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Heritage Impact Assessment for a water supply project near Giyani

*Evaluation of the heritage component of the Environmental
Impact Assessment for a water supply project near Giyani
(Giyani ABP, Sub-project 2, NP058), Northern Province*

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Giyani ABP, Sub-Project 2, NP058

Evaluation of the Heritage Potential of the Project

Executive Summary

Project Title: Giyani ABP, Sub-Project 2, NP058

Site name and location: Southern Giyani Municipality, Focus Area 3, including villages Bambeni, Gidya, Maboko, Mamphata, Mamphata South, Munghongoma, Nkomo A.

Magisterial district: Giyani

Developer: Department of Water Affairs and Forestry

Consultant: AINP, PO Box 7296, Thohoyandou, 0950, South Africa

Date development was mooted: September, 2001

Date of Report: 14 February 2002

Proposed date of commencement of development: March 2002

Findings: It is the finding of the consultant that the proposed development of the water supply system can continue, as the sites involved are already developed and no sites of cultural, historical or archaeological value were found.

Introduction

Archaeo-Info Northern Province (AINP) was contracted by Fauna Galore Environmental Consultants to conduct a Heritage Impact Assessment (HIA) on the proposed development of a water supply system near Giyani in the villages of Bambeni, Gidy'a, Maboko, Mamphata, Mamphata South, Munghongoma, Nkomo A.

This HIA forms part of the Environmental Impact Assessment (EIA) as required by the Environmental Conservation Act (ECA) 73 of 1989, the Minerals Act, 50 of 1991 and the Development Facilitation Act (DFA), 67 of 1995. The HIA is performed in accordance with section 38 of the National Heritage Resources Act (NHRA), 25 of 1999 and is intended for submission to the South African Heritage Resources Agency (SAHRA).

Location

The proposed sites are all located on existing developed sites. The mentioned villages can be found on the following 1:50 000 maps: 2330 BC, - BD, -DA, DB and 2331 AC – CA.

The specific locations of the sites are indicated by GPS readings.

Fieldwork

Members of AINP met with Dr. D. Engelbrecht on 6 February 2002 on site during which the survey was performed by a professional archaeologist assisted by a fieldworker.

The extent of the sites was determined as well as the extent of the areas to be affected by secondary activities during the development of the sites. Sites were plotted with GPS readings and photographed using colour prints in 100 ASA format.

Methodology

The area was surveyed using standard archaeological surveying methods. The area was surveyed using directional parameters supplied by the GPS and surveyed by foot.

Standard archaeological documentation formats were employed in the description of sites. Using standard site documentation forms as comparable medium, it enabled the surveyors to evaluate the relative importance of sites found. Furthermore GPS (Global Positioning System) readings of all finds and sites were taken. This information was then plotted using a *Magellan 2000 XL* GPS (*Cape* datum).

Indicators such as surface finds, plant growth anomalies, local information and topography were used in identifying sites of possible archaeological importance. Test probes were done at intervals to determine sub-surface occurrence of archaeological material. The importance of sites was assessed by comparisons with published information as well as comparative collections. All sites or possible sites found were classified using a hierarchical system wherein sites were assessed using a scale of zero to four according their importance. These categories are as follows;

Degree of significance	Justification	Score
Exceptional significance	Rare or outstanding, high degree of intactness. Can be interpreted easily.	4
High significance	High degree of original fabric. Demonstrates a key element of item's significance. Alterations do not detract from significance.	3
Moderate significance	Altered or modified elements. Element with little heritage value, but which contribute to the overall significance.	2
Little significance	Alterations detract from significance. One of many Alterations detract from significance.	1
Intrusive	Damaging to the item's heritage significance.	0

Cultural Importance and Oral History

The investigation of a site for heritage components should not only look at the material remains that are found on sites, but there should also be looked at the intangible aspects of cultural importance for the local communities. Furthermore there should also be looked at the possibility of culturally important areas being found in the study area. These could include graves, places of power or initiation schools and any other area that is seen as culturally sensitive to the local communities.

No such sites were identified during the study.

The Sites

After extensive investigations, both on the surface and subterranean, no indication could be found to suggest that any sites of cultural or historical value was or is present in the proposed area to be developed.

SITE 1

Bambeni

GPS: 23° 29' 27" S

30° 42' 12" E

This site is already developed and the existing borehole and structure will be refurbished (photo 1). All possible finds, if any were therefor destroyed or damaged during the original development.

SITE 2

Mamphata

GPS: 23° 30' 45" S

30° 45' 39" E

As with the previous site, this site is already developed and the existing borehole and structures will be refurbished (photo 2). All possible finds, if any were therefor destroyed or damaged during the original development.

SITE 3

Mamphata South

GPS: 23° 30' 37" S

30° 44' 35" E

As with the previous sites, this site is already developed and a further development of a 8 m electrified line will take place (photo 3). All possible finds, if any were therefor destroyed or damaged during the original development.

SITE 4

Munghongoma

GPS: 23° 32' 28" S

30° 47' 12" E

As with the previous site, this site is already developed and the existing borehole and structures will be refurbished (photo 4). All possible finds, if any were therefor destroyed or damaged during the original development.

SITE 5

Gidya

GPS: 23° 33' 01" S

30° 48' 16" E

As with the previous site, this site is already developed and the existing borehole and structures will be refurbished (photo 5). All possible finds, if any were therefor destroyed or damaged during the original development.

SITE 6

Maboko

GPS: 23° 26' 44" S

30° 45' 40" E

As with the previous site, this site is already developed and the existing borehole and structures will be refurbished (photo 6). All possible finds, if any were therefore destroyed or damaged during the original development.

SITE 7

Nkomo A

GPS: 23° 25' 06" S

30° 47' 11" E

As with the previous site, this site is already developed. A new pipeline of 250 m will be developed between the existing borehole and a reservoir (photo 7 & 8). All possible finds, if any were therefore destroyed or damaged during the original development.

Recommendations

All 7 sites discussed were already developed and any possible finds were destroyed or damaged during the original development. No sites of cultural or historical value were identified in the proposed area and it is the conclusion of AINP that the development can continue.

Conclusion

A heritage impact assessment was performed on 7 sites in villages near Giyani, namely Bambeni, Gidy'a, Maboko, Mamphata, Mamphata South, Mungphongoma, Nkomo A.

From a cultural heritage perspective the construction of the water supply system can continue.

References

1. Hartman, JB. & Kriel, J.D. 1991. *Gazankulu en sy Mense*. Pretoria: University of Pretoria.
2. Loubser, J.H.N. 1991. *The Enoarchaeology of Venda-speakers in Southern Africa*. Navorsinge van die Nasionale Museum Bloemfontein, Vol. 7, part 8. August 1991.
3. Stary, H.A. 1968. *The Bawenda*. London: Frank Cass & Co. Ltd.

ADDENDUM A

PHOTOGRAPHS

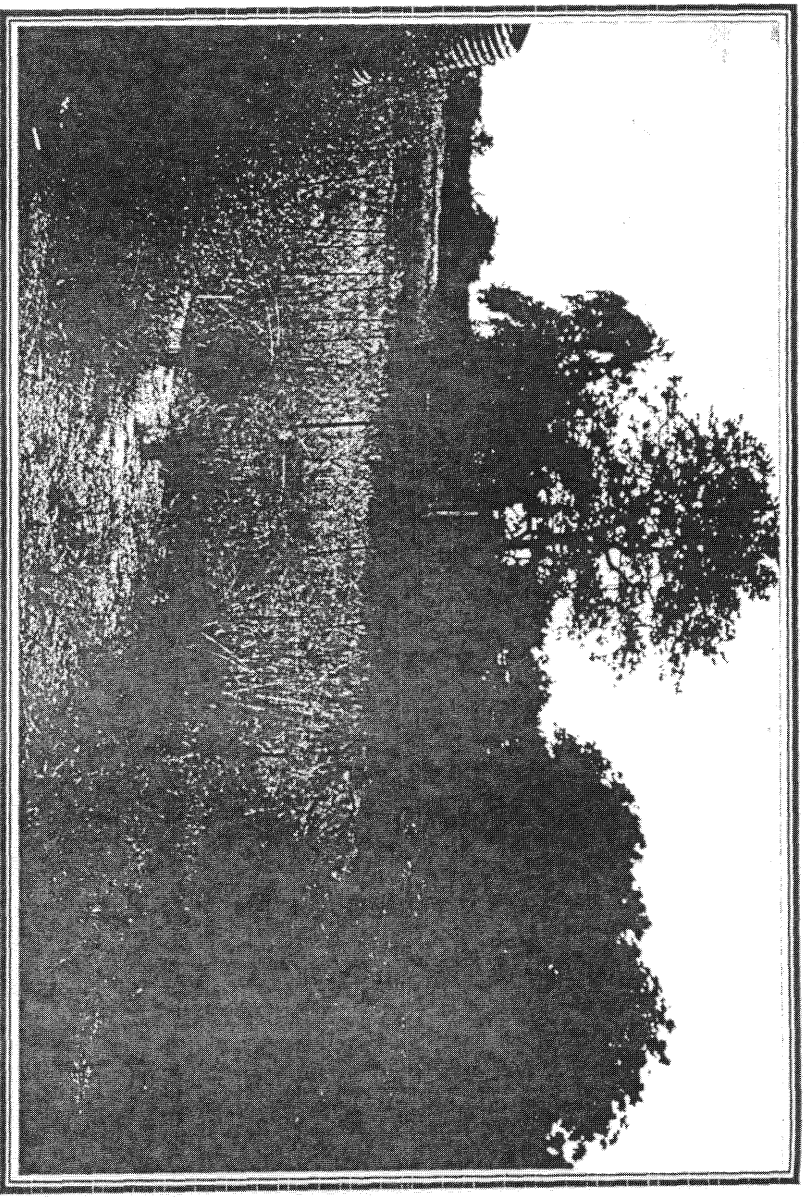


Photo 1. Site 1 (Bantbeni borehole).

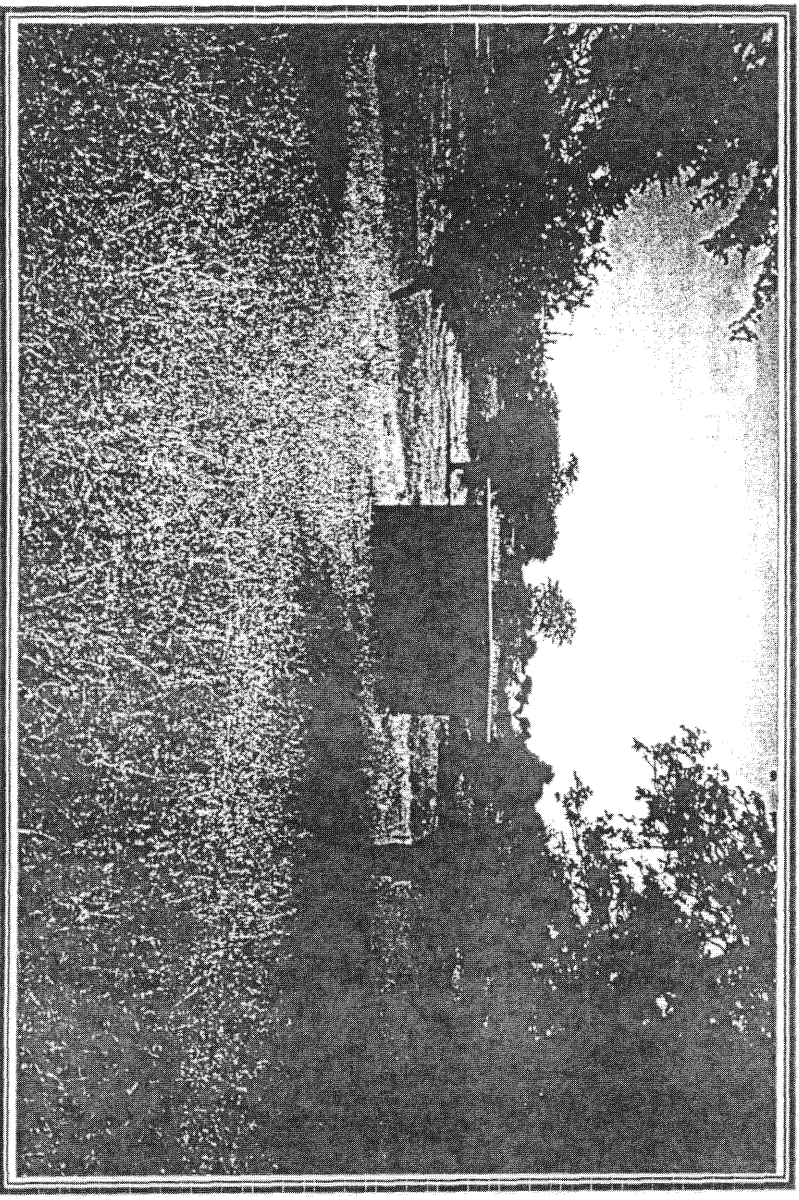


Photo 2. Site 2 (Mamphata village borehole).

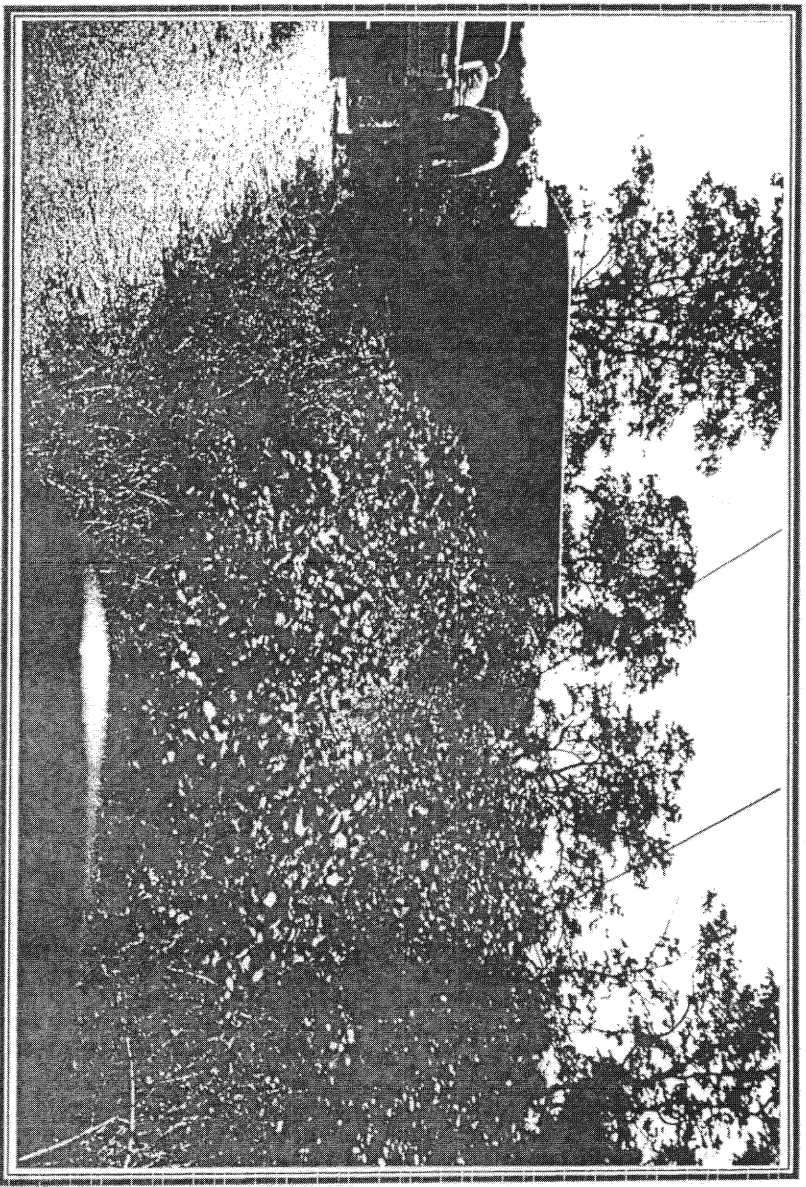


Photo 3. Site 3 (Mamphala South electrified line).

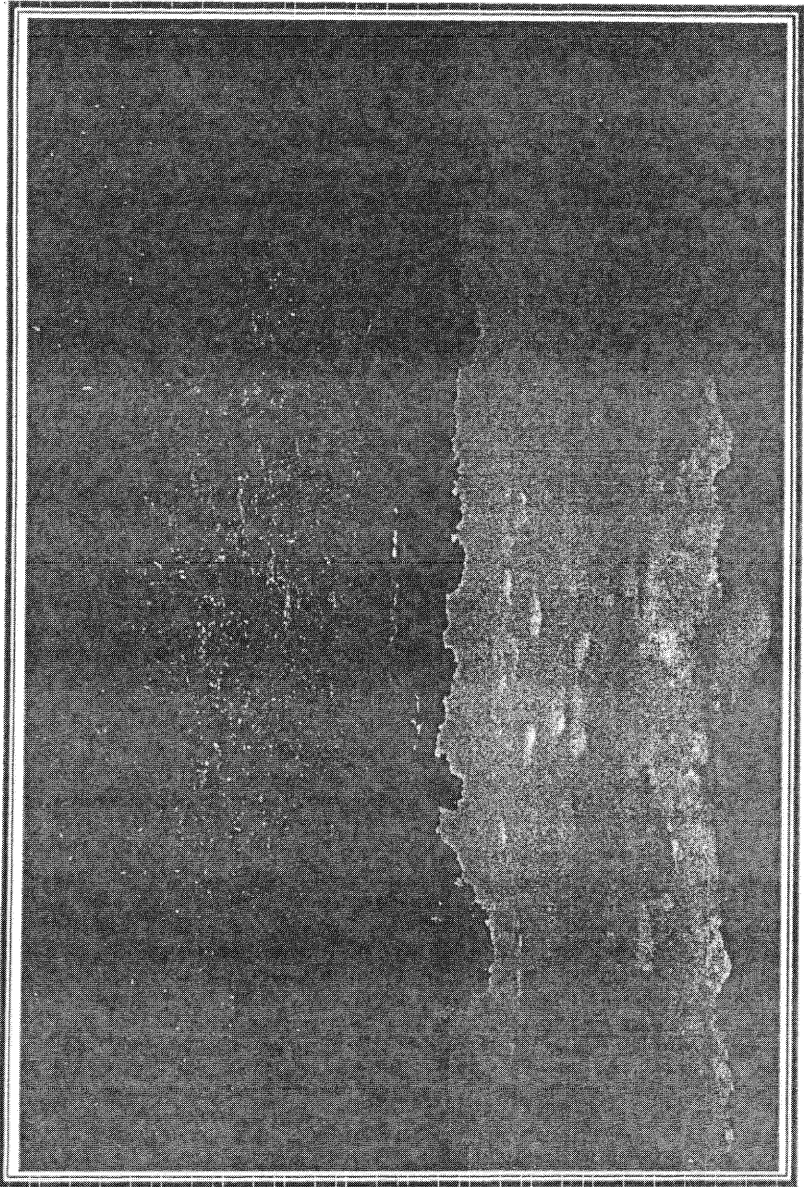


Photo 4. Site 4 (Munghongoma borehole).

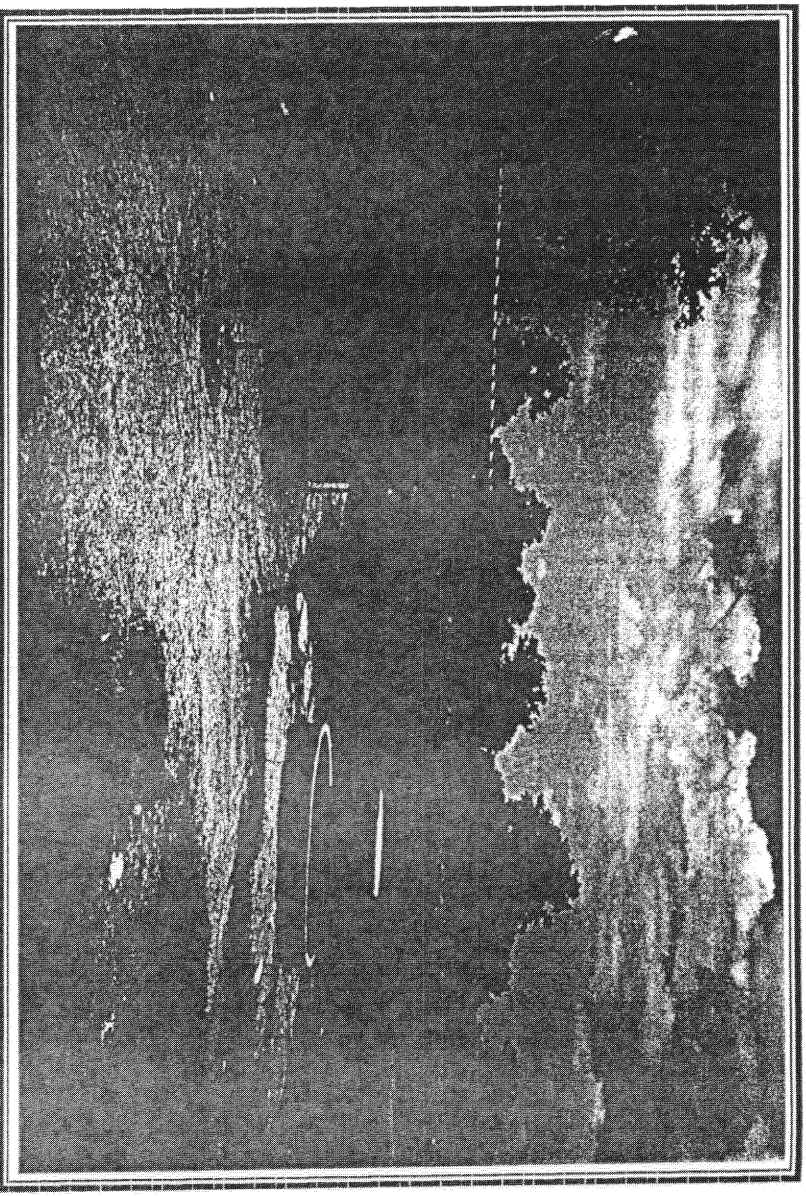


Photo 5. Site 5 (Gidya borehole).

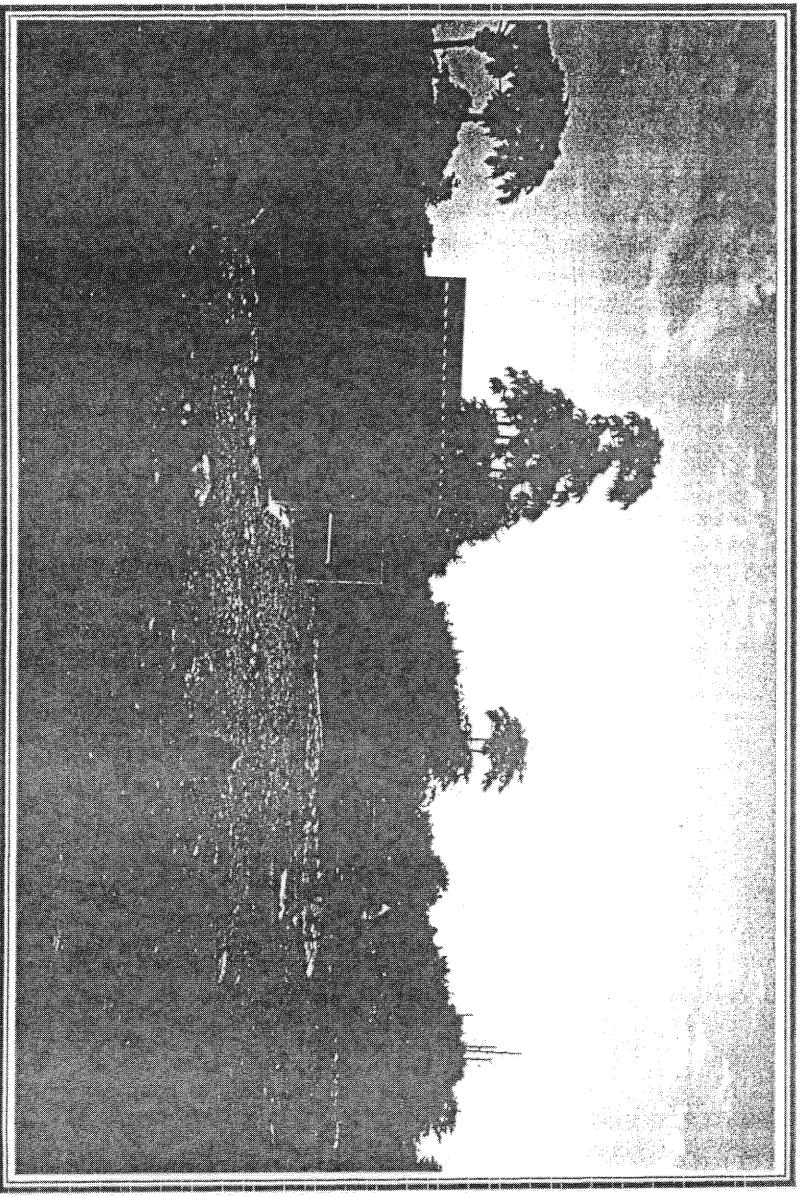


Photo 6. Site 6 (Maboko borehole).

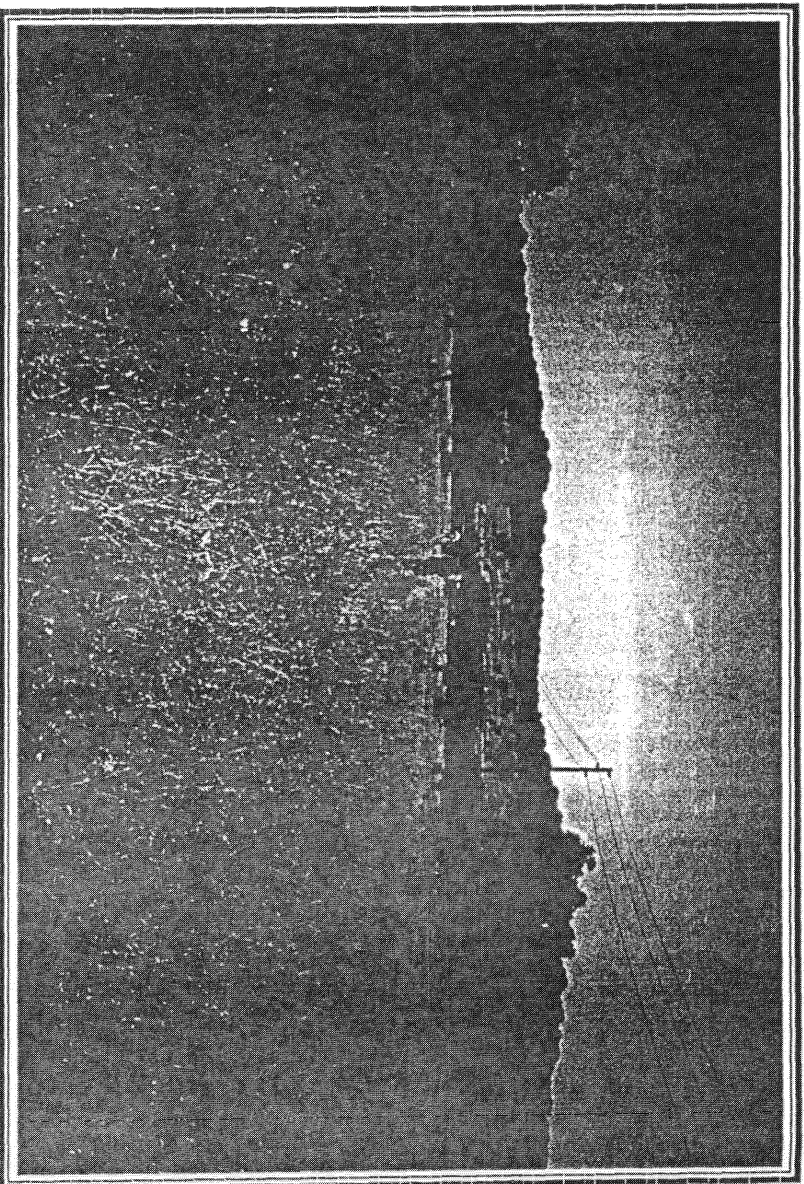


Photo 7. Site 7 (Nkomo A pipeline towards borehole).

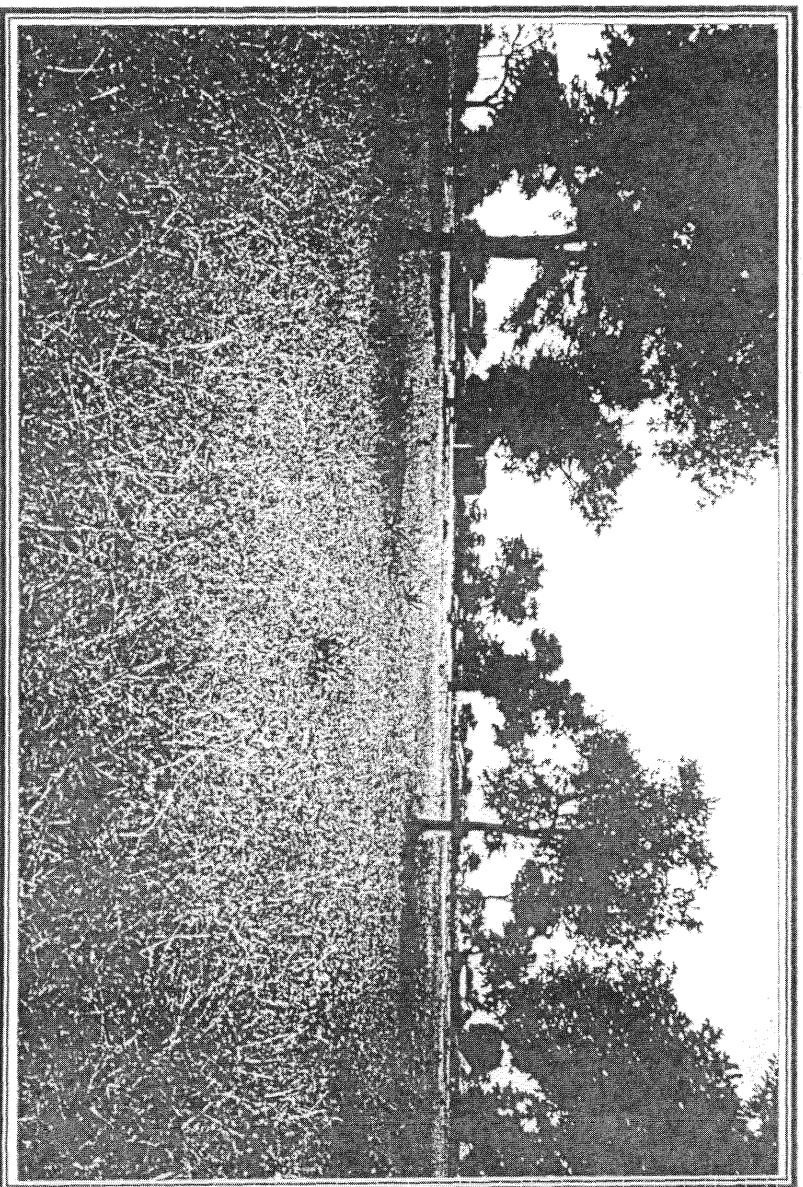
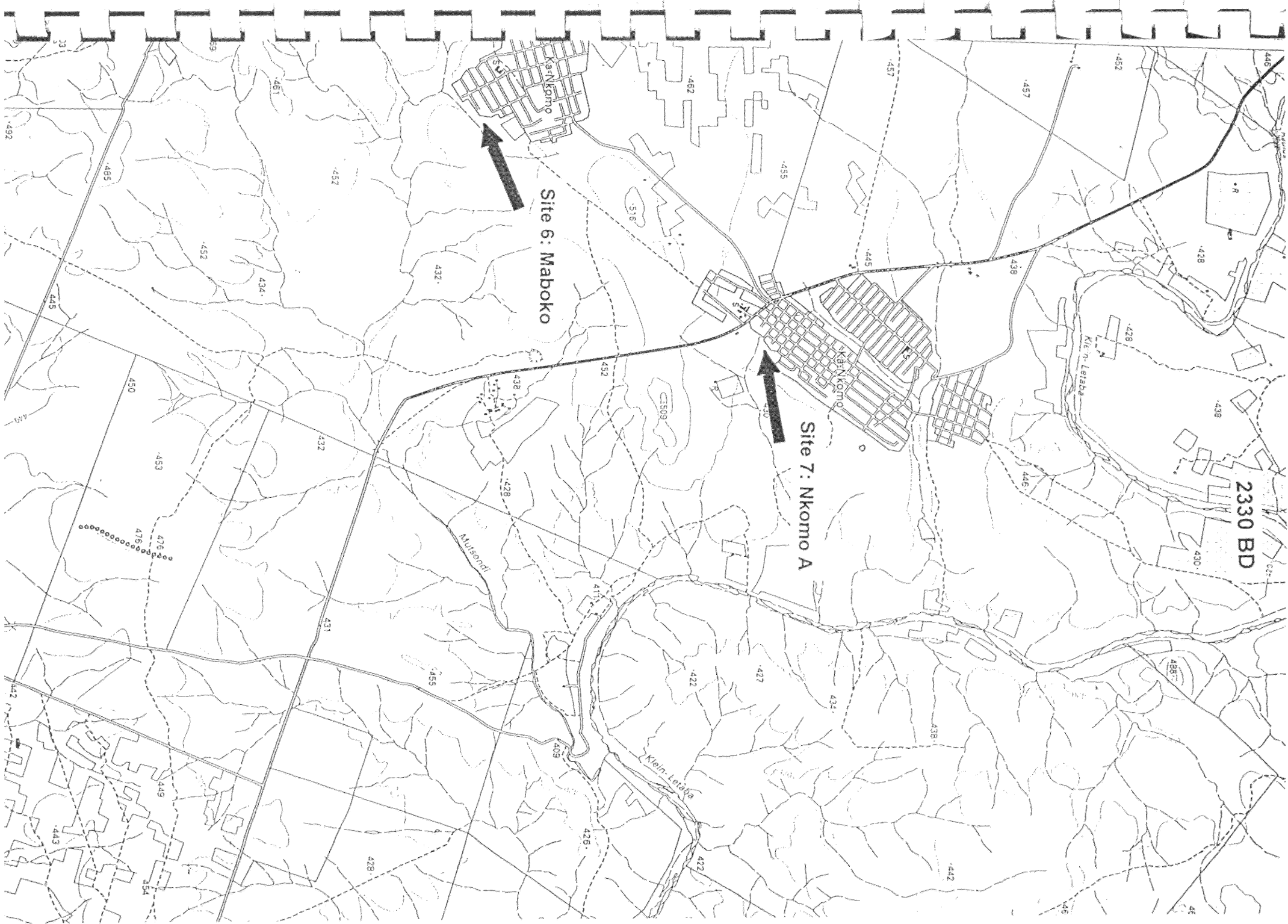


Photo 8. Site 8 (Nkomo A pipeline towards reservoir).

ADDENDUM B

LOCATION MAP





2330 DA

Site 3: Mamphata



2330 DE

Site 2: Mamphata

Site 4: Munghongoma

Site 5: Gidya

ADDENDUM F

Water Quality Guidelines for Domestic Use

SUMMARISED WATER QUALITY GUIDELINES FOR DOMESTIC USE

CONSTITUENT	CONCENTRATION ⁺
ALUMINIUM	0.15 – 0.5
AMMONIA	0 – 1 (mg/l N)
ARSENIC	0 – 10 (µg/l)
ASBESTOS	0 – 1 * 10 ⁶ (Fibres/l)
ATRAZINE	0 – 2 (µg/l)
CADMIUM	0 – 5 (µg/l)
CALCIUM	0 – 32
CHLORIDE	0 – 100
CHROMIUM ^{VI}	0 – 0.050
COPPER	0 – 1
DISSOLVED ORGANIC CARBON	0 – 5 (mg C/l)
FAECAL COLIFORMS	0 (counts/ 100 ml)
FLUORIDE	0 – 1
FREE AVAILABLE CHLORINE	0.3 – 0.6
IRON	0 – 0.1
LEAD	0 – 10 (µg/l)
MAGNESIUM	0 – 30 (mg/l as Mg)
MANGANESE	0 – 0.05
MERCURY	0 – 1 (µg/l)
NITRATE/NITRITE	0 – 6 (mg/l N)
pH	6 – 9 ^f
PHENOLS	0 – 1 (µg/l)
POTASSIUM	0 – 50
SELENIUM	0 – 20 (µg/l)
SODIUM	0 – 100
SULPHATE	0 – 200 (mg/l as SO ₄ ²⁻)
TOTAL COLIFORMS	0 – 5 (count/100 m)
TOTAL DISSOLVED SOLIDS	0 – 450 at 0 – 70 mS/m Electrical Conductivity
TOTAL HARDNESS	50 – 100 (mg/l as CaCO ₃)
TRICHALOMETHANES	0 – 100 (µg/l)
TURBIDITY	0 – 1 (NTU)
VANADIUM	0 – 0.1
ZINC	0 – 3

^f = no units

⁺ = mg/l unless otherwise specified

Source: South African water quality guidelines, Volume 1: Domestic Water Use, Second Edition, 1996

ADDENDUM G

Approval of Plan of Study

Ref: 16/1/3/4 - 50
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Fauna Galore Environmental Consultants
P O Box 446
FAUNA PARK
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ATTENTION: DR G.D. ENGELBRECHT

**APPLICATION FOR AUTHORISATION: BULK WATER SUPPLY FOR
GIVANI SOUTH**

Please use abovementioned reference number in future correspondence.

The Department would like to acknowledge receipt of the following documentation, for the abovementioned application:

- a) an Application form;
- b) Declaration of independence by Consultant; and
- c) a Plan of Study for Scoping.

You are hereby requested to submit a Scoping Report, and to adhere to the guidelines as stipulated in the EIA guideline document.

An Environmental Management Plan for construction (EMP) must also be submitted. This EMP must give guidance to the civil engineers and contractors regarding environmental constraints as well as alternative ways of undertaking construction activities, in order to lessen the impact of construction.

Please feel free to contact this office if you have any queries.

Yours sincerely


for SUPERINTENDENT GENERAL.

03/01/2001
DATE

ADDENDUM H

Late and/or Additional Information