

# ARCHAEOLOGICAL IMPACT ASSESSMENT OF FOURTEEN BORROW PITS IN THE AURORA AND REDELINGHUYS AREAS, PIKETBERG AND CLANWILLIAM MAGISTERIAL DISTRICTS, WESTERN CAPE

(AIA conducted under Section 38 (1) of the National Heritage Resources Act  
as a freestanding AIA.)

Prepared for

**Jeffares & Green (Pty) Ltd**

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## EXECUTIVE SUMMARY

The Archaeology Contracts Office conducted Phase 1 Archaeological Impact Assessments on fourteen borrow pit locations in the vicinities of Aurora and Redelinghuys in the Piketberg and Clanwilliam Magisterial Districts. The study is being done in conjunction with those of other specialists to determine which parts of the surveyed areas are most suitable for quarrying and full EIA's will only be conducted on those locations that require such treatment. The excavated material will be used in the resurfacing of local roads. The material excavated from the proposed borrowpits will be used to regravell MR534 and surface MR531.

Thirteen of the fourteen are existing borrowpits. Only one, MR534/25.65/R/5200, is a new borrowpit and has not been previously mined. Large portions of the surrounding unquarried land have been ploughed in the past although some areas were still covered with indigenous vegetation. As such, visibility was variable but I am confident that this did not compromise our ability to accurately assess the heritage and archaeological potential of the surveyed polygons.

In total nine stone artefact scatters were found. These all had Later Stone Age material on them but one seemed to be mixed with Middle Stone Age artefacts. No non-lithic finds were encountered at any of the sites. None are particularly significant but mitigation is recommended for one area (containing four scatters) with a particularly good concentration of artefacts. These might have originated in a deflation hollow which has been ploughed flat for agricultural purposes. The remaining scatters are of too little value to be of concern since their lower densities would not provide meaningful assemblages.

One small historical stone quarry was located. It would only have yielded some 3 m<sup>3</sup> of sandstone and is not significant in any way. One structure probably greater than 60 years of age was recorded. It is a small vernacular cottage and lies on the very edge of one of the surveyed polygons. It has undergone several modifications and is not a very significant structure. Although it is unlikely to be damaged during quarrying, it should be noted that a permit would be required to damage or destroy this structure.

The only other feature of significance is the cultural landscape within the village of Aurora. The village contains several buildings of between approximately 60 and 130 years old and clearly has tourism and aesthetic value. One of the borrow pits is immediately adjacent to the village and great care should be taken to rehabilitate this borrow pit so as not to cause any long term visual impact to the townscape. This is the same borrow pit that affects the small cottage and taking the necessary precautions during and after quarrying should result in no negative impacts.

The very slight possibility of encountering prehistoric burials in the more sandy areas was noted and, if found, work should be stopped and the find reported to Heritage Western Cape immediately.

It should be noted that quarrying will not cover the entire surveyed polygons but only those parts deemed suitable so some of the sites might not be impacted. However, care should be taken to protect the unquarried areas from unnecessary damage.

# Contents

<b>1. INTRODUCTION</b> .....	<b>4</b>
<b>2. METHODS</b> .....	<b>6</b>
2.1. Limitations.....	6
<b>3. DESCRIPTION OF AFFECTED ENVIRONMENTS AND SITES</b> .....	<b>7</b>
3.1. Redelinghuys Borrow Pits .....	7
3.1.1. MR531/54.44/R/30 .....	7
3.1.2. MR531/55.1/R/50 .....	8
3.1.3. MR531/63.5/R/150 .....	10
3.1.4. MR531/63.9/L/200.....	12
3.1.5. DR2180/1/R/10.....	15
3.1.6. OP578/2.9/L/50 .....	17
3.1.7. MR531/74.6/R/10 .....	18
3.1.8. MR531/71.9/R/20 .....	20
3.2. Aurora Borrow Pits.....	22
3.2.1. MR534/25.65/R/5200 .....	22
3.2.2. DR2171/5/R/400.....	23
3.2.3. OP585/0/L/320 .....	25
3.2.4. OP585/1.6/L/100 .....	29
3.2.5. OP585/1.6/L/500 .....	31
3.2.6. OP585/3.7/L/900 .....	33
<b>4. DISCUSSION</b> .....	<b>36</b>
4.1. Palaeontology .....	36
4.2. ESA / MSA.....	36
4.3. LSA.....	36
4.4. Historical period .....	38
4.5. Cultural landscape .....	38
<b>5. RECOMMENDATIONS</b> .....	<b>39</b>
<b>6. REFERENCES</b> .....	<b>40</b>
<b>7. INVESTIGATION TEAM</b> .....	<b>40</b>

# 1. INTRODUCTION

The Archaeology Contracts Office was appointed by Jeffares & Green (Pty) Ltd to conduct Archaeological Impact Assessments on fourteen proposed borrow pit locations in the vicinities of Aurora and Redelinghuys (Figure 1). The majority of the borrow pits fall within the Piketberg Magisterial District but the north-westernmost ones lie within the bounds of the Clanwilliam Magisterial District.

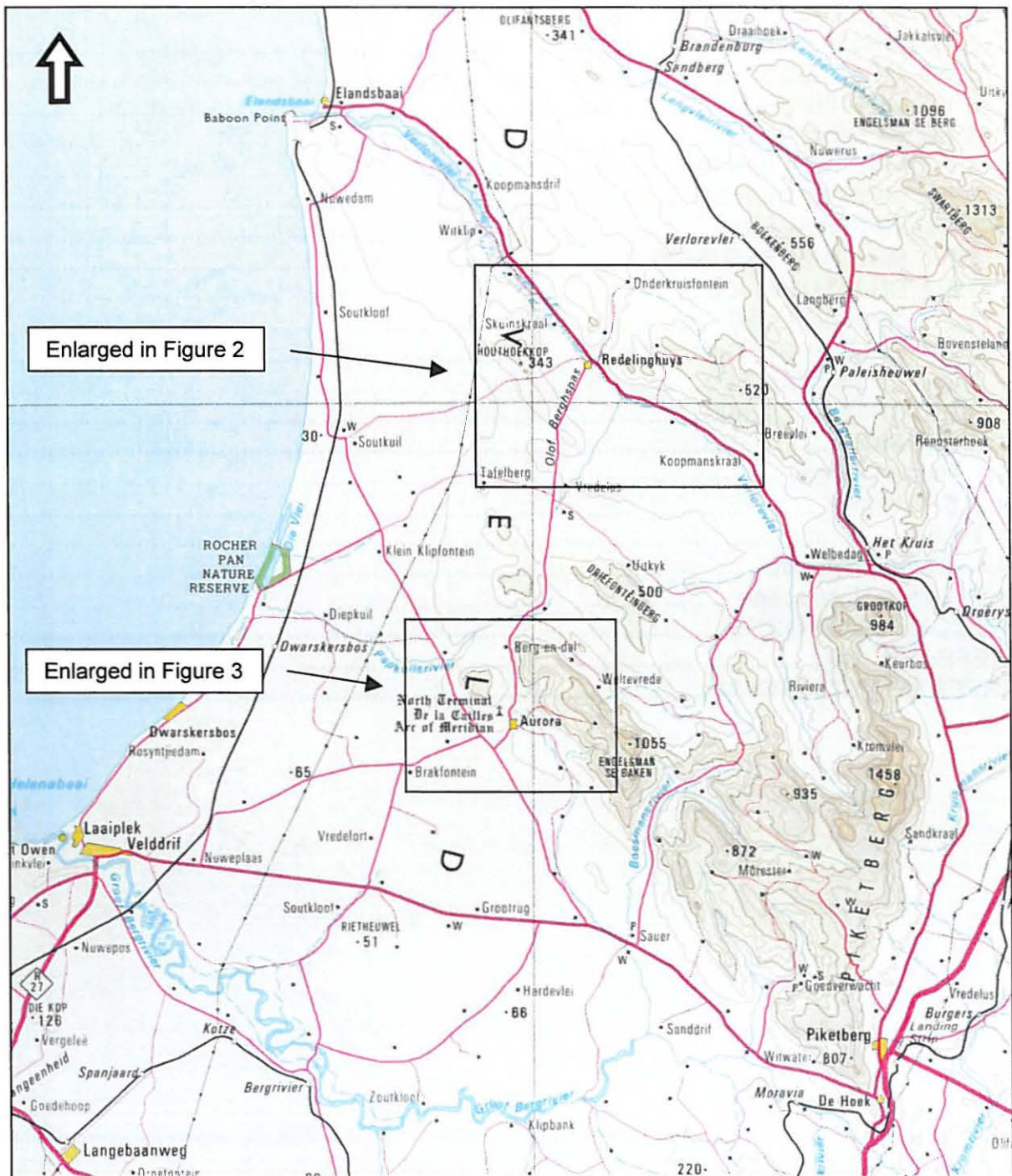
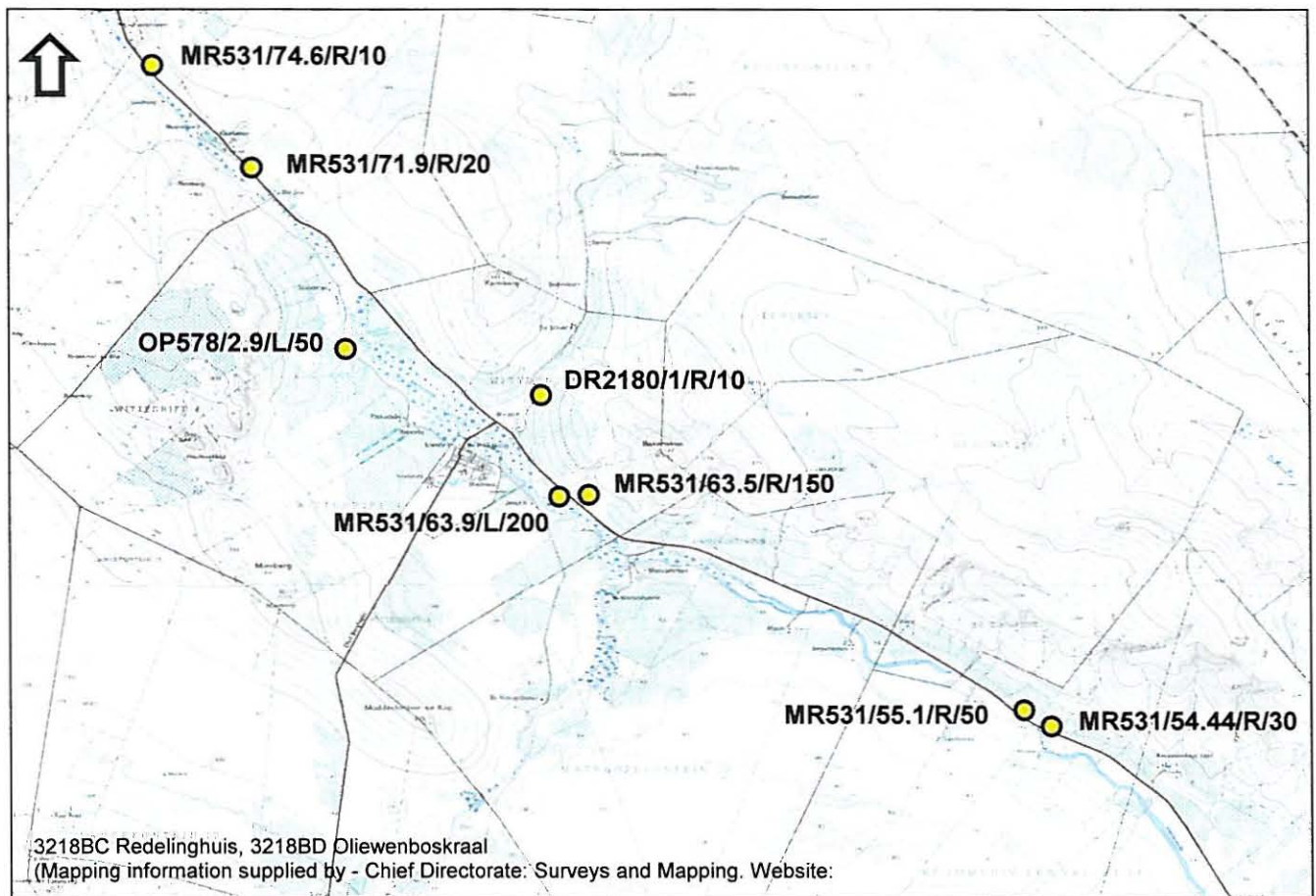


Figure 1: Map of part of the west coast region of the Western Cape Province showing the location of the two areas in which the fourteen borrow pits are to be sited.

At this stage it is unknown what area will be excavated at each of the borrow pits as studies are being conducted to determine the sensitive areas at each site. Polygons indicating the area within which the excavations would be sited were provided for the purposes of our Phase 1 survey and all finds discovered within those polygons are presented here. Furthermore it has not yet been established which borrow pits will require an EIA so this archaeological assessment has been carried out as an independent AIA with all the locations being assessed regardless of the final size of the excavated areas.

The Redelinghuis borrow pit locations are spread along the Verlorenvlei although one lies on the edge of a tributary stream (Figure 2). Those near Aurora are mostly in the area just east of the town but two lie further afield (Figure 3). The material extracted from the borrow pits will be used to regravell MR534 and surface MR531.



**Figure 2:** Map of the Redelinghuis area showing the locations of the six borrow pits proposed there.

Thirteen of the fourteen are existing borrowpits. Only one, MR534/25.65/R/5200, is a new borrowpit and has not been previously mined. These two are MR534/25.65/R/5200 and MR531/71.9/R/20. The amount of previous disturbance at the twelve existing pits varies considerably with some already covering quite extensive areas. The remaining areas around the existing pits were frequently cultivated but some areas retained the indigenous fynbos cover.

The surveyed polygons varied in size between about 2 and 7 Ha.

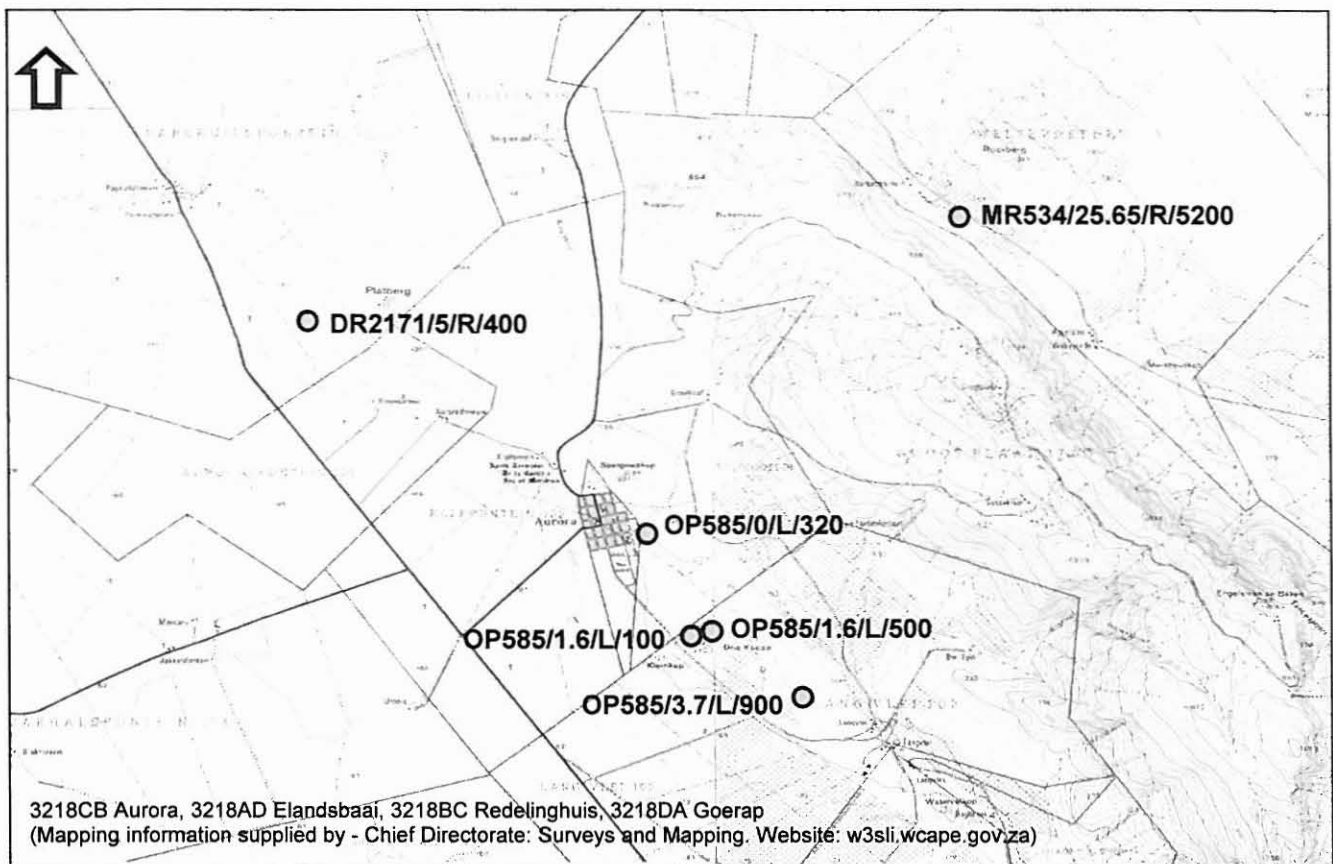


Figure 3: Map of the Aurora area showing the locations of the six borrow pits proposed there.

## 2. METHODS

Each of the areas indicated were searched on foot. Two people conducted the survey on 9<sup>th</sup> and 10<sup>th</sup> January 2007. Given the large areas already disturbed by earlier excavations and ploughing, the two days proved sufficient for the examination of the affected areas. All finds were recorded photographically and GPS co-ordinates on the WGS84 datum were obtained by means of a hand-held GPS receiver. While the surface sand was searched for archaeology, we also examined broken pieces of shale in several of the borrow pits to check for any traces of fossils.

### 2.1. Limitations

Much of the area has been cultivated at various times in the past with the result that vegetation cover was generally quite sparse. This resulted in the surface being very sandy and affording very high visibility. The majority of places where thick vegetation was encountered were steep, rocky slopes that are not suited to cultivation. Similarly, such areas would not have been suited to prehistoric human habitation and I am confident that these areas which were less easy to search comprehensively will not contain archaeological material of any significance. The only finds that might occur would be isolated stone artefacts. Further specific details on ground visibility are provided in the individual borrow pit descriptions that follow.

### 3. DESCRIPTION OF AFFECTED ENVIRONMENTS AND SITES

#### 3.1. Redelinghuys Borrow Pits

##### 3.1.1. MR531/54.44/R/30

- Approximate area: 4 Ha
- Location: 32° 31' 30" S 18° 38' 16" E
- Farm name and number: Krommeriviers Valley 14
- Environment: Approximately half of this area has been ploughed (Figure 4, Plate 1). The remaining half has a large borrow pit in its centre (Figure 4, Plate 2) but the remaining surface is still original. It is, however, extensively disturbed by sheep paths and overgrazing.
- Archaeology: Only occasional quartz artefacts were noted on the surface.



**Figure 4:** Aerial photograph of the surveyed polygon at MR531/54.44/R/30.



**Plate 1:** The northern, previously ploughed part of the surveyed area at MR531/54.44/R/30

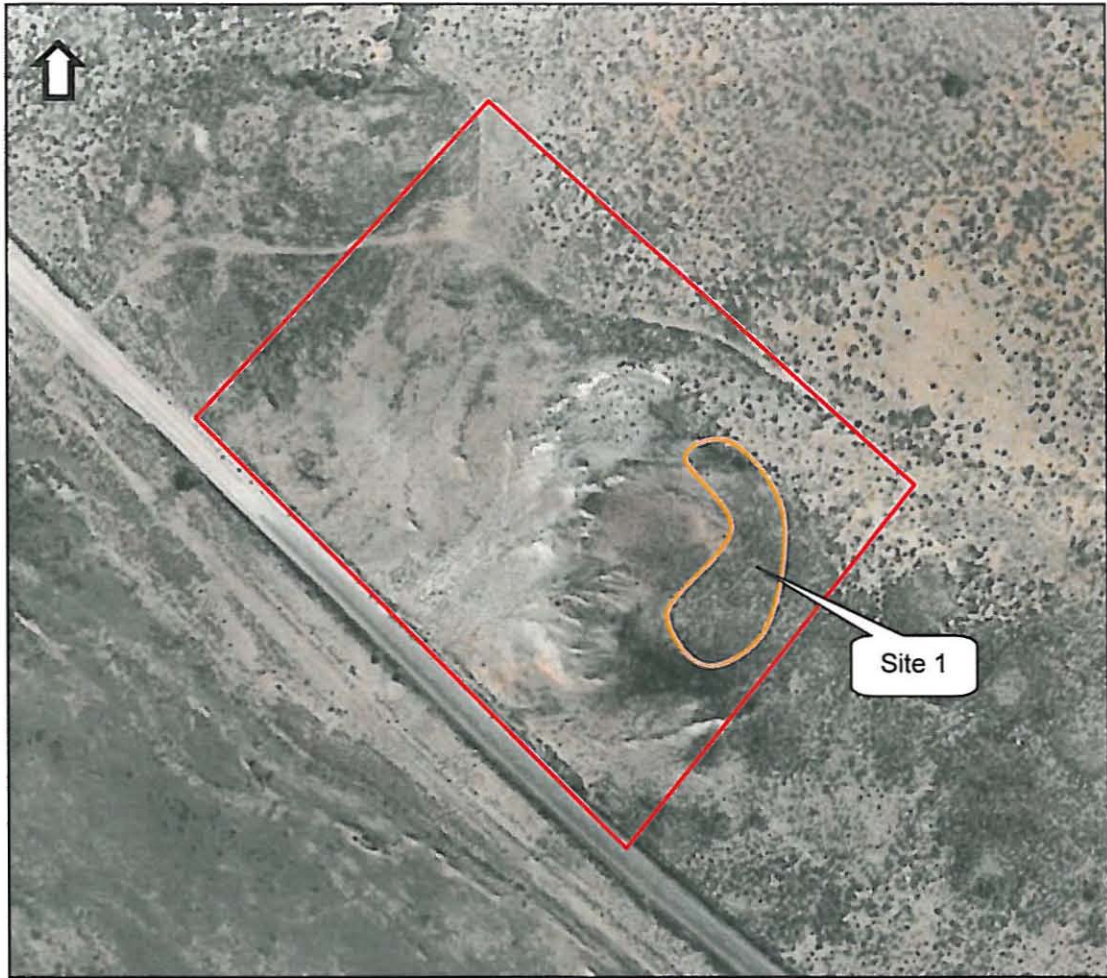


**Plate 2:** The existing borrow pit at MR531/54.44/R/30.

### 3.1.2. MR531/55.1/R/50

- **Approximate area:** 6 Ha
- **Location:** 32° 31' 18" S 18° 37' 57" E
- **Farm name and number:** Krommeriviers Valley 14
- **Environment:** Almost the entire area inside this polygon was already disturbed by the existing borrow pit (Figure 5, Plate 3). A small area around the north-eastern and eastern parts remains unquarried and is covered by sparse indigenous vegetation. The edge of the borrow pit shows that a ferricrete crust is present just below the surface.
- **Archaeology:** Occasional quartz artefacts were noted in the flat area above the borrow pit and a moderate density artefact scatter (Site 1) was found stretching around the lip of the existing borrow pit.
  - **Site 1:** This site lies between 32° 31' 19.9" S 18° 38' 00.2" E and 32° 31' 16.4" S 18° 37' 59.3" E. The artefacts are most dense at the first co-ordinate but a reasonable scatter is also present at the second. The scatter is of quite low density between the points and extremely low elsewhere. It is clear that the borrow pit was excavated into a small hill and that the people who occupied the area took advantage of the good visibility over the valley afforded by the high ground (Plate 3). The majority of artefacts were Later Stone Age (LSA) and made of quartz (Plates 4 & 5). Some silcrete LSA artefacts were also found. A few flakes and chunks of silcrete were almost certainly Middle Stone Age (MSA). Among the LSA artefacts was a probable adze made from quartz (Plate 6).

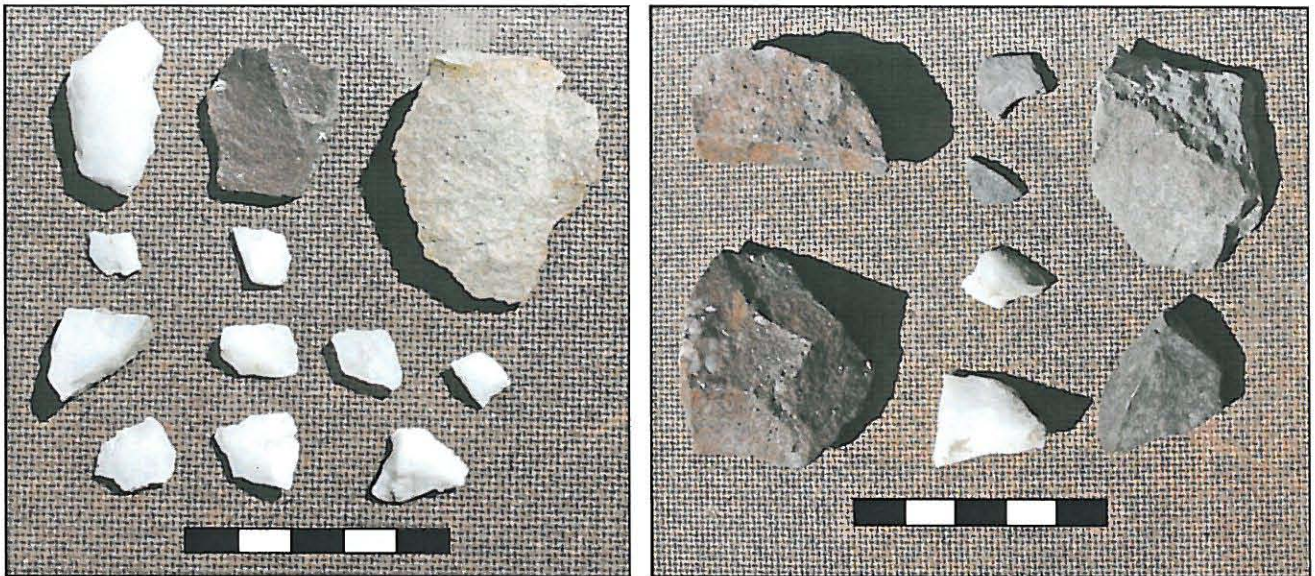




**Figure 5:** Aerial photograph of the surveyed polygon at MR531/55.1/R/50.



**Plate 3:** View towards the southeast showing the existing borrow pit and the hill on which Site 1 is located.



**Plates 4 and 5:** Stone artefacts from Site 1. The probable adze is at top left in Plate 4. Scale in cm.



**Plate 6:** The probable adze from Site 1.

### 3.1.3. MR531/63.5/R/150

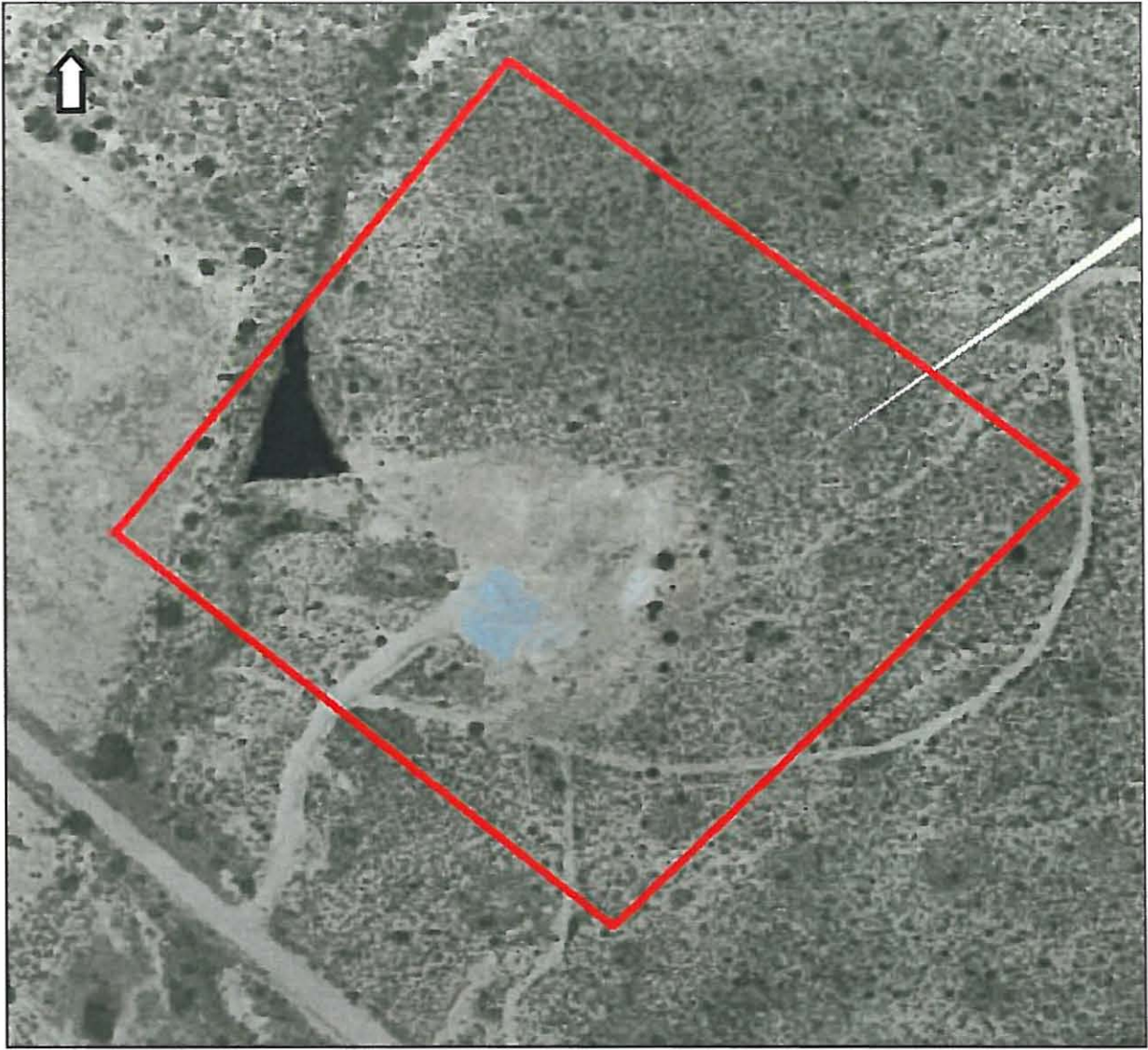
Approximate area: 6 Ha

Location: 32° 29' 06" S 18° 33' 27.6" E

Farm name and number: Wittedrift 4

Environment: Much of this area is relatively steep hillside with a small river valley running along the western edge of the surveyed area. An existing borrow pit is located in the centre and a small farm dam in the valley to the west (Figure 6). Only a very tiny portion in the far western corner is ploughed with the remainder retaining original fynbos cover. The fynbos-covered north-eastern half is very steep and has ferricrete nodules present at the surface.

Archaeology: A single heavily weathered flake was seen near the southwest edge of the polygon. It is probably Early Stone Age and may well have been associated with the ferricrete. Very low density quartz LSA artefacts were seen in the flatter, ploughed area in the southwest corner. There is no obvious source of these as the field is ploughed flat. No artefacts were found on the steep northern slopes.



**Figure 6:** Aerial photograph of the surveyed polygon at MR531/63.5/R/150.



**Plate 7:** View towards the east over the existing borrow pit and the steep hillside to its north.

### 3.1.4. MR531/63.9/L/200

- Approximate area: 7 Ha
- Location: 32° 29' 03" S 18° 33' 08" E
- Farm name and number: Wittedrift 4
- Environment: This area lies between the road and the Verlorenvlei River. The lower portion of it comprises of the steep edge of the floodplain of the river and has already been disturbed by earlier excavations. The upper, north-eastern portion, however, is flat, sandy and ploughed in its entirety.
- Archaeology: No artefacts were observed on the steep slopes along the south-western edge of the polygon but many were present on the sandy, north-eastern area (Figures 7 & 8, Plate 8). These were focussed mostly in the south-eastern part where we were able to identify four particularly dense patches. It seems likely that these originated from deflation hollows that have been ploughed flat. Scattered artefacts were present over the rest of the ploughed area but these were very sparse.

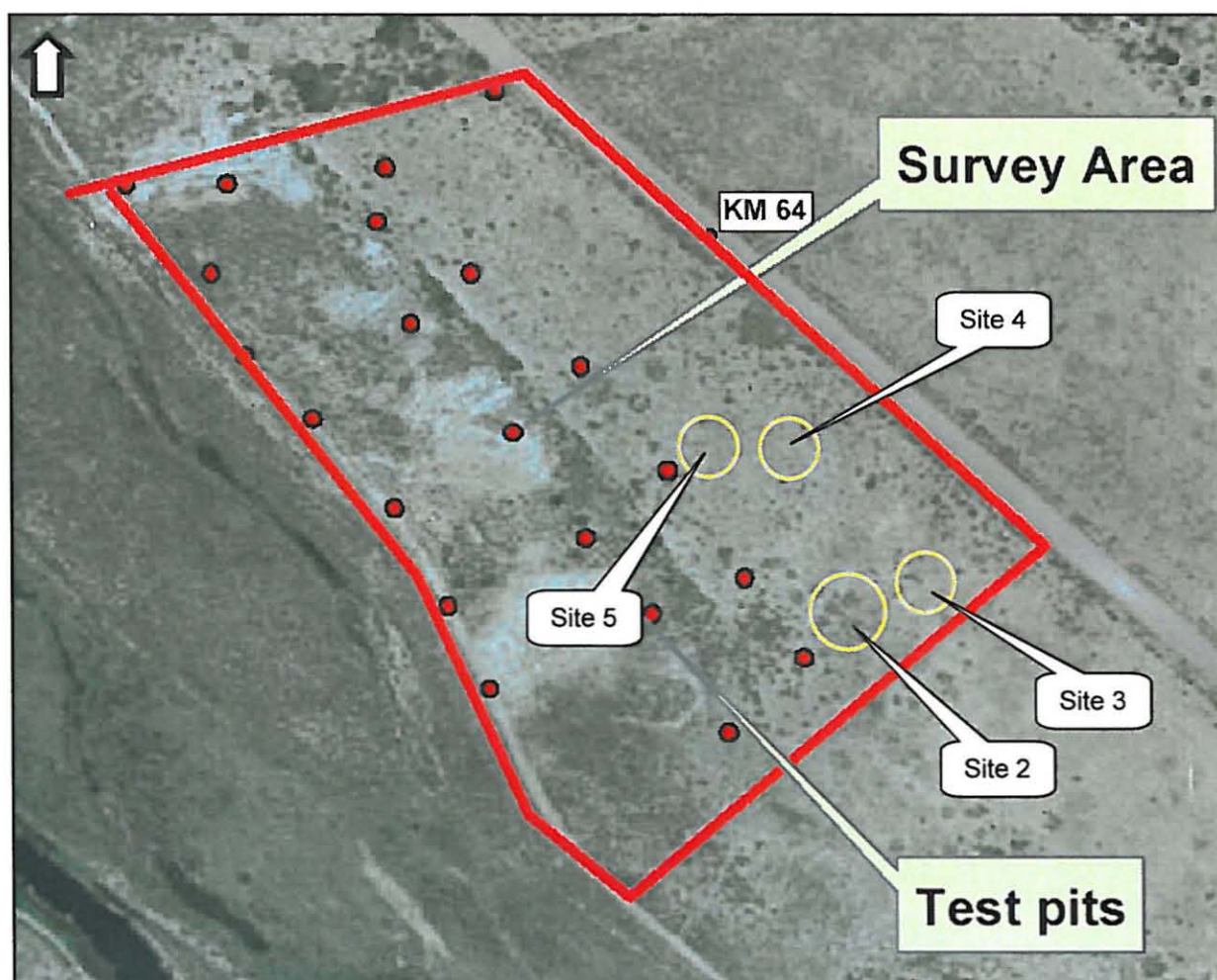
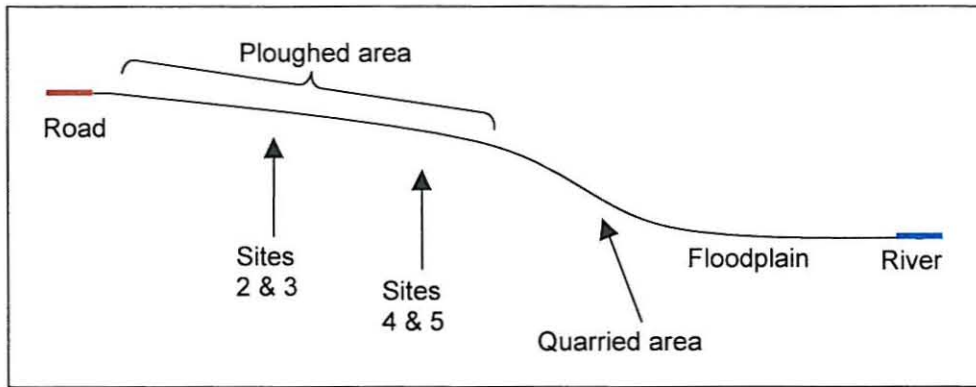


Figure 7: Aerial photograph of the surveyed polygon at MR531/63.9/L/200.

- Site 2: This scatter is located at 32° 29' 06.3" S 18° 33' 13.8" E and is just above the slope. It is a fairly extensive scatter of flaked artefacts with vein and crystal quartz, quartzite, sandstone and silcrete all present (Plate 9). No formal tools were seen but the site is clearly LSA. The densest scatter lies within a diameter of at least 30 m.



**Figure 8:** Schematic cross-section through the slope in the region of Sites 2 to 5 and looking towards the southeast.



**Plate 8:** View towards the southeast showing the flat, sandy ploughed area to the left and the river and floodplain on the far right. The sites are located on the flat, sandy area.



**Plate 9:** Photograph of stone artefacts from Site 2. Scale in cm.

- Site 3: This scatter lies some 50 m closer to the road at 32° 29' 05.4" S 18° 33' 15.0" E. It may well be related to Site 2. Vein quartz was common and there was more silcrete here than at Site 2. One piece of hornfels was also seen (Plate 10). A single formal tool, a backed bladelet made on silcrete, was noted (Plate 11). This tool is typical of late-mid-Holocene LSA sites on the west coast. The densest scatter lies within a diameter of at least 30 m.



**Plate 10:** Photograph of stone artefacts from Site 3. The silcrete backed bladelet is second from left in the middle row. Scale in cm.



**Plate 11:** The silcrete backed bladelet. The backed edge is in picture with the unifacial retouch having been applied to the upper edge as we look at it.

- Site 4: This is another patch of fairly dense artefact scatter but certainly far less dense than the previous two scatters. It lies at 32° 29' 01.5" S 18° 33' 11.7" E. Only quartz flaked artefacts were seen. One small quartz hammerstone was present.

- Site 5: This is another patch of slightly higher density artefacts and is similar in character to Site 4. It is located at  $32^{\circ} 29' 01.4''$  S  $18^{\circ} 33' 09.1''$  E and may well be related to Site 4.

### 3.1.5. DR2180/1/R/10

- Approximate area: 2 Ha
- Location:  $32^{\circ} 28' 00''$  S  $18^{\circ} 38' 01''$  E
- Farm name and number: Wittedrift 4.
- Environment: This borrow pit is located in the valley of a small tributary to the Verlorenvlei River. A small area in the middle has already been quarried out (Figure 9). The remaining area is steep, rocky and bushy (Plate 12). Although visibility was not very good in this area, it is very unsuited to human habitation and I am confident that no LSA sites were missed.
- Archaeology: No stone artefacts were seen in the surveyed area. Only one small historical site was found.



Figure 9: Aerial photograph of the surveyed polygon at DR2180/1/R/10.



**Plate 12:** View towards the north showing the steep slope of the area. The tributary stream lies on the far left of the photograph. The photograph is taken from the southern end of the surveyed area.

- **Site 6:** The site is a tiny sandstone quarry located at  $32^{\circ} 27' 57.6''$  S  $18^{\circ} 33' 00.1''$  E. (Plate 13). It is likely that during the early years of construction in the area people wandered around the hills looking for suitable sandstone outcrops, probably those displaying sedimentary stratification. No more than about  $3 \text{ m}^3$  of rock would have been removed from the site. A small scatter of stone dressing debris lies just below the excavated area (Plate 14).



**Plate 13:** (left) The small sandstone quarry. The face at the back of the excavation is only about 0.5 m high.



**Plate 14:** (right) The remains of stone dressing lying on the slope just below the quarried area.



3.1.6. OP578/2.9/L/50

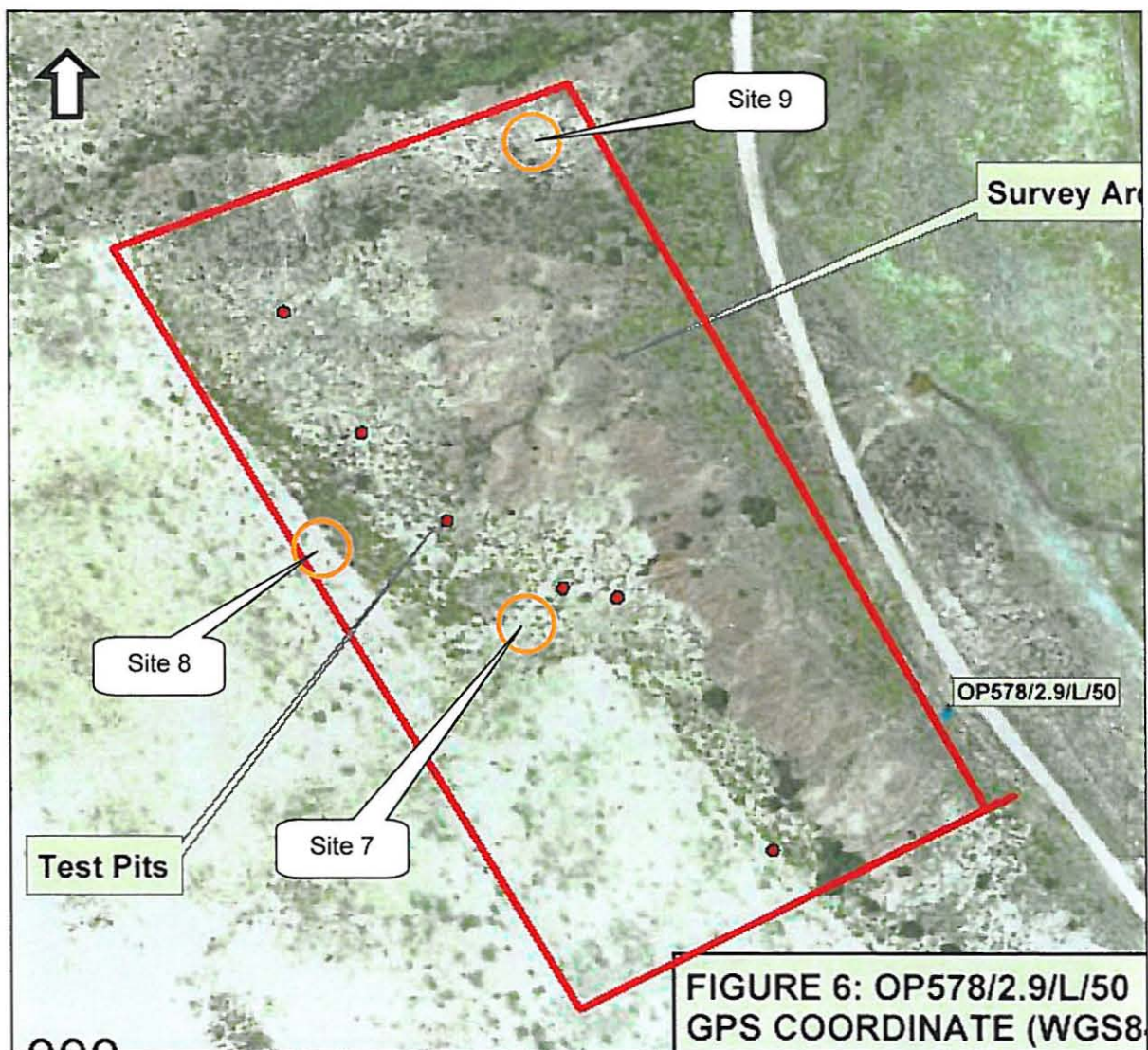
Approximate area: 7 Ha

Location: 32° 27' 32" S 18° 30' 58" E

Farm name and number: Wittedrift 4.

Environment: This borrow pit is located on the south-western side of the Verlorenvlei River and a large area has already been excavated from it (Figure 10, Plate 15). The lower, north-eastern part is extremely steep, primarily as a result of the earlier quarrying. The upper, south-western area is far flatter with a large part having been ploughed in the past (Plate 16). The rest still has a fynbos covering and is quite rocky (Plate 15). A small river valley is located just outside and north of the polygon.

Archaeology: Occasional artefacts were seen in the rocky areas in the north-western part of the surveyed area and these may be either MSA or ESA. Occasional quartz LSA artefacts were noted in the flatter, sandy, ploughed area to the south. Three sites were found with all being stone artefact scatters.



**Figure 10:** Aerial photograph of the surveyed polygon at OP578/2.9/L/50. The small river valley is visible at the top of the picture.



**Plate 15:** View over the surveyed area looking towards the south. The large existing borrow pit is evident on the left while the rocky, fynbos-covered slopes of the northern area are visible to the right.

- **Site 7:** This is a relatively low density scatter of quartz artefacts on the ploughed surface at  $32^{\circ} 27' 34.1''$  S  $18^{\circ} 30' 51.7''$  E. Only quartz artefacts were seen.
- **Site 8:** This is a relatively low density scatter of quartz artefacts on the ploughed surface at  $32^{\circ} 27' 31.0''$  S  $18^{\circ} 30' 49.8''$  E. Only quartz artefacts were seen.
- **Site 9:** This site is a small moderate density scatter of artefacts atop a small but prominent hill/ridge between the small river valley and the rest of the surveyed area. It lies at  $32^{\circ} 27' 59.6''$  S  $18^{\circ} 33' 00.0''$  E. The scatter lies within a diameter of some 20 m on the top of the hill. The hill is just faintly visible in the centre middleground of Plate 15.



**Plate 16:** View towards the north over the ploughed, upper region of the surveyed polygon.

3.1.7. MR531/74.6/R/10

Approximate area: 3 Ha

Location: 32° 31' 30.0" S 18° 38' 16.3" E

Farm name and number: Bonteheuvel 1

Environment: This borrow pit is located immediately alongside the Verlorenvlei River but on the north-eastern side of the road (Figure 11). It has an existing excavation alongside the road (Plate 17). The whole area is quite steep with the undisturbed surface being very sandy. Vegetation cover is sparse (Plate 18). Human habitation would be highly unlikely here.

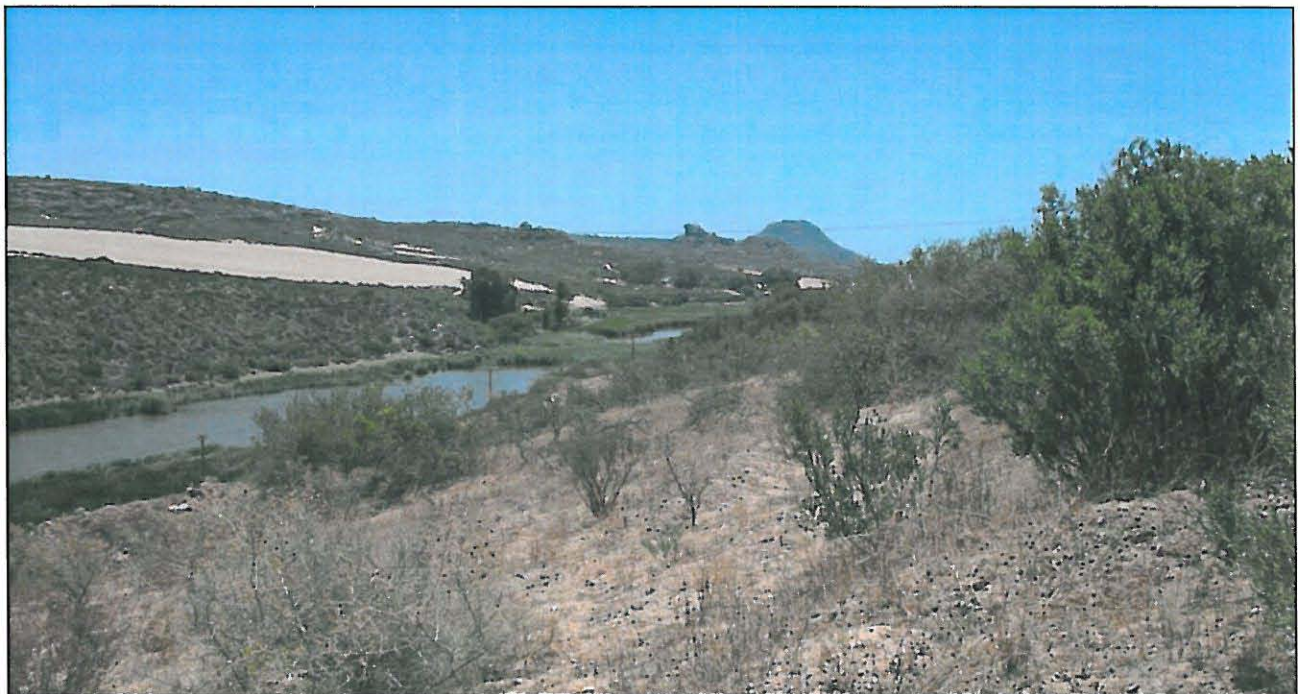
Archaeology: No sign of any archaeology was seen.



**Figure 11:** Aerial photograph of the surveyed polygon at MR531/74.6/R/10.



**Plate 17:** The existing borrow pit at MR531/74.6/R/10.



**Plate 18:** View towards the west of the upper slopes of the surveyed area.

### 3.1.8. MR531/71.9/R/20

Approximate area: 4 Ha

Location: 32° 25' 39" S 18° 30' 00" E

Farm name and number: Bonteheuvel 1

Environment: This borrow pit is located similarly to the previous one but is a little further upstream. A small strip of unploughed land lies along the road margin but all the rest of the area has been ploughed (Figure 12, Plate 19). Unlike most of the others, no quarrying has yet taken place here.

Archaeology: Only two flaked artefacts of quartz were seen.

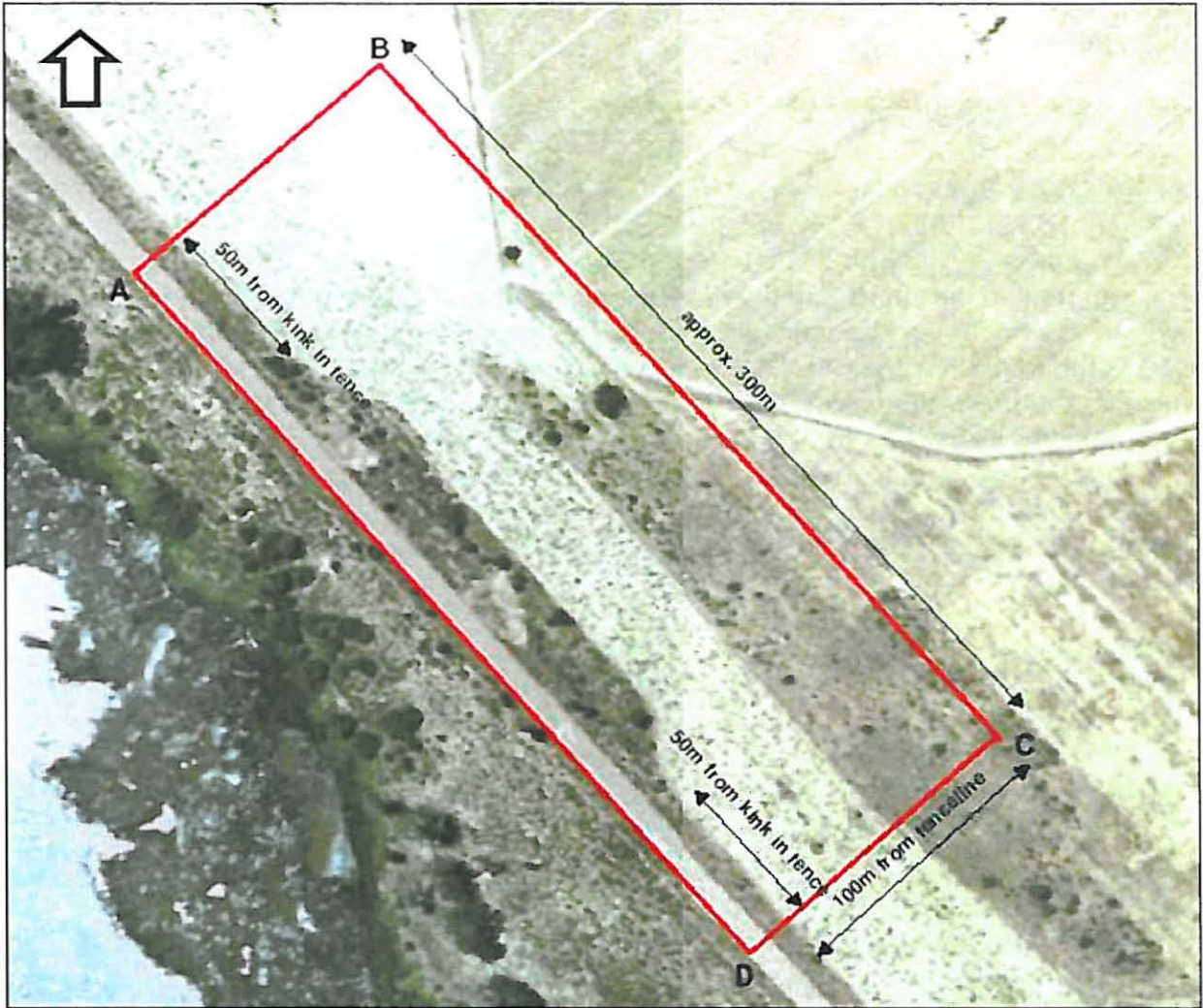


Figure 12: Aerial photograph of the surveyed polygon at MR531/71.9/R/20.

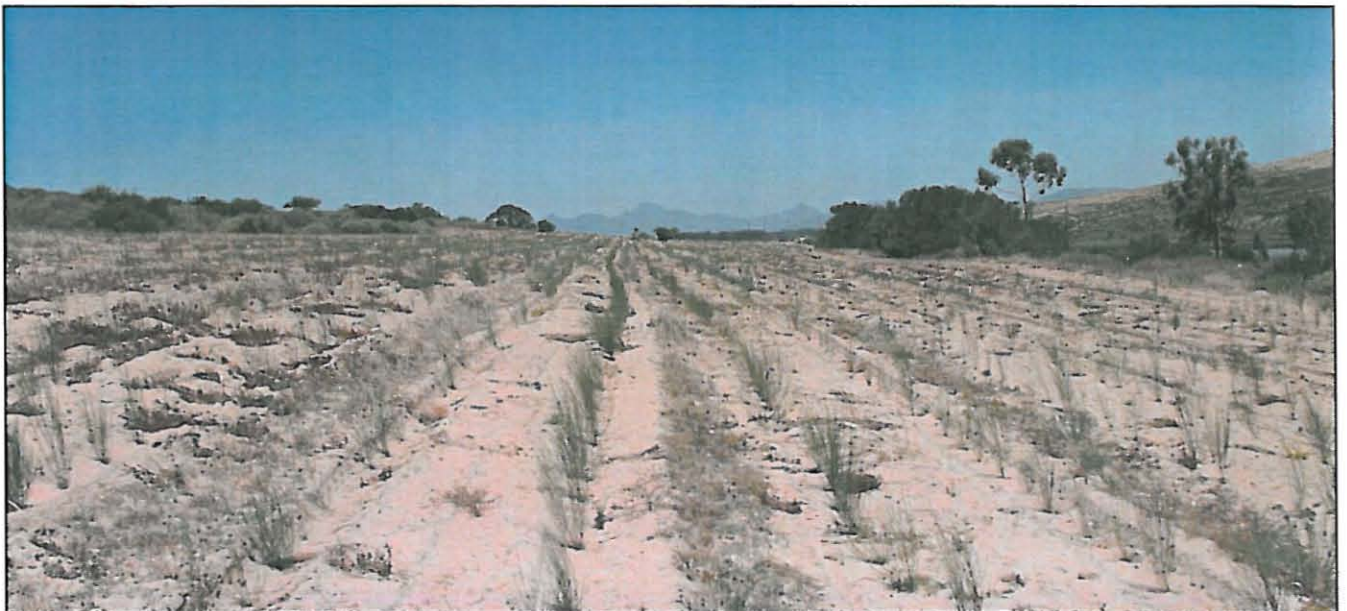


Plate 19: View towards the southeast of the ploughed surface of the surveyed area.

## 3.2. Aurora Borrow Pits

### 3.2.1. MR534/25.65/R/5200

Approximate area: 4 Ha

Location: 32° 31' 30.0" S 18° 38' 16.3" E

Farm name and Number: Weltevreedden 38

Environment: The entire surveyed area has been cultivated in the past, but seemingly with fynbos. No quarrying has yet taken place. The area is a fairly sandy, gentle slope at the base of the mountain. Ground visibility was very good (Plate 20 & 21). Note that a mountain fire has cleared the vegetation visible in the aerial photograph (Figure 13).

Archaeology: No prehistoric archaeology was seen at all. The only item of concern here is the line of pine trees along the road (Figure 13, Plate 20). These trees comprise an element of the cultural landscape although they may well only be some 40 to 50 years old. Unfortunately all the trees alongside the borrow pit location have been burned.



**Figure 13:** Aerial photograph of the surveyed polygon at MR534/25.65/R/5200.



**Plate 20:** View towards the west showing the now burnt line of pine trees alongside the road.



**Plate 21:** View towards the south showing an area of unburnt vegetation in the southern part of the surveyed area.

### 3.2.2. DR2171/5/R/400

Approximate area: 5.5 Ha

Location: 32° 40' 30.0" S 18° 26' 16.3" E

Farm name and Number: Papekuilsfontein 35

Environment: This borrow pit lies at the foot of a mountain and has some rock outcrops just upslope (east) of the northern corner of the polygon (Figure 14). A large existing borrow pit is located in the western part of the surveyed area. Much of the undisturbed area has moderate

vegetation cover affording fair ground visibility. Heavy trampling and erosion caused by sheep occurs over the entire area.

Archaeology: A single silcrete flake fragment with a notch in it was seen in the northern corner of the polygon. This flake is quite likely to be MSA. Only occasionally did we see small quartz artefacts, probably all pertaining to the LSA.



**Figure 14:** Aerial photograph of the surveyed polygon at DR2171/5/R/400.



**Plate 22:** View of the existing borrow pit and surrounding areas. The rocky outcrop can be seen to the left. The surveyed area extends a short way behind the pit and also out to the right of it.



### 3.2.3. OP585/0/L/320

Approximate area: 2.5 Ha

Location: 32° 42' 27" S 18° 29' 22" E

Farm name and Number: Part lies within Klipfontein 103/1, the rest is within the town area.

Environment: This area adjoins the town of Aurora and is a gently angled, sandy slope leading uphill away from the town edge. An old shallow borrow pit is evident along the western edge of the area closest to the town but this is heavily overgrown (Plate 23). Some jeep tracks and a cleared area lead up to a small house on the northern boundary of the polygon (Figure 15). Thick indigenous fynbos covers the undisturbed areas affording poor visibility (Plate 24). Given the good visibility in the two jeep tracks (Plate 25), however, the thick vegetation is unlikely to have obscured any significant archaeology.

Archaeology: Only one isolated quartz flaked artefact was seen in a disturbed part of the surveyed area. A small cottage (Site 10), probably dating to the 1930's or 1940's is present on the northern boundary of the polygon (Plate 26). Given the proximity to the town and the age of some of the houses in it, the area also needs to be considered as part of a cultural landscape (Site 11).



Figure 15: Aerial photograph of the surveyed polygon at OP585/0/L/320.



**Plate 23:** The overgrown borrow pit on the western edge of the surveyed area. The town lies out of picture just to the left.



**Plate 24:** Thick indigenous vegetation on the upper, eastern slopes of the surveyed area.



**Plate 25:** One of the two jeep tracks crossing the surveyed area.



**Plate 26:** The small cottage on the northern edge of the polygon.

- **Site 10:** This site consists of a small vernacular style cottage probably dating to the 1930's or 1940's located at  $32^{\circ} 42' 24.4''$  S  $18^{\circ} 29' 22.8''$  E. It is built of decorative breeze blocks on a stone foundation. The chimney has had more recent modifications and the roof has been replaced very recently (Plate 26). The upper edges of the gables have been repaired with modern bricks and cement, probably when the roof was replaced. The building is not in use and the openings, with the exception of a single locked door, are securely boarded up. The surrounding area has fragments of modern glass, ceramics and other rubbish lying on the ground surface.
- **Site 11:** This is the rural village landscape of Aurora. Aurora is a small settlement covering approximately 1.0 km by 0.6 km. The built-up area is quite low density with fields and grassed areas in between the houses (Figure 16). The town is surrounded by farmlands on the southern and western sides and by indigenous fynbos to the north and east. Some 0.60 km east of the town the fynbos gives way to farmlands once more. The town contains several houses dating back to the early 20<sup>th</sup> century although some may be late 19<sup>th</sup> century in age.

○



**Figure 16:** Aerial view of Aurora showing the position of the surveyed polygon relative to the built-up area of the town.

### 3.2.4. OP585/1.6/L/100

- Approximate area: 5.5 Ha
- Location: 32° 43' 14" S 18° 29' 43" E
- Farm name and Number: Langvlei 102
- Environment: This area lies on the western slopes of a set of three rocky 'koppies' forming a short ridge (Figure 17) but does not include any rock outcrops. The surface is sandy with generally sparse indigenous grass and bush cover offering good ground visibility (Plate 27). A large existing borrow pit lies in the north-western part of the surveyed area (Figure 17, Plate 28).
- Archaeology: Occasional quartz flaked artefacts were observed throughout the surveyed area and this is no doubt due to its proximity to the nearby rocky outcrops which may well have provided some shelter to LSA people. No concentrations of artefacts were found. The borrow pit offered good opportunity to examine the shale and no fossil material was seen.



**Figure 17:** Aerial photograph of the surveyed polygon at OP585/1.6/L/100.



**Plate 27:** View towards the northwest showing the typical vegetation cover. The village of Aurora is visible in the background just more than 1 km distant.



**Plate 28:** View towards the southeast across the existing borrow pit.

### 3.2.5. OP585/1.6/L/500

- Approximate area: 2.5 Ha
- Location: 32° 43' 11" S 18° 29' 59" E
- Farm name and Number: Langvlei 102
- Environment: This site lies in a very similar location to the previous one but is some 0.3 km to the northeast. It also has an old borrow pit occupying much of the northern half of the surveyed polygon (Figure 18, Plate 29). Several large Rooikrans (*Acacia cyclops*) trees are growing around the borrow pit and a number of sandstone outcrops occur within the polygon. This area is slightly closer to the rocky ridge which lies just to the southwest. The undisturbed ground is generally sandy but stony patches do occur and the indigenous vegetation cover is of moderate density but still offers quite good visibility (Plate 30).
- Archaeology: As with the previous borrow pit, the close proximity to the rocky ridge has resulted in many random quartz flaked artefacts having been deposited in the area. One area of particularly high density was isolated as Site 12.



**Figure 18:** Aerial photograph of the surveyed polygon at OP585/1.6/L/500.

- Site 12: This site consists of an approximately 20 m diameter scatter of quartz flaked artefacts located at 32° 43' 12.7" S 18° 29' 57.5" E. The scatter lies some 100 m from the base of the rocky ridge. No formal tools or other finds were seen but the stone artefacts were quite numerous.



**Plate 29:** View towards the southeast showing the existing borrow pit as well as the eastern end of the rocky ridge in the background.



**Plate 30:** View towards the south showing the undisturbed part of the polygon as well as the rocky ridge in the background.





**Plate 31:** Photograph of artefacts from Site 12. Scale in cm.

### 3.2.6. OP585/3.7/L/900

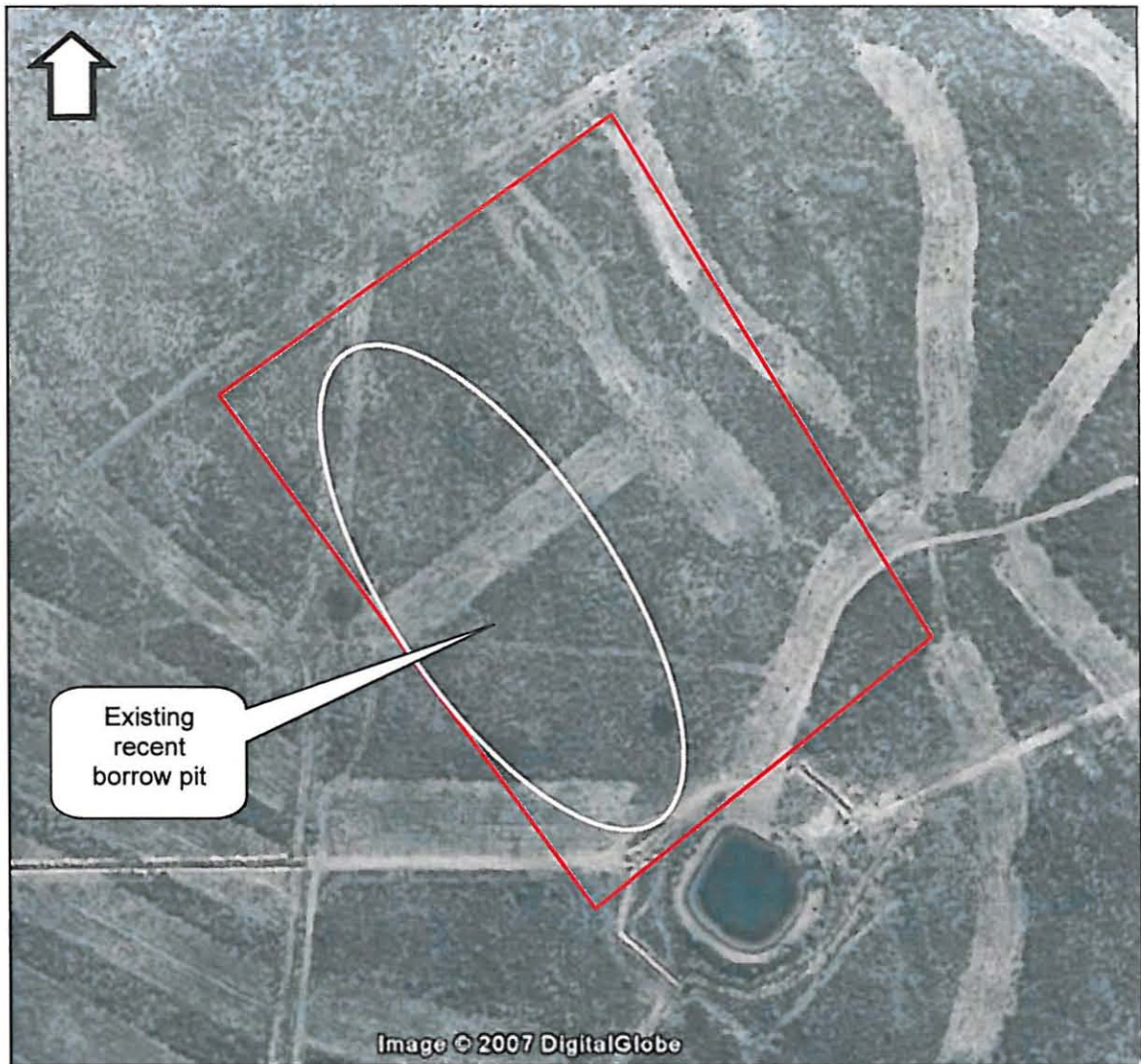
Approximate area: 5 Ha

Location: 32° 43' 45" S 18° 30' 38" E

Farm name and Number: Langvlei 102

Environment: This area is quite flat and sandy. Not evident in the aerial photograph (Figure 15) is a large very recently excavated borrow pit occupying about half the survey area (Plate 32). It lies along the south-western side of the polygon. Several strips of land have also been ploughed and cultivated in the past (Figure 19, Plate 33) and occasional very small rocky outcrops are present in the area. Although much of the area was disturbed, those areas still containing indigenous fynbos were quite thickly vegetated offering limited visibility. The ploughed areas, however, gave a good indication of what might be present in the vicinity.

Archaeology: No artefacts were seen. Given the location of the borrow pit in a flat, featureless area, prehistoric occupation is unlikely to have occurred in the immediate vicinity.



**Figure 19:** Aerial photograph of the surveyed polygon at OP585/3.7/L/900.



**Plate 32:** View towards the south from the middle of the polygon showing part of the recent borrow pit that has been excavated. The farm dam lies just outside the area.



**Plate 33:** View towards the south showing the thick indigenous vegetation alongside one of the ploughed strips.

## **4. DISCUSSION**

Overall, no significant archaeological or heritage concerns were located (Table 1). Several of those identified, however, do have limited value and can be very easily mitigated if necessary.

### **4.1. Palaeontology**

No fossil material was noted during the survey. Consultation with Dr. John Almond, a professional palaeontologist, has suggested that fossil material is unlikely to be found in the vicinity of the proposed borrow pits. However, he pointed out that one occurrence of fossil material has been noted near Elands Bay within the Klipheuwel Group of rocks. The Klipheuwel rocks are not well known and at present the overall fossil potential of these rocks is unclear. Although site visits prior to excavation of the borrow pits are not recommended, it is advisable to have a palaeontological inspection carried out of any pits that do intersect Klipheuwel rocks, either during or after excavation. The fresh rock samples could be of great scientific value in better understanding this rock group.

### **4.2. ESA / MSA**

Very limited material pertaining to the ESA or MSA was seen. The only site of interest was at MR531/55.1/R/50 where probable MSA artefacts were mixed with LSA artefacts on a hilltop. Mitigation could be considered for this site, but only on account of the LSA content which is discussed in Section 4.3 below.

### **4.3. LSA**

Several artefact scatters of LSA age were found. Four are of fairly low density and given that no other types of finds were associated with any of them, only very limited information could be obtained from them. Given the small samples available and the very low likelihood of finding other associated material, mitigation of these sites is unlikely to have any value.

Those at Borrow Pit MR531/63.9/L/200 (Sites 2, 3, 4 & 5) are in a very sandy area and, given the prevalence of archaeologically significant deflation hollows within the general area (Manhire 1987), it is likely that the artefacts seen there originated in a deflation hollow that was ploughed flat during cultivation. The possibility still exists that further non-lithic finds could be present in the area and, given the high density of artefacts noted, sampling of these sites would be of value. It will be possible to sieve the sand here to maximise the amount of material collected but detailed spatial information is unlikely to be present. A 1.5 mm sieve is likely to be feasible here. Collection within large grid squares of perhaps 3 m by 3 m could serve to isolate any gross spatial information that may still be preserved. A single grid should cover the whole area.

One other area, MR531/55.1/R/50 contains an artefact scatter (Site 1) worth sampling. It is located on a particularly rocky hill and sieving would be impossible. It is unlikely that non-lithic finds will be revealed by sampling but due to the presence of MSA material as well a surface artefact collection would provide useful comparative data.

**Table 1:** Summary of borrow pits and their heritage / archaeological significance.

Borrow pit name	Approximate survey area	Existing disturbance	Approximate % undisturbed	Archaeology / Heritage concerns	Overall heritage significance	Suggested mitigation actions
MR531/54.44/R/30	4 Ha	Part quarried, part ploughed	20 %	None	Very low	None
MR531/55.1/R/50	6 Ha	Part quarried	10 %	Site 1: artefact scatter	Low	Surface artefact collection
MR531/63.5/R/150	6 Ha	Part quarried, part ploughed, farm dam	70 %	None	Very low	None
MR531/63.9/L/200	7 Ha	Part quarried, part ploughed	20 %	Site 2: artefact scatter Site 3: artefact scatter Site 4: artefact scatter Site 5: artefact scatter	Low - Medium	Sampling (using sieve)
DR2180/1/R/10	2 Ha	Part quarried	80 %	Site 6: historical quarry	Very low	None
OP578/2.9/L/50	7 Ha	Part quarried, part ploughed	35 %	Site 7: artefact scatter Site 8: artefact scatter Site 9: artefact scatter	Low	None
MR531/74.6/R/10	3 Ha	Part quarried	90 %	None	Very low	None
MR531/71.9/R/20	4 Ha	Part quarried, rest ploughed	0 %	None	Very low	None
MR534/25.65/R/5200	5 Ha	Entirely cultivated but not ploughed	0 %	Tree line	Low	Minimise damage to tree line
DR2171/5/R/400	5.5 Ha	Part quarried, part ploughed, much erosion	60 %	None	Very low	None
OP585/0/L/320	2.5 Ha	Part quarried, part cleared	70 %	Site 10: 20 <sup>th</sup> C cottage Site 11: village landscape	Medium – High	Avoid cottage, rehabilitate
OP585/1.6/L/100	5.5 Ha	Part quarried	90 %	None	Very low	None
OP585/1.6/L/500	2.5 Ha	Part quarried	55 %	Site 12: artefact scatter	Low	None
OP585/3.7/L/900	5 Ha	Part quarried, part ploughed	25 %	None	Very low	None

#### 4.4. Historical period

Only two historical sites were located within the surveyed areas. One, a small sandstone quarry (Site 6; DR2180/1/R/10), is of very low significance and requires no further consideration. The other comprises a small cottage of early-mid 20<sup>th</sup> century age (Site 10; OP585/0/L/320). It has been much modified and is not highly significant but should be avoided during quarrying operations. Care should also be taken not to damage it in any way. Should any need arise to remove this cottage then a permit would need to be applied for from Heritage Western Cape.

#### 4.5. Cultural landscape

Only one cultural landscape of significance was noted during the survey. This is the rural village landscape of Aurora (recorded as Site 11). Although there are many late 20<sup>th</sup> century buildings in the village, several early 20<sup>th</sup> century and possibly late 19<sup>th</sup> century buildings are also present (Plates 34 & 35). Most of these have been very well maintained although some modification is occasionally evident. Overall, though, the village area has good scenic and aesthetic value. In mitigation of impacts to this landscape care should be taken to rehabilitate the borrow pit after completion of quarrying so as to maintain and even improve the scenic value of that part of the town.



**Plate 34:** This house in Aurora may originally date to the late 19<sup>th</sup> century.

One other cultural landscape feature was noted. This is the tree line at Borrow Pit MR534/25.65/R/5200. It is not very significant but it is suggested that it be avoided as far as possible during excavations. Unfortunately the tree line has already been damaged by the recent mountain fire that occurred in the vicinity.



**Plate 35:** This house in Aurora has a gable date indicating construction in 1928.

## 5. RECOMMENDATIONS

The following recommendations are all subject to approval by Heritage Western Cape.

It is recommended that quarrying at the fourteen borrow pits be allowed to proceed but that mitigation actions be carried out at MR531/55.1/R/50 (Site 1) and MR531/63.9/R/150 (Sites 2, 3, 4 & 5) as outlined above. The cottage at OP585/0/L/320 should be avoided during excavation and damage to the tree line at MR534/25.65/R/520 should be kept to a minimum. Rehabilitation of the OP585/0/L/320 site, which lies immediately adjacent to Aurora is important.

It should be noted that this study is one of several that will inform on which areas of the surveyed polygons will be excavated and that mitigation of the Stone Age artefact scatters (Sites 1 – 5) is only necessary should they be impacted by the quarrying activities. If any of the above five sites are not mitigated then care should be taken to avoid their damage during quarrying as this will ensure their preservation for the future. If these pits might be quarried further in the future then it might be sensible to mitigate all five sites anyway.

Although it is highly unlikely to become an issue, it should be borne in mind that the distribution of LSA burials is very unpredictable and that burials could be encountered in very sandy locations. During clearing of sandy topsoil a careful watch should be maintained for any human bones and if any are seen work should cease in the immediate area and the find should be reported to Heritage Western Cape immediately. An archaeologist will be required to remove the remains and document any information pertaining to the burial that may still be evident.

## **6. REFERENCES**

Manhire. A. 1987. Later Stone Age settlement patterns in the Sandveld of the south-western Cape Province, South Africa. Oxford: British Archaeological Reports International Series 351.

## **7. INVESTIGATION TEAM**

Fieldwork: J. Orton  
E. Finnegan

Report: J. Orton