

**A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR FIVE PROPOSED BORROW PITS,  
WHITTLESEA AREA NEAR QUEENSTOWN, LUKHANJI LOCAL MUNICIPALITY, EASTERN  
CAPE PROVINCE.**

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**TABLE OF CONTENTS**

1. EXECUTIVE SUMMARY	2.
2. BACKGROUND INFORMATION	3.
3. BRIEF LEGISLATIVE REQUIREMENTS	4.
4. BRIEF ARCHAEOLOGICAL BACKGROUND	6.
5. DESCRIPTION OF THE PROPERTY	6.
6. ARCHAEOLOGICAL INVESTIGATION	10.
7. DESCRIPTION OF SITES	23.
8. GPS CO-ORDINATES AND SITES FOR THE FIVE PROPOSED BORROW PITS NEAR WHITTLESEA.	24.
9. RECOMMENDATIONS	25.
10. GENERAL REMARKS AND CONDITIONS	26.
11. APPENDIX B: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers	27.

## A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR FIVE PROPOSED BORROW PITS, WHITTLESEA AREA NEAR QUEENSTOWN, LUKHANJI LOCAL MUNICIPALITY, EASTERN CAPE PROVINCE.

NOTE: This report follows the minimum standard guidelines required by the South African Heritage Resources Agency (SAHRA) for compiling a Phase 1 Archaeological Impact Assessment (AIA).

### 1. EXECUTIVE SUMMARY

#### 1.1. Purpose of the Study

The purpose of the study was to conduct and compile a phase 1 archaeological impact assessment (AIA) for five proposed borrow pits in Whittlesea near Queenstown, Lukhanji Local Municipality, Eastern Cape Province. The survey was conducted to establish the range and importance of the exposed and *in situ* archaeological heritage material remains, sites and features; to establish the potential impact of the development; and to make recommendations to minimize possible damage to the archaeological heritage.

#### 1.2. Brief Summary of Findings

The five borrow pits and the surrounding areas were investigated for possible archaeological heritage remains. No archaeological heritage remains features or sites were observed within the areas proposed for the extension of the existing borrow pits.

#### 1.3. Recommendations (See page 25 for full recommendations)

The area is of a low cultural sensitivity, and development may proceed as planned, however, the following recommendations must be considered:

1. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/excavation can be undertaken.
2. Construction managers/foremen should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

## 2. BACKGROUND INFORMATION

The Eastern Cape Department of Roads and Public Works proposes to apply for permits for five borrow pits in the Whittlesea area near Queenstown in the Lukhanji Local Municipality. SRK Consulting has been appointed by Goba Consulting Engineers as the independent consultants to assess the environmental impacts in terms of the Mineral and Petroleum Resources Development Act (MPRDA 2002). The development requires the authorisation from the Department of Minerals Resources.

Although the environmental impact from the proposed development is anticipated to be low, SRK nevertheless proposes a comprehensive suite of specialist input into the Scoping and Environmental Management Programme report (EMPr) with a view to addressing all potential questions from IAPs and/or the Department of Mineral Resources (DMR).

The phase 1 archaeological impact assessment (AIA) report has been prepared as part of the Scoping and EMPr process.

The description and locality of the five proposed borrow pits have been tabulated and are as follows:

Road	Material	Latitude	Longitude	Description of Locality	Village
R67	Purple Shale	32°03'39.90"S	26°47'09.90"E	Km 14.2 at intersection with DR12729	MacBride
DR02518	Decomposed Dolerite	32°12'54.90"S	26°47'34.50"E	1.5km on DR02518 from MR 00680	Sada Prison
DR01030	Purple Shale	32°07'42.50"S	26°44'57.90"E	600m from junction with DR12730	Poplar Grove
AC40087	Blue Shale	32°06'50.00"S	26°41'44.50"E	700m from DR12730	(near Qumbu Village)
DR12729	Decomposed Dolerite	32°05'56.90"S	26°41'46.20"E	Km 9.7 at junction with DR12730	Tsolwana Game Reserve Road

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**Terms of Reference (ToR)**

- Archaeological desktop study and phase 1 archaeological impact assessment (AIA) survey of possible archaeological heritage sites and material remains within the area of the proposed borrow pits;
- Establish the range and importance of the exposed and in situ archaeological heritage features and remains including graves;
- Identify the potential impact of development; and
- Make recommendations to minimise possible damage to these sites.

**3. BRIEF LEGISLATIVE REQUIREMENTS**

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

***Archaeology, palaeontology and meteorites***

*35 (4) No person may, without a permit issued by the responsible heritage resources authority—*

- (a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;*
- (b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;*
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or*

*archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.*

### ***Burial grounds and graves***

36. (3) (a) *No person may, without a permit issued by SAHRA or a provincial heritage resources authority—*

- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;*
- (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or*
- (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.*

### ***Heritage resources management***

38. (1) *Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as -*

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) the construction of a bridge or similar structure exceeding 50m in length;*
- (c) any development or other activity which will change the character of the site -*
  - (i) exceeding 5000m<sup>2</sup> in extent, or*
  - (ii) involving three or more erven or subdivisions thereof; or*
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA, or a provincial resources authority;*
- (d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

#### 4. BRIEF ARCHAEOLOGICAL BACKGROUND

Very little systematic archaeological research has been conducted within the immediate area of the five proposed borrow pits near Whittlesea. However, several archaeological sites and painted rock shelters have been documented in the surrounding area towards Queenstown, Tarkastad, Cathcart, and Adelaide that are held in the Department of Archaeology, Albany Museum database. Derricourt (1977) has also documented several sites within the surrounding area.

The documented sites comprise mainly painted rock shelters either with or without archaeological deposit. The two nearest sites to the proposed area for the five borrow pits area situated and south of Whittlesea. A painted rock shelter is situated in the mountains approximately 10km east of Whittlesea. An open site, approximate 10 km south west of Whittlesea in the Sada area was excavated in 1995 as part of an educational school's excavation run by Lita Webley (Albany Museum).

No other archaeological impact assessments have been conducted within the immediate area of the five proposed borrow pits.

#### REFERENCES

Department of Archaeology, Albany Museum database.

Derricourt, R.M. 1977. *Pre-Historic Man in the Ciskei Transkei*. Cape Town: Struik.

#### 5. DESCRIPTION OF THE PROPERTY

##### 5.1. Area Surveyed

The five proposed borrow pits are located near the small town of Whittlesea south of Queenstown. One borrow pit is situated adjacent to the R67 (BP1) main road to Queenstown. The four remaining borrow pits are situated adjacent or close to gravel roads between the villages of surrounding Whittlesea.

##### 5.2. Map

1:50 000 maps: 3226BA KUZITUNGU and 3226BB SADA

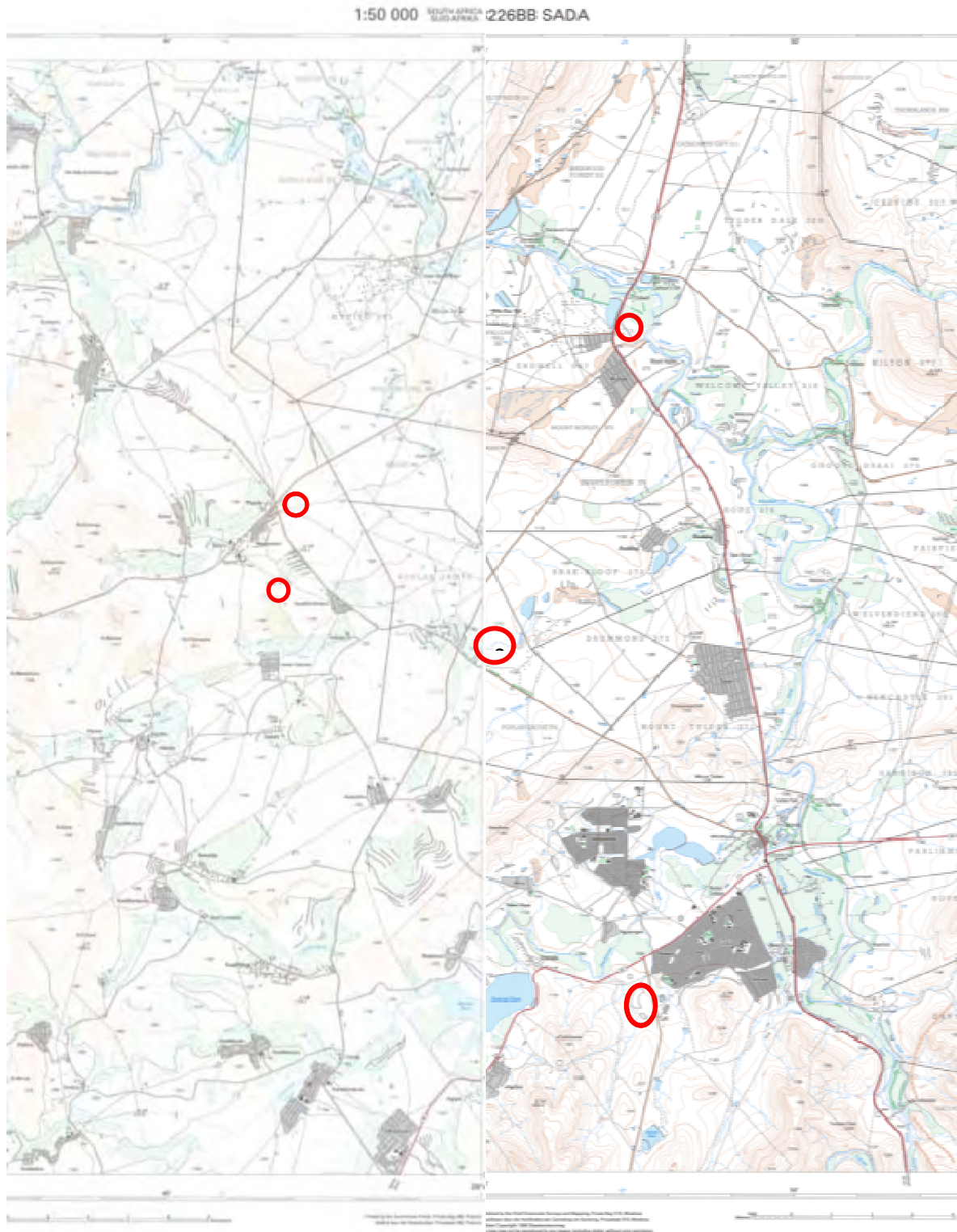


Figure 1. Map 1. 1:50 000 topographic maps 3226BA KUZITUNGU and 3226BB SADA showing the locations of the five proposed borrow pits (Red circles).





Figure 2. Map 2. Aerial view of the locations of the five proposed borrow pits.

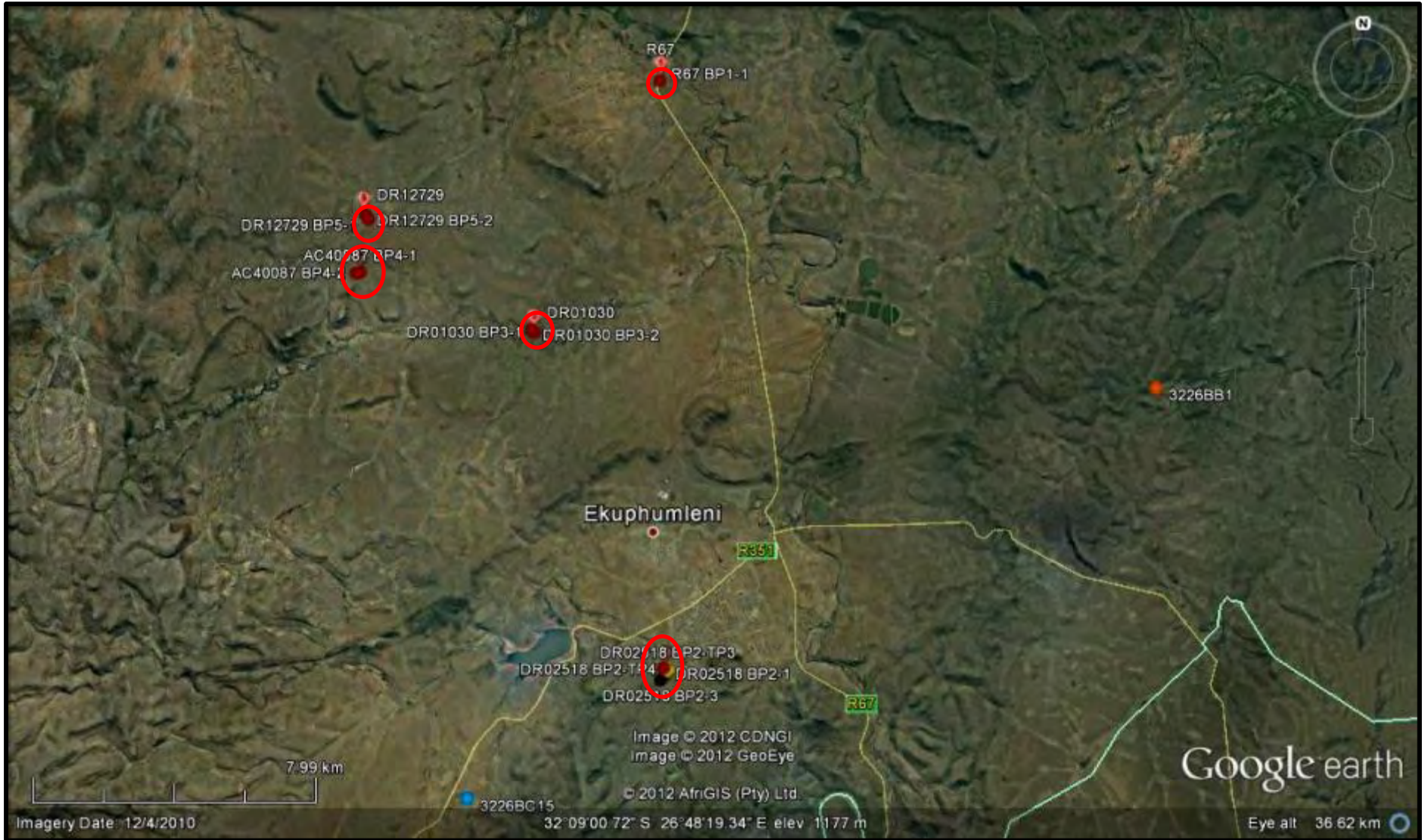


Figure 3. Map 3. Close-up aerial view of the five proposed borrow pits.

## 6. ARCHAEOLOGICAL INVESTIGATION

The archaeological investigation was conducted on foot focusing on the five areas proposed for the borrow pits. The GPS co-ordinate readings and photographs were taken using a Garmin Oregon 550 unit. The general GPS readings have been plotted on Maps 2-10. The methodology and archaeological investigation for each borrow pit will be discussed separately.

### 6.1. R67 (BP1):



Figure 4. Map 4. Close-up aerial view of the borrow pit adjacent to the R67 road.

Borrow pit 1 (BP1) is situated adjacent to the R67 secondary road between Whittlesea and Queenstown opposite MacBride Village, north of the small town of Whittlesea. The existing borrow is approximately 100 m x 50 m in extent and about 4 m deep and was investigated for possible archaeological material remains, features, and sites (Figures 5-6). The surrounding area is mainly covered in dense grass vegetation obscuring and making archaeological visibility difficult (Figure 7). An unused reservoir is situated on the edge of the borrow pit.

No archaeological material remains, features, or sites were observed within the existing borrow pit area or the proposed area for extension of the borrow pit.



Figure 5. View of the existing borrow adjacent to the R67.



Figure 6. View of the landscape surrounding the borrow pit adjacent to the R67.

## 6.2. DR02518 (BP2):



Figure 7. Map 5. Close-up aerial view of the borrow pit adjacent to the DR02518 opposite Sada Correctional Services.

Borrow pit 2 (BP2) is situated adjacent to the DR02518 gravel road within the Sada area east of the Sada Correctional Services. The existing borrow is approximately 700 m x 200 m in extent and about 4 m deep on the slope and was investigated for possible archaeological material remains, features, and sites (Figures 8-10). Five test pits situated east of the existing borrow pit on the slope were also investigated for possible archaeological material remains, features, and sites (Figures 11-12). The surrounding area is mainly covered in dense grass vegetation obscuring and making archaeological visibility difficult. Large boulders occur east on the hillock and south towards a large donga on the flat lands. Two packed stone features occur at the area marked DR02518 BP2-3 (black circle) (Figure 13). These may be associated with previous quarrying activities or resemble *isisivane* (see Appendix A, point 3).

No other archaeological material remains, features, or sites were observed within the existing borrow pit area or the proposed area for extension of the borrow pit.



Figure 8. View of the borrow pit.



Figure 9. View of the borrow pit.



Figure 10. View of the borrow pit.



Figure 11. Example of one of the test pits.



Figure 12. Example of one of the test pits.



Figure 13. View of the two packed stone features.



## 6.2. DR01030 (BP3):



Figure 14. Map 8. Close-up aerial view of the borrow pit adjacent to the DR01030 near Poplar Grove.

Borrow pit 3 (BP3) is situated adjacent to the DR01030 gravel road close to Poplar Grove. The existing borrow is approximately 200 m x 50 m in extent and about 2 m deep on the slope and was investigated for possible archaeological material remains, features, and sites (Figure 15). The surrounding area is mainly covered in dense grass vegetation obscuring and making archaeological visibility difficult (Figures 16-17).

No other archaeological material remains, features, or sites were observed within the existing borrow pit area or the proposed area for extension of the borrow pit.



Figure 15. View of the existing borrow pit.



Figure 16. View of the area north of the existing borrow pit.



Figure 17. View of the area north of the existing borrow pit.

### 6.3. AC40087 (BP4):



Figure 18. Map 9. Close-up aerial view of the borrow pit adjacent to the AC40087 near Qumbu Village.

Borrow pit 4 (BP4) is situated adjacent to the AC40087 gravel road near Qumbu Village. The existing borrow is approximately 75 m x 65 m in extent and about 4 m deep on the slope and was investigated for possible archaeological material remains, features, and sites (Figure 19). The surrounding area is mainly covered in dense grass vegetation obscuring and making archaeological visibility difficult (Figures 20). A formal graveyard (black square) is situated about 150 m south-west of the existing borrow pit (Figure 21).

No other archaeological material remains, features, or sites were observed within the existing borrow pit area or the proposed area for extension of the borrow pit.



Figure 19. View of the existing borrow pit.



Figure 20. View of the landscape.



Figure 21. View of the graveyard situated 150 m south-east of the existing borrow pit.

#### 6.4. DR12729 (BP5):



Figure 22. Map 10. Close-up aerial view of the borrow pit adjacent to the DR12729 on the Tsolwana Game Reserve Road near Mceula Village.

Borrow pit 5 (BP5) is situated adjacent to the DR12729 gravel road on the Tsolwana Game Reserve road near Mceula Village. The existing borrow is approximately 150 m x 105 m in extent and about 4 m deep on the slope and was investigated for possible archaeological material remains, features, and sites (Figures 23-24). The surrounding area is mainly covered in dense grass vegetation obscuring and making archaeological visibility difficult (Figures 25).

No other archaeological material remains, features, or sites were observed within the existing borrow pit area or the proposed area for extension of the borrow pit.

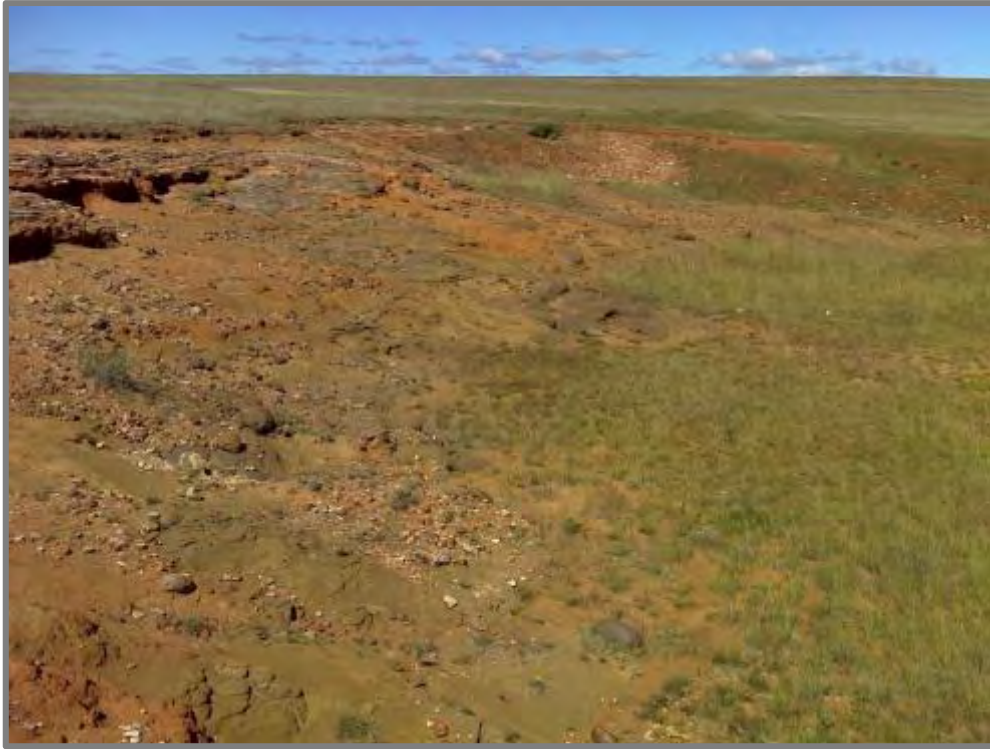


Figure 23. View of the existing borrow pit.



Figure 24. View of the existing borrow pit.



Figure 25. View of the surrounding landscape north of the existing borrow pit.

## 7. DESCRIPTION OF SITES

No archaeological heritage remains, features or sites were documented within the areas proposed for the five borrow pits. However, two stone packed features resembling *isisivane* were observed at borrow pit 2 (BP2) adjacent to the DR02518 opposite the Sada Correctional Services.



8. GPS CO-ORDINATES AND SITES FOR THE FIVE PROPOSED BORROW PITS NEAR WHITTLESEA.

TABLE 1. GPS CO-ORDINATES AND SITES FOR THE FIVE PROPOSED BORROW PITS NEAR WHITTLESEA

REFERENCE	DESCRIPTION	CO-ORDINATES
BP1-R67	Borrow Pit 1	32° 03' 39.90" S; 26° 47' 09.90" E
R67 BP1-1	General reading	32° 03' 40.50" S; 26° 47' 09.10" E
BP2-DR02518	Borrow Pit 2	32° 12' 54.90" S; 26° 47' 32.50" E
DR02518 BP2-1	General reading	32° 12' 52.70" S; 26° 47' 33.60" E
DR02518 BP2-2	General reading	32° 13' 00.10" S; 26° 47' 35.30" E
DR02518 BP2-3	Packed stones	32° 13' 04.50" S; 26° 47' 30.30" E
BP2-4 TP1	Test Pit	32° 12' 55.20" S; 26° 47' 38.80" E
BP2-4 TP2	Test Pit	32° 12' 54.50" S; 26° 47' 39.20" E
BP2-4 TS3	Test Pit	32° 12' 53.80" S; 26° 47' 37.90" E
BP2-4 TS4	Test Pit	32° 12' 54.30" S; 26° 47' 37.40" E
BP2-4 TS5	Test Pit	32° 12' 54.20" S; 26° 47' 37.00" E
BP3-DR01030	Borrow Pit	32° 07' 42.50" S; 26° 44' 57.90" E
DR01030 BP3-1	General reading	32° 07' 41.50" S; 26° 44' 59.00" E
DR01030 BP3-2	General reading	32° 07' 38.40" S; 26° 44' 55.00" E
BP4-AC40087	Borrow Pit 4	32° 06' 50.00" S; 26° 41' 44.50" E
AC40087 BP4-1	General reading	32° 06' 49.90" S; 26° 41' 44.20" E
AC40087 BP4-2	General reading	31° 06' 51.20" S; 23° 41' 39.80" E
BP5-DR12729	Borrow Pit 5	32° 05' 56.90" S; 26° 41' 46.20" E
DR12729 BP5-1	General reading	32° 06' 00.40" S; 26° 41' 51.80" E
DR12729 BP5-2	General reading	32° 05' 55.80" S; 26° 41' 48.00" E

## 9. RECOMMENDATIONS

The area is of a low cultural sensitivity, and development may proceed as planned, however, the following recommendations must be considered:

1. A 50 m perimeter boundary should be established around the two stone packed features at BP2 adjacent to the DR02518.
2. Damage to the reservoir at BP1 adjacent to the R67 near MacBride Village should be avoided during the development activities.
3. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/excavation can be undertaken.
4. Construction managers/foremen should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

## 10. GENERAL REMARKS AND CONDITIONS

**NOTE:** This report is a phase 1 archaeological impact assessment (AIA) only and does not include or exempt other required specialist assessments as part of the heritage impact assessments (HIAs).

The National Heritage Resources Act (Act No. 25 of 1999, Section 35 [Brief Legislative Requirements]) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources including all places or objects of aesthetics, architectural, historic, scientific, social, spiritual, linguistic, or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.

It must be emphasized that the conclusions and recommendations expressed in this phase 1 archaeological impact assessment (AIA) are based on the visibility of archaeological remains, features and, sites and may not reflect the true state of affairs. Many archaeological remains, features and, sites may be covered by soil and vegetation and will only be located once this has been removed. In the event of such archaeological heritage being uncovered (such as during any phase of construction activities), archaeologists or the relevant heritage authority must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed. The onus is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Resources Act No. 25 of 1999 (NHRA 25 of 1999).

Archaeological Specialist Reports (desktops and AIA's) will be assessed by the relative heritage resources authority. The final decision rests with the heritage resources authority that may confirm the recommendations in the archaeological specialist report and grant a permit or a formal letter of permission for the destruction of any cultural sites.

## APPENDIX A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers

### 1. Human Remains:

All human remains exposed during all the phases of the construction activities must be reported to the archaeologist, nearest museum or relevant heritage resources authority. Construction must be halted until the archaeologist has investigated and removed the human remains. Human remains may be exposed when a grave or informal burial has been disturbed. In general, the remains are buried in a flexed position on the side and may also be buried in a sitting position with a flat stone capping the location of the burial. Developers are requested to be aware of the exposing human remains.

### 2. Stone Artefacts:

Stone artefacts are difficult for the layman to identify. Large accumulations of flaked stones that do not appear to have been distributed naturally must be reported. If the stone artefacts are associated with bone / faunal remain or any other associated organic and material cultural artefacts development must be halted immediately and reported to the archaeologist, nearest museum or relevant heritage resources authority.

### 3. Large Stone Features:

Large stone features occur in different forms and sizes, however, are relatively easy to identify. The most common features are roughly circular stone walls (mostly collapsed), usually dry packed stone, and may represent stock enclosures, the remains of wind breaks or, cooking shelters. Other features consist of large piles of stones of different sizes and heights are known as *isisivane*. These features generally occur near river and mountain crossings. The purpose and meaning of the *isisivane* are not fully understood, however, interpretations include the representation of burial cairns and symbolic value.

### 4. Freshwater Shell Middens:

Accumulations of freshwater shell middens comprising mainly freshwater mussel occur along the muddy banks of rivers and streams and were collected by pre-colonial communities as a food resource. The freshwater shell middens generally contain stone artefacts, pottery, bone and, sometimes even human remains. Freshwater shell middens may be of various sizes and depths, an accumulation that exceeds 1m<sup>2</sup> in extent must be reported to the archaeologist, nearest museum or, relevant heritage resources authority.

#### 5. Historical Artefacts and Features:

These are relatively easy to identify and include the foundations and remains of buildings, packed dry stone walling representing domestic stock kraals. Other items include historical domestic artefacts such as ceramics, glass, metal and military artefacts and dwellings.

#### 6. Fossil Bone:

Fossil bones may be embedded in geological deposits. Any concentrations of bone whether fossilized or not must be reported.