upslope are on the Rietvlei Formation which is the uppermost formation of the erosion-resistant sandstones of the Table Mountain Group. Most of the proposed vineyards are on the succeeding Ceres Subgroup of the lower Bokkeveld Group shaley mudrocks.

The fossils in the Rietvlei Fm strata comprise a diverse shelly invertebrate biota (trilobites, molluscs, brachiopods, echinoderms *etc.*) and trace fossils, rare fish remains, plants and microfossils. The overall palaeontological sensitivity is high (Rietvlei Fm.) to very, high (Ceres Subgroup).

However, due to the monotonous nature of the shale accumulation, the lack of exposures in the denuded, weathered landscape and intense deformation associated with the tectonic forces from the south that pushed up the Cape Fold Belt mountains, the likelihood of the proposed establishment of vineyards having a palaeontological impact on the deformed and weathered bedrock is regarded as being negligible (Pether 2022).

6.3 Graves

No tangible evidence of the Leper Colony graveyard (1823) was encountered during the field assessment. A leper colony was established in the Hemel en Aarde valley by the Cape Colonial Government in 1817, which was run by the Moravian Missionaries from Genadendal. The actual graveyard, on Farm 586, was never physically identified or mapped during the Overstrand Heritage Survey (Baumann 2009), only the 'approximate boundary', and it is speculated by the writer that the graveyard may be located on more level, ground among the dense stand of Blue Gum trees alongside Hemel en Aarde Road.

6.4 Built environment

No buildings, structures or features will be impacted by the proposed vineyard development.

6.5 Cultural landscape

Agriculture (vineyards) dominate the Cultural Landscape. The proposed development will therefore complement the surrounding land use.

6.6 Visual impact

The establishment of vineyards on Rem Farm 585 will result in a Low visual impact.

6.7 Socio economic impact

Significant and sustainable employment opportunities will be created by the proposed development.

7. Comments from registered conservation bodies, Hermanus Local Municipality, and Interested and Affected Parties

Comments will be included in the Final HIA report to be submitted to Heritage Western Cape.

8. Conclusion

8.1 Archaeology

The proposed establishment of vineyards on the Rem Farm 585 Caledon, in the lower Hemel en Aarde Valley does not pose a threat to local archaeological heritage resources. The proposed development will complement the surrounding land use.

From an archaeological perspective, there are no objections to the authorization of the proposed activities.

8.2 Palaeontology

According to Pether (2022:1), 'the likelihood of the (proposed) activity having a palaeontological impact is negligible'.

9. Recommendations

1. No archaeological mitigation is required.

2. If any unmarked human remains are disturbed, or uncovered during bulk earthworks, these must immediately be reported to Heritage Western Cape (Ms. Stephanie Barnardt 021 483 96 85).

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1. INTRODUCTION

ACRM was appointed by Lornay Consulting, on behalf of Hermann Boeddinghaus, to conduct a Heritage Impact Assessment (HIA) for a proposed vineyard development on Rem Farm 585 in the lower Hemel en Aarde Valley (Overstrand Municipality), near Hermanus in the Western Cape (Figures 1 & 2).



Figure 1. Locality map indicating the location of the proposed development site (red polygon) in the lower Hemel en Aarde Valley near Hermanus. Arrow indicates the study site



Figure 2. Google satellite map illustrating the location (red polygon) of the proposed development site near Hermanus

2. THE DEVELOPMENT PROPOSAL

The proposed development entails the removal of ± 19 ha of mostly Fynbos vegetation, and the establishment of vineyards for the production of wine. Infrastructure required for the development will entail standard irrigation equipment, trellising for vineyards, drilling of one or two boreholes, and a small shed and store for implements. The production of wine will take place off-site. No other infrastructure will be required for the project.

3. TERMS OF REFERENCE

The terms of reference for the archaeological study were to:

- Determine whether there are likely to be any important archaeological resources that may be impacted by the proposed development,
- Indicate any constraints that would need to be taken, into account in considering the development proposal, and
- Recommend mitigation action.

4. HERITAGE LEGISLATION

The National Heritage Resources Act (NHRA No. 25 of 1999) protects archaeological and palaeontological sites and materials, as well as graves/cemeteries, battlefield sites and buildings, structures and features over 60 years old. The South African Heritage Resources Agency (SAHRA) administers this legislation nationally, with Heritage Resources Agencies acting at provincial level.

According to the Act (Sect. 35), it is an offence to destroy, damage, excavate, alter or remove from its original place, or collect, any archaeological, palaeontological and historical material or object, without a permit issued by the SAHRA or applicable Provincial Heritage Resources Agency, viz. Heritage Western Cape (HWC).

Notification of HWC is required for proposed developments exceeding certain dimensions (Sect. 38), upon which they will decide whether or not the development must be assessed for heritage impacts (an HIA) that may include an assessment of archaeological (a AIA) heritage.

5. STUDY SITE

Mountain Rose Farm is located south of the R320 in the lower Hemel en Aarde Valley, near Hermanus (Figure 3). The Hamilton Russel wine farm borders the property in the south, while the Bouchard Finlayson farm neighbors the property to the north. The affected landholdings were cultivated more than 40 years ago but have, with certain exceptions in the late 1990's and early 2000s have remained fallow and undeveloped. Old plough lines and terracing can still be seen on Google Earth aerial satellite imagery. Surrounding land use is agriculture (mostly vineyards), wilderness, tourism, restaurants, wine farms, residential and recreational (e. g. mountain biking). The R320 between Hermanus and Caledon is a recognized tourist scenic route.

Site A, at about 2.5ha in extent, is a narrow strip of strip of land in the east of the farm, covered in extremely dense Fynbos vegetation (Figures 4-7). A few large Pine trees occur sporadically in places. There are no excavations, or sign of any disturbance on the proposed development site which slopes gently to the south. There are no significant landscape features such as rocky outcrops occurring on the proposed site.

Site B, at about 16.5ha in extent, is located on either side of the gravel farm road, as one enters the property from the R320. The northern portion of the proposed development site slopes gently toward the R320 and is covered in dense Fynbos vegetation (Figures 8-10). Large Blue Gum trees have been removed from the lower end of the site. There is a barely visible twee spoor road that cuts across the site, as well as an old mountain bike track. An Eskom, servitude cuts across the lower portion of the site. There are no excavations or landscape features occurring on the proposed site.

The affected landholding south of the gravel entrance road slopes steeply to the south, and is similarly covered in extremely dense, almost impenetrable Fynbos and grassland vegetation (Figures 11-14). Invasive Black Wattle has been removed from the lower end of the site. A farm road splits the lower portion in two. The (above) Eskom servitude also crosses the property in the west. There are no excavations or significant landscape features on the proposed development site.



Figure 3. Google satellite map indicating the proposed application area (A & B)



Figure 4. Site A. View facing east.



Figure 5. Site A. View facing east



Figure 6. Site A. View facing southwest.



Figure 9. Site B. Northern Portion



Figure 7. Site A. View facing southwest.



Figure 10. Site B, Northern Portion



Figure 8. Site B. Northern Portion



Figure 11. Site B. Southern Portion. View facing east



Figure 12. Site B southern portion. View facing southwest.



Figure 13. Site B southern portion. View facing southwest.



Figure 14. Site B southern portion. Panoramic view of the site facing southwest

6. STUDY APPROACH

6.1 Method

The purpose of the study is to assess the sensitivity of archaeological resources in the proposed development site, to determine potential impact of a vineyard development on such resources, and to avoid and/or minimize such impacts by means of management and/or mitigation measures.

The significance of archaeological resources was assessed in terms of their content and context. Attributes considered in determining significance include artefact types, rarity of

finds, exceptional items, organic preservation, potential for future research, density of finds and the context in which archaeological traces occur.

Archaeological resources were plotted using a handheld Garmin Oregon 700 GPS unit set on the map datum wgs 84.

A track path of the survey was also captured.

A literature survey was conducted to assess the archaeological context surrounding the proposed development site.

6.2 Constraints and limitations

Site A and B are covered in extremely dense Fynbos vegetation, resulting in very low archaeological visibility.

6.3 Identification of potential risks

The results of the study indicate that there are no significant archaeological risks associated with the proposed establishment of vineyards on Rem Farm 585, Caledon.

7. ARCHAEOLOGICAL CONTEXT

The coastal zone between Hermanus and Hawston is a known sensitive and threatened archaeological landscape (Kaplan 1993). The rocky shoreline here would have been attractive to Later Stone Age (LSA) hunter-gatherers, who harvested the abundant coastal resources, particularly shellfish. Several rivers, streams, and pans in the back dune area also provided fresh water.

Shell middens have been recorded at Hoek van de Berg, Mudge Point, Nuwebaai, Vermont, Onrus, Sandbaai, Schulphoek, Swartdam, Hermanus and Voelklip (Hart & Halkett 2005; Kaplan 2013, 2004a, 1993; Rudner 1968). Campsites with shellfish remains, stone artefacts, ostrich eggshell and pottery beneath the shelter of large Milkwood trees have been recorded at near Sandbaai (Kaplan 2004b), Hermanus (Kaplan 2007) and Hoek van der Berg (Kaplan 2013). Most of the shell middens probably date to the period between 5000 and 3000 years ago, but the presence of pottery on some of the sites indicates that hunter-gatherers and possibly even Khoi Herders were living in the area within the last 2000 years.

Inland of the coast, Early Stone Age (ESA) and Middle Stone Age (MSA) tools have been documented on the slopes of the Onrus Mountains near Hawston (Kaplan 2005, 2015), as well as among colluvial gravels at Fisherhaven (Kaplan 2006) and Benguela Cove overlooking the Bot River Lagoon (Kaplan 2003b), and in the Fernkloof Nature Reserve (Kaplan 2004b).

In the Hemel en Aarde Valley, ESA tools including handaxes, choppers, large cores and flakes have also been recorded in vineyards and old agricultural lands on Portions 4, 6 11 and 17 of Farm 585 (Kaplan 2018), and alongside the R320 (Kaplan 2004b, 2010a; Orton 2010).

A collection of handaxes and bifaces from the Hamilton Russel farm are on display at the Southern Right Farm wine tasting cellar (Kaplan 2018).

In more recent historical times, the Onrus River valley was the main route used by Khoikhoi/Cape Herders to move from the inland Caledon area to the coast annually. This narrow gorge was named Attaquaskloof after a Chainoqua Khoikhoi chief who was encountered by settlers in the 18th Century (Aikman 2023).

8. HISTORICAL CONTEXT

Most, of the historical information described below was sourced from the Overstrand Heritage Survey, prepared by the Overstrand Heritage Landscape Group (Baumann 2009).

Hemel and Aarde Valley, comprising Portions of Farm 584, **585**, 586 and 587 was previously known as Attaquaskloof.

The first settler was granted a loan farm in the valley in 1739. There followed numerous land grants from the VOC (or Dutch East India Company). These farms were used for the grazing of livestock. Wheat was later planted, which was replaced by vineyards in the 1970s.

A leper institution, comprising a mixed community of soldiers, slaves, Khoekhoen, Christians, and Muslims was established in the valley by the Cape Colonial Government in 1817. The colony was run by the Moravian Missionaries from Genadendal. By then Attaquaskloof had been renamed the Hemel En Aarde Valley. A hospital and a Stewards House were erected on Farm 586 in 1818. According to Baumann (2009), the buildings were still visible as ruins in 1995.

The site of the leper colony hospital and the mission house (1814-1846) is situated on the lower half of the farm called Vrede (Farm 586/2). The upper portion was called Volmoed (Farm 586/6) which is now Bouchard Finlayson Wineries and according to Baumann (2009), is the portion of the farm on which a Leper Colony graveyard is located. The graveyard comprises an estimated four hundred graves of lepers who died between 1823 and 1846. The R320/Hemel en Aarde road to Caledon separates the site of the hospital/mission residence from the graveyard.

The track that linked the Overberg town of Caledon to Hermanus and to the settlement of Tesselaarsdal remained as a gravel road until 2012 when major civil engineering works were undertaken, and the historic but circuitous Shaw's Mountain Pass was abandoned and a new section of the R320 was constructed. Work on further upgrading of the R320 will be completed in 2023 (Aikman 2023).

It was not until 1976 that the first vineyards in the valley were laid out by Tim Hamilton Russel on the 170ha Farm Braemar. The family later planted olives and began producing olive oil. Other wineries were established, notably Bouchard Finlayson and Newton Johnson (Aikman 2023).

9. FINDINGS

9.1 Archaeology

A field assessment was conducted on the 11th of August 2022, in which the following observations were made (Figure 15).

A weathered, ESA chunk/minimal core (Point 152) was found alongside an isolated Pine tree outside the proposed development footprint area (Figure 16).

Two isolated quartz chunks were found in Site B, north of the gravel entrance road (Figure 17).

The isolated context in which they were found mean that the archaeological resources have been graded as Not Conservation Worthy (NCW).



Figure 15. Trackpaths (in blue) and waypoints of archaeological finds

Point	Name of Farm	Lat/Long	Description of finds	Grading
	Rem Farm 85 Caledon			
152		S34° 23.002' E19° 14.763'	Weathered ESA quartzite chunk/minimal core	NCW
142		S34° 22.963' E19° 14.700'	Quartzite chunk	NCW
171		S34° 22.960' E19° 14.683'	Quartzite chunk	NCW

Table 1. Spreadsheet of waypoints and description of archaeological finds



Figure 16. ESA chunk/minimal core. Scale is in cm.



Figure 17. Quartzite chunks. Scale is in cm.

9.2 Palaeontology

According to Pether (2022), the Hemel en Aarde area is situated within the folded and faulted southern part of the Cape Fold Belt (Figure 18). The easternmost proposed new vineyards upslope are on the Rietvlei Formation which is the uppermost formation of the erosion-resistant sandstones of the Table Mountain Group. Most of the proposed vineyards are on the succeeding Ceres Subgroup of the lower Bokkeveld Group shaley mudrocks.

The fossils in the Rietvlei Fm strata comprise a diverse shelly invertebrate biota (trilobites, molluscs, brachiopods, echinoderms *etc.*) and trace fossils, rare fish remains, plants and microfossils. The overall palaeontological sensitivity is high (Rietvlei Fm.) to very high (Ceres Subgroup) (Figure 19).

However, due to the monotonous nature of the shale accumulation, the lack of exposures in the denuded, weathered landscape and intense deformation associated with the tectonic forces from the south that pushed up the Cape Fold Belt mountains, 'the likelihood of the proposed establishment of vineyards having a palaeontological impact on the deformed and weathered bedrock is regarded as being negligible (Pether 2022:1)'.

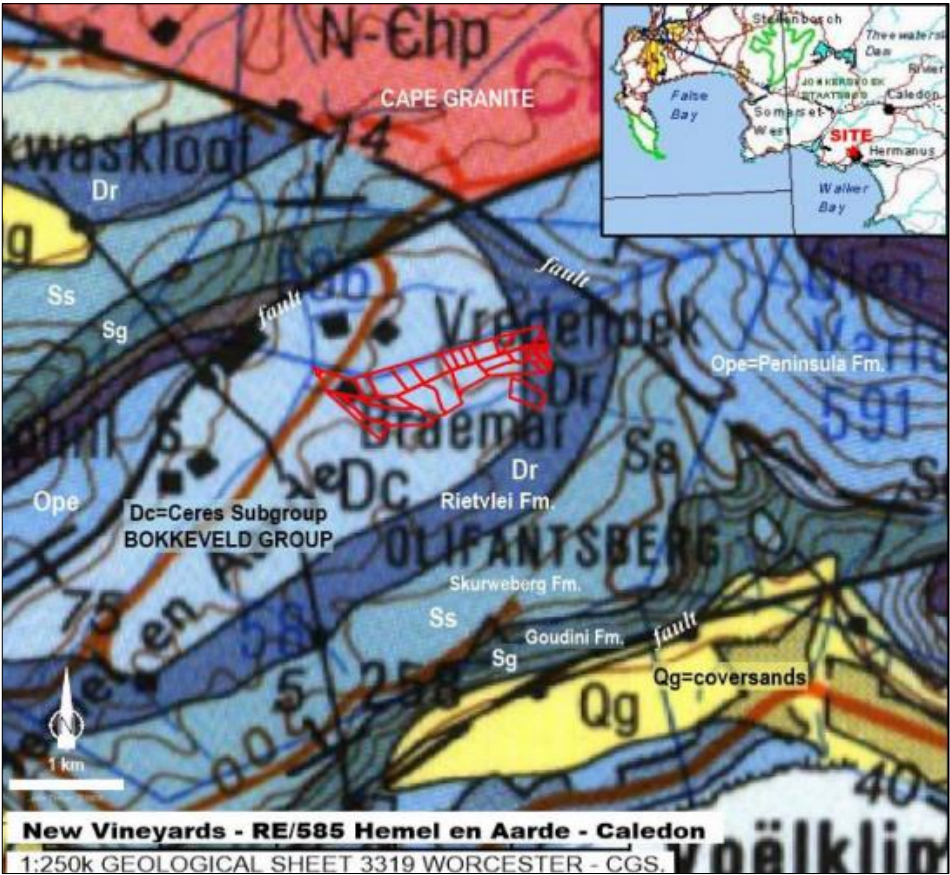


Figure 18. Geological context of the proposed development (Pether 2022)

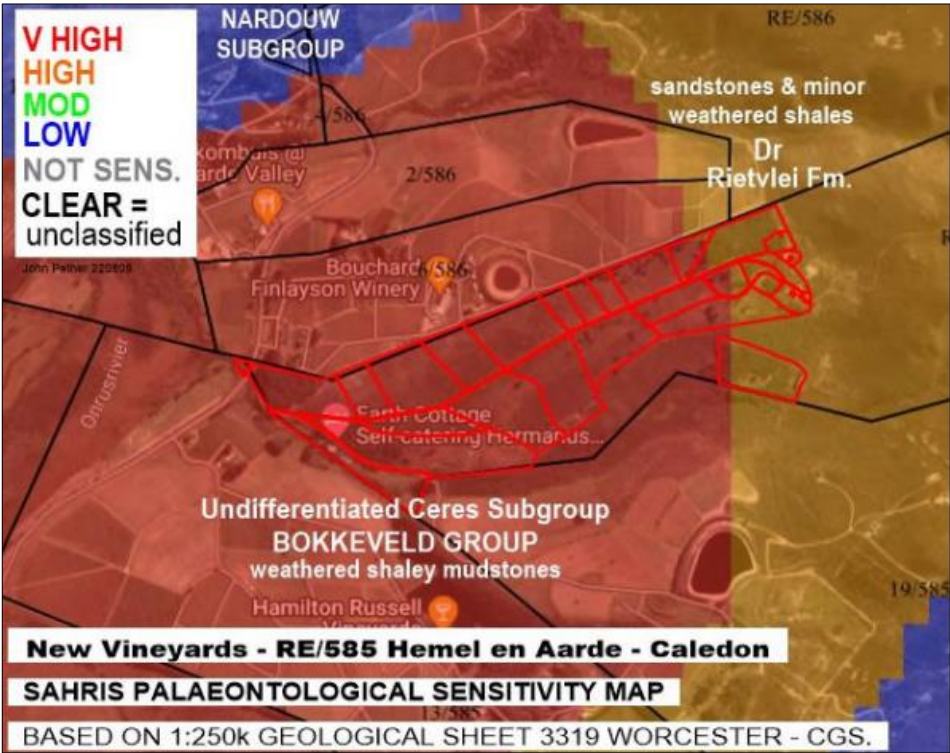


Figure 19. Palaeontological sensitivities of formations in the study area (Pether 2022)

9.3 Graves

No tangible evidence of a Leper Colony graveyard (1823) was encountered during the field assessment. The actual graveyard, on Farm 586, was never physically identified or mapped during the Overstrand Heritage Survey (Baumann 2009), only the 'approximate boundary' (Figures 20 & 21), and it is speculated by the writer that the graveyard, or evidence of it, may be located on level, ground among the dense stand of Blue Gum trees alongside Hemel en Aarde Road.

It is also worth mentioning, that a relatively large portion of the stand of Blue Gum trees on the upper slopes of Farm 586 had been cleared when the fieldwork for this project was conducted (in October 2022), and no evidence of a graveyard, or any other physical feature/s, were recorded at the time. In addition, the upper slopes in this area are quite steep and rocky and not conducive to the establishment of a graveyard.

Further investigation would therefore need to be conducted to establish the presence of the graveyard, which lies outside the footprint area of the proposed vineyard development.



Figure 20. Blue polygon indicates the approximate location of the Leper Colony Graveyard on Farm 586 (after Baumann 2009). The yellow pin was plotted using GPS co-ordinates extracted from Baumann (2009).

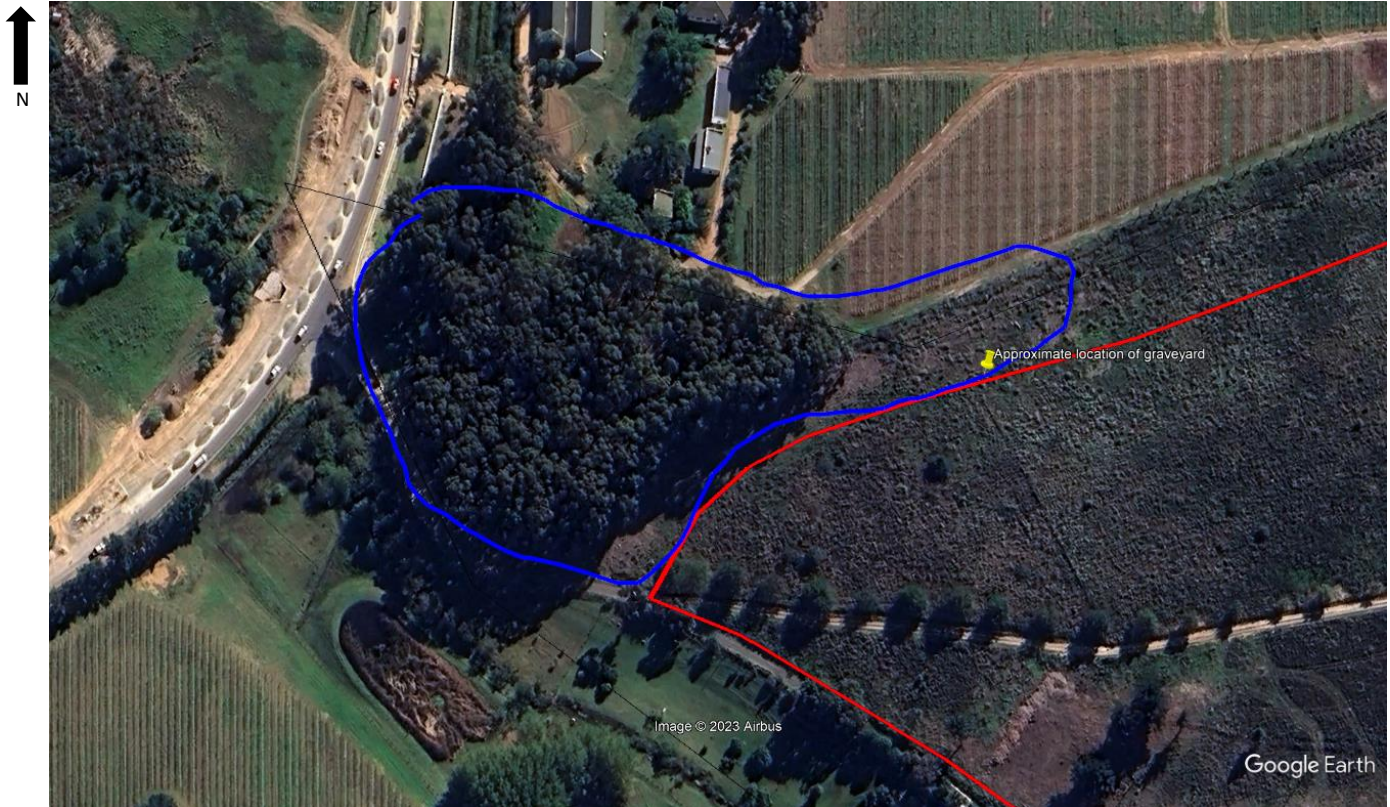


Figure 21. Blue polygon indicates the approximate location of the Leper Colony graveyard on Farm 585/6 (after Beauman 2009). GPS co-ordinate extracted from Baumann (2009)

9.4 Built environment

No buildings, structures or features will be impacted by the proposed development.

9.5 Cultural landscape

Agriculture (mostly vineyards) dominates the Cultural Landscape. The development will therefore complement the surrounding land use.

9.6 Visual impact

The establishment of vineyards on Rem Farm 585 will result in a Low visual impact.

9.7 Socio economic impact

Significant employment opportunities will be created by the proposed development.

10. IMPACT STATEMENT

Indications are that the proposed establishment of vineyards on Re Farm 585 (Mountain Rose Farm), in the Hemel en Aarde Valley will not have an impact of great significance on Stone Age archaeological heritage resources.

It has also been shown that the proposed development will not impact on the Leper Colony graveyard, which was established by the Colonial Government in 1823. The exact location of the 'site' is unknown, but it is speculated that the graveyard may be located on the lower slopes of Farm 586, hidden by the dense stand of Blue Gum trees alongside Hemel en Aarde Road/R320.

11. CONCLUSION

The impact significance of a proposed vineyard development on important archaeological and historical heritage is assessed as low and therefore there are no objections to the development proceeding.

12. RECOMMENDATIONS

With, regard to the proposed establishment of vineyards on Remainder Re Farm 585 Caledon, in the Hemel en Aarde Valley, near Hermanus, the following recommendations are made.

1. No mitigation is required prior to construction excavations occurring.
2. Should any human remains be disturbed, exposed, or uncovered during excavations and earthworks, these must immediately be reported to Heritage Western Cape (Ms. Stephanie Barnard 021 483 96 85).

13. REFERENCES

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