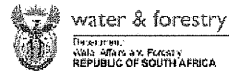
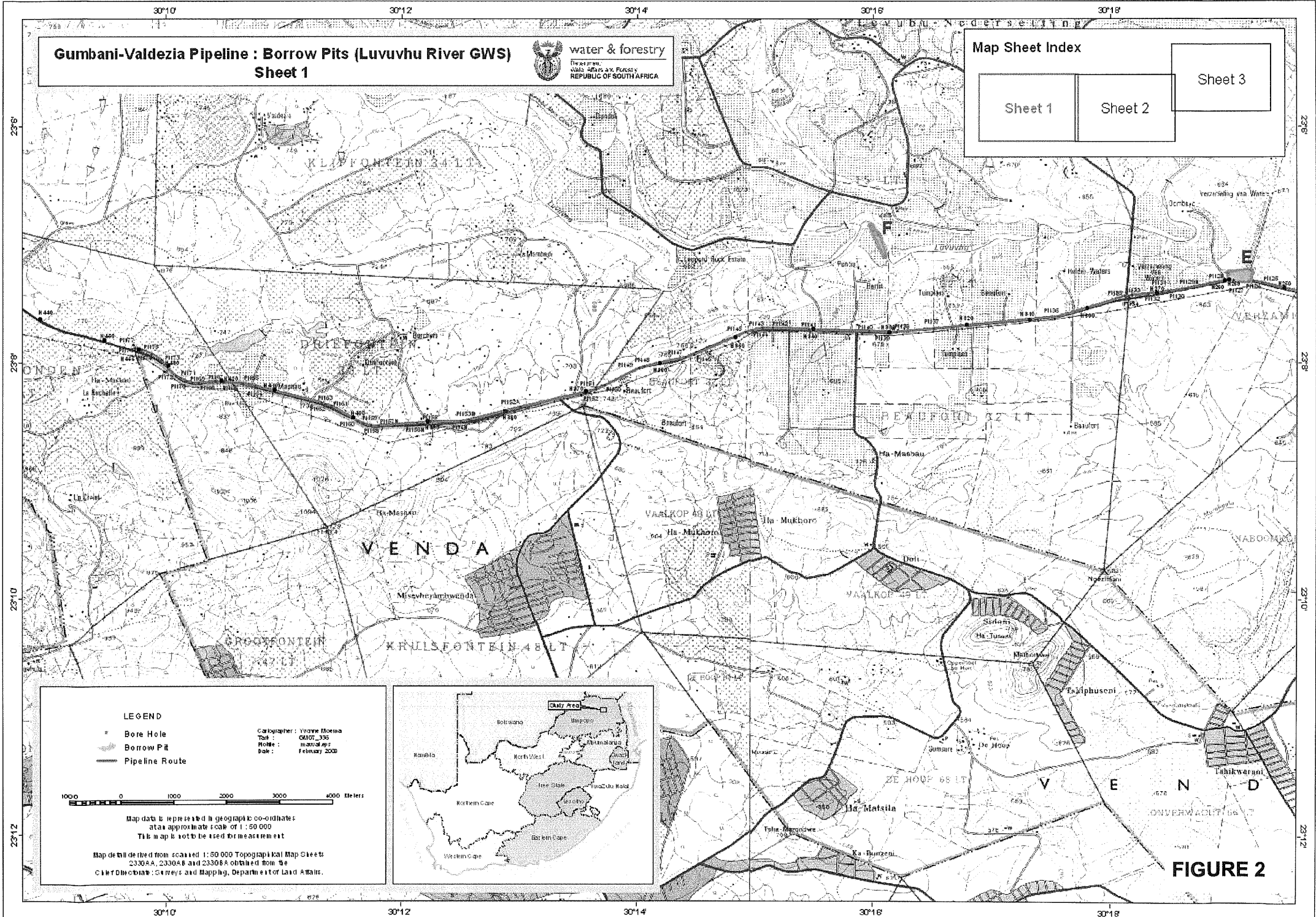
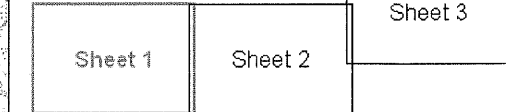


Figure 1: Project Locality Map

**Gumbani-Valdezia Pipeline : Borrow Pits (Luvuvhu River GWS)**  
**Sheet 1**



**Map Sheet Index**



**LEGEND**

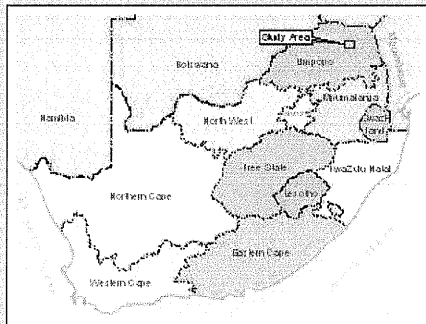
- Bore Hole
- Borrow Pit
- Pipeline Route

Cartographer: Yvonne Moxon  
 Title: GM07\_335  
 Month: March 2008  
 Date: February 2008



Map data is represented in geographic co-ordinates  
 at a approximate scale of 1:50 000  
 This map is not to be used for measurement

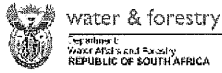
Map data derived from scanned 1:50 000 Topographic Map Sheets  
 2330AA, 2330AB and 2330BA obtained from the  
 Chief Director: Surveys and Mapping, Department of Land Affairs.



**FIGURE 2**

30°20' 30°22' 30°24' 30°26' 30°28' 30°30'

# Mavambe to Valdezia Pipeline : Borrow Pits (Luvuvhu River GWS) Sheet 2



Department of Water and Forestry  
REPUBLIC OF SOUTH AFRICA

### LEGEND

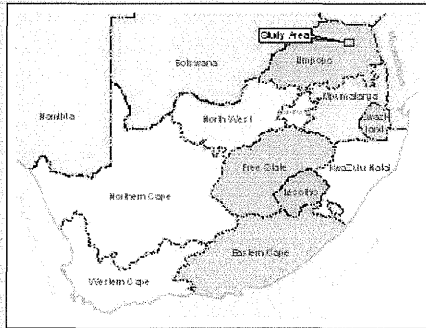
- Bore Hole
- Borrow Pit
- Pipeline Route

Cartographer : Yvonne Moema  
Task : GM07\_336  
Issue : 1  
Date : February 2008

0 1000 2000 3000 4000 Metres

Map data is represented in geographic co-ordinates  
at an approximate scale of 1:50 000  
This map is not to be used for measurement

Map is derived from scaled 1:50 000 Topographical Map Sheets  
2330AA, 2330AB and 2330BA obtained from the  
Cartographic Services and Mapping, Department of Land Affairs.



### Map Sheet Index

Sheet 1

Sheet 2

Sheet 3

29°58'

29°58'

29°10'

29°10'

29°58'

29°58'

29°10'

29°10'

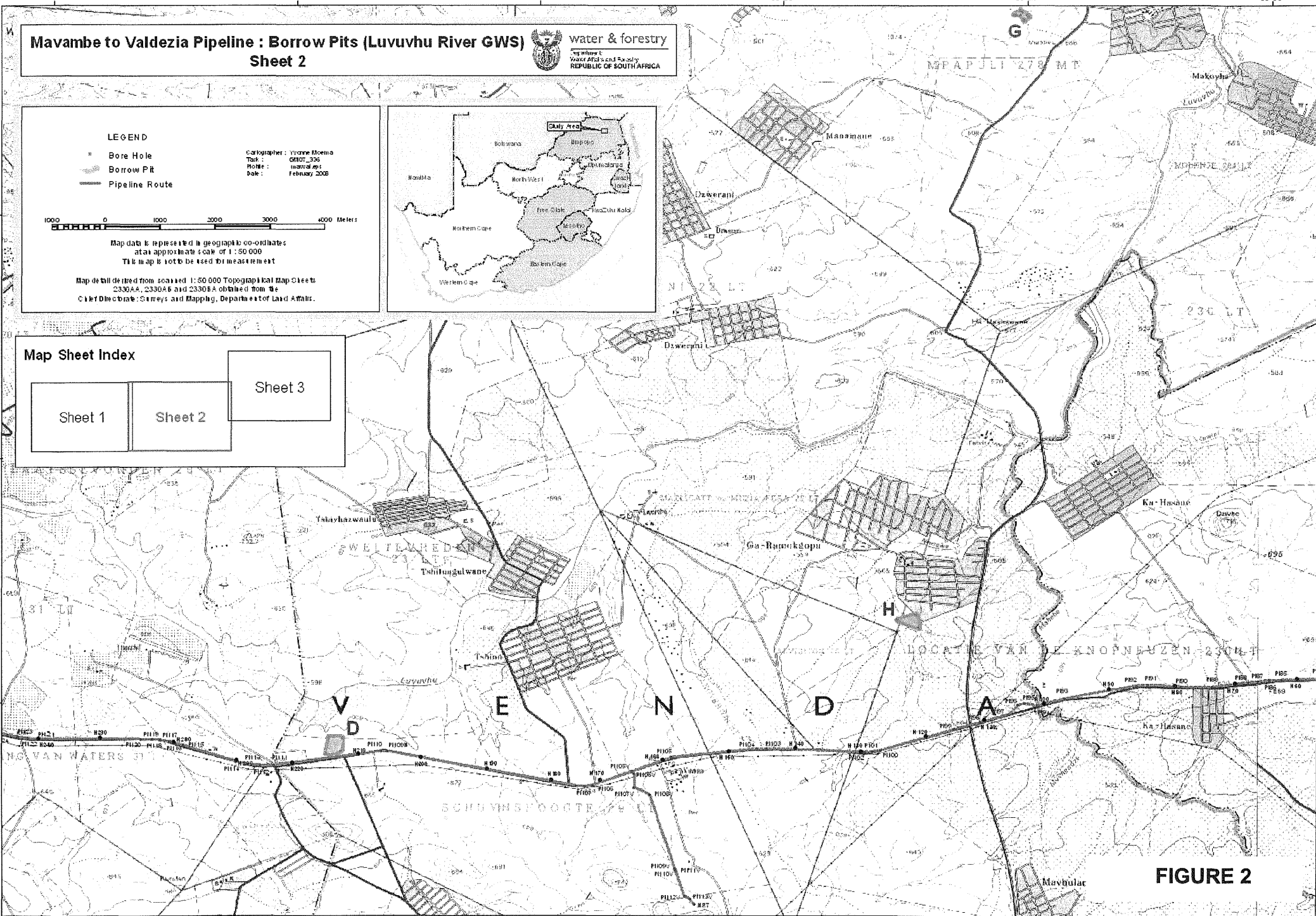
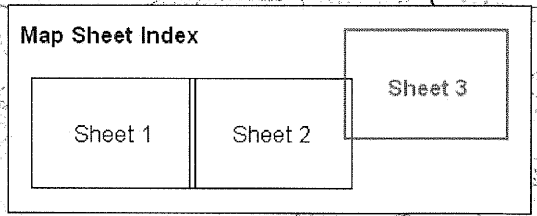
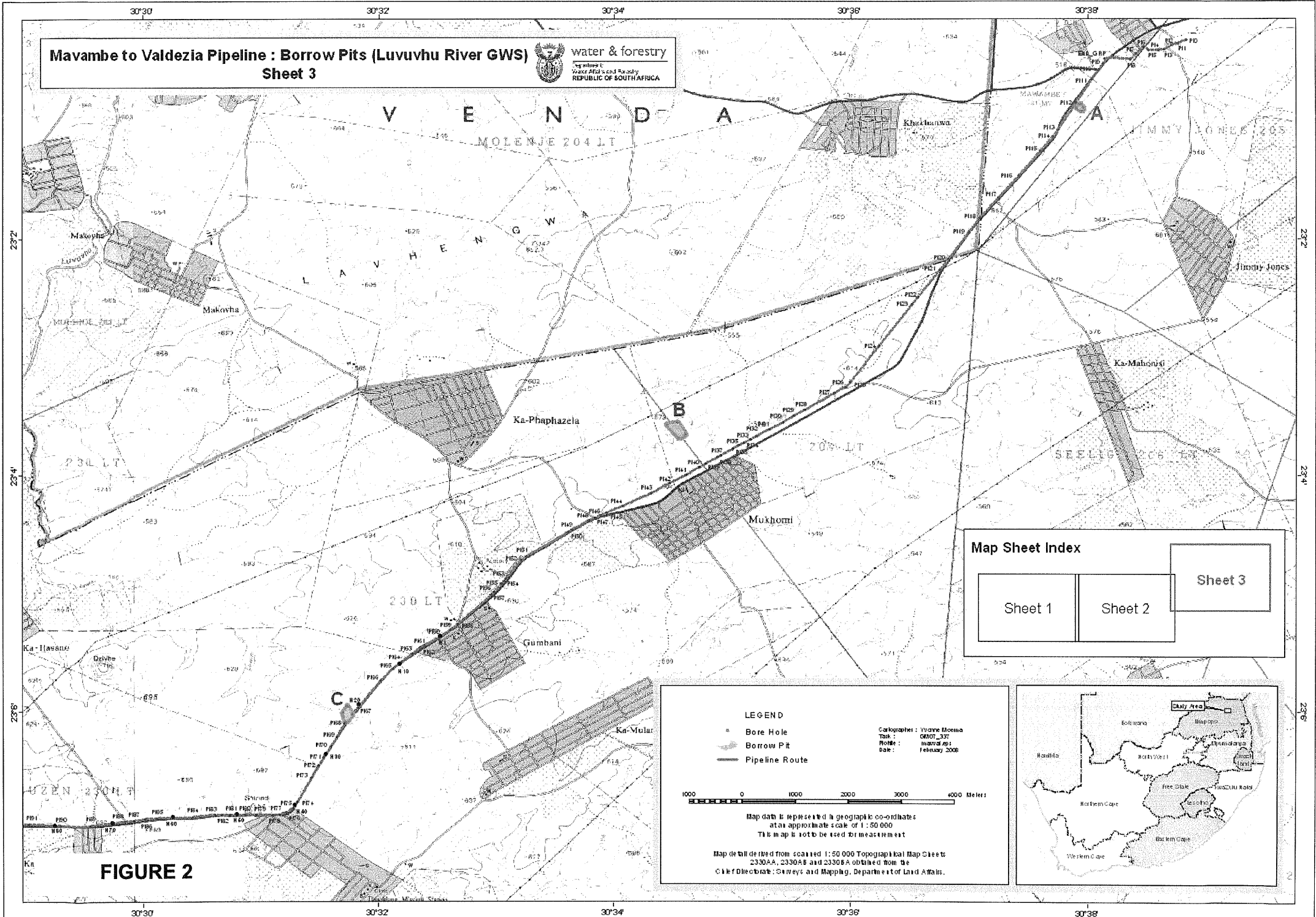
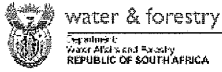


FIGURE 2

30°20' 30°22' 30°24' 30°26' 30°28' 30°30'

**Mavambe to Valdezia Pipeline : Borrow Pits (Luvuvhu River GWS)**  
**Sheet 3**



**LEGEND**

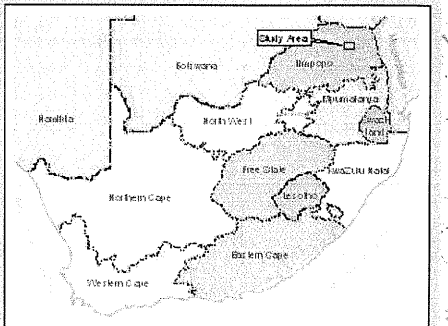
- Bore Hole
- Borrow Pit
- Pipeline Route

Cartographer : Vuyane Moema  
 Title : GWS\_337  
 Project : Mavambe to Valdezia  
 Date : February 2008

0 1000 2000 3000 4000 Meters

Map data is represented in geographic co-ordinates at an approximate scale of 1:50 000  
 This map is not to be used for measurement

Map detail derived from scaled 1:50 000 Topographical Map Sheets 2330AA, 2330AB and 2330BA obtained from the Chief Director: Surveys and Mapping, Department of Land Affairs.



**FIGURE 2**

### 3 LOCATION OF THE BORROW PIT

(Refer to

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
F	Vhembe	Beaufort 32-LT, Portion 5 and Levubu 15 – LT Portion 47	Haasbroek Phillip Rudolf and Shigalo communal Prop Assoc	MW3 700mm	Levuvhu River

### 4 EXTENT OF OPERATIONS

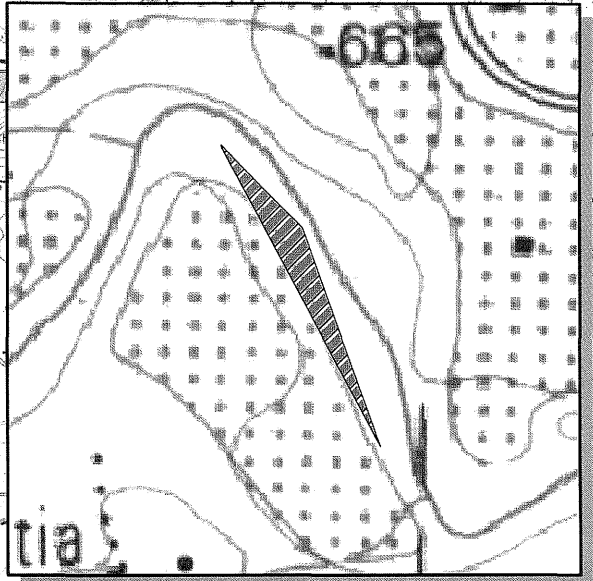
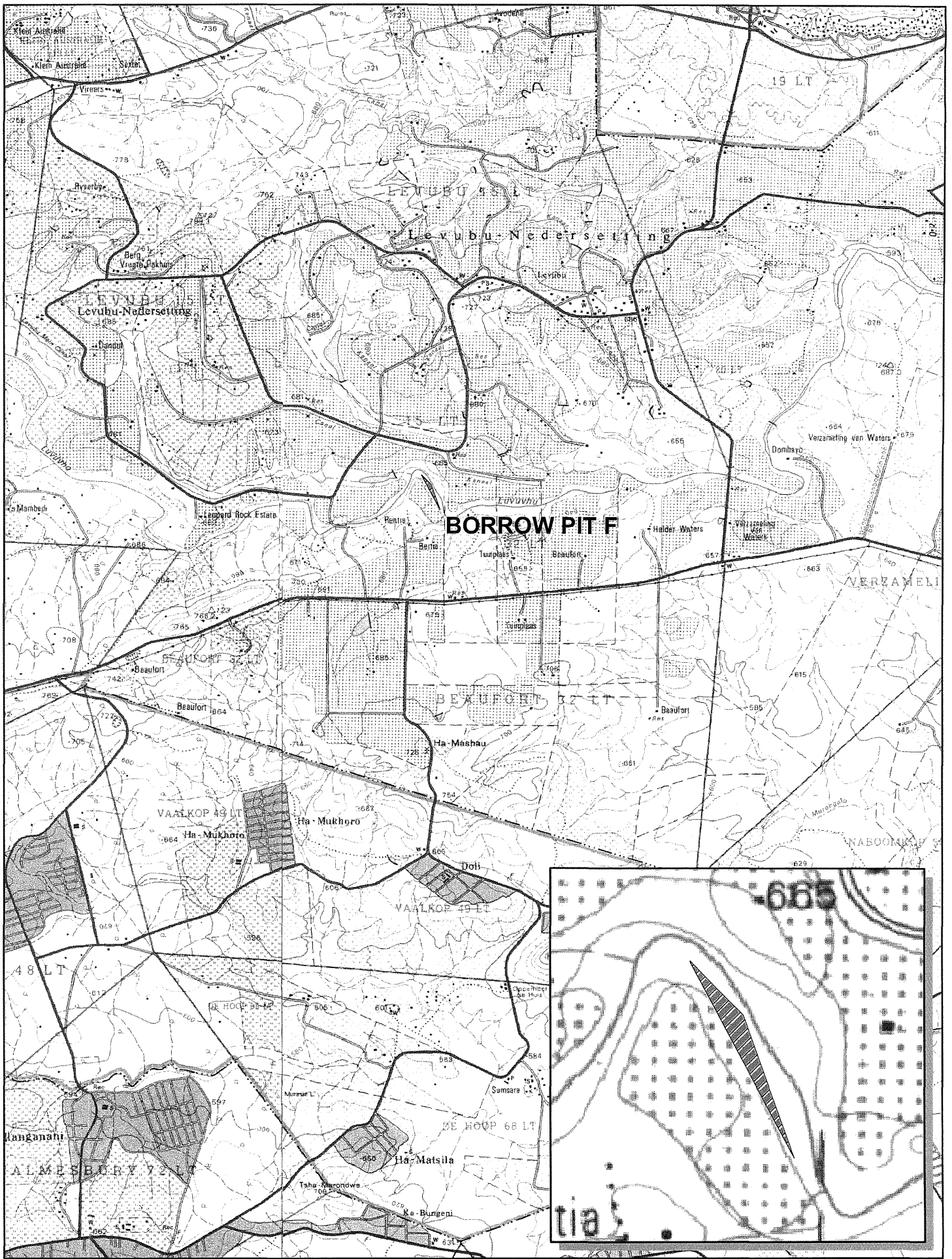
*Refer to table 2 for the following information:*


- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

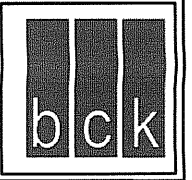
4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
F	23° 06' 54.2" S 30° 15' 59.9" E 23° 06' 56.7" S 30° 16' 01.7" E 23° 06' 58.9" S 30° 16' 03.8" E 23° 07' 09.7" S 30° 16' 07.0" E	Natural Sand Borrow Pit through Strip Excavation	Yes





 **LEVUVHU RIVER GOVERNMENT WATER SCHEME**  
 0 0.5 1 2 3 4 Km

**FIGURE 3:  
 LOCALITY MAP OF  
 BORROW PIT F**



### 3 LOCATION OF THE BORROW PIT

(Refer to

**Figure 1 for the Locality of the Borrow Pit)**

***Refer to Table 1 for the following information concerning the Borrow pit***

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
G	Vhembe	Mpapuli 278MT	Republiek van Suid Afrika	MW3 700mm	Levuvhu River

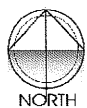
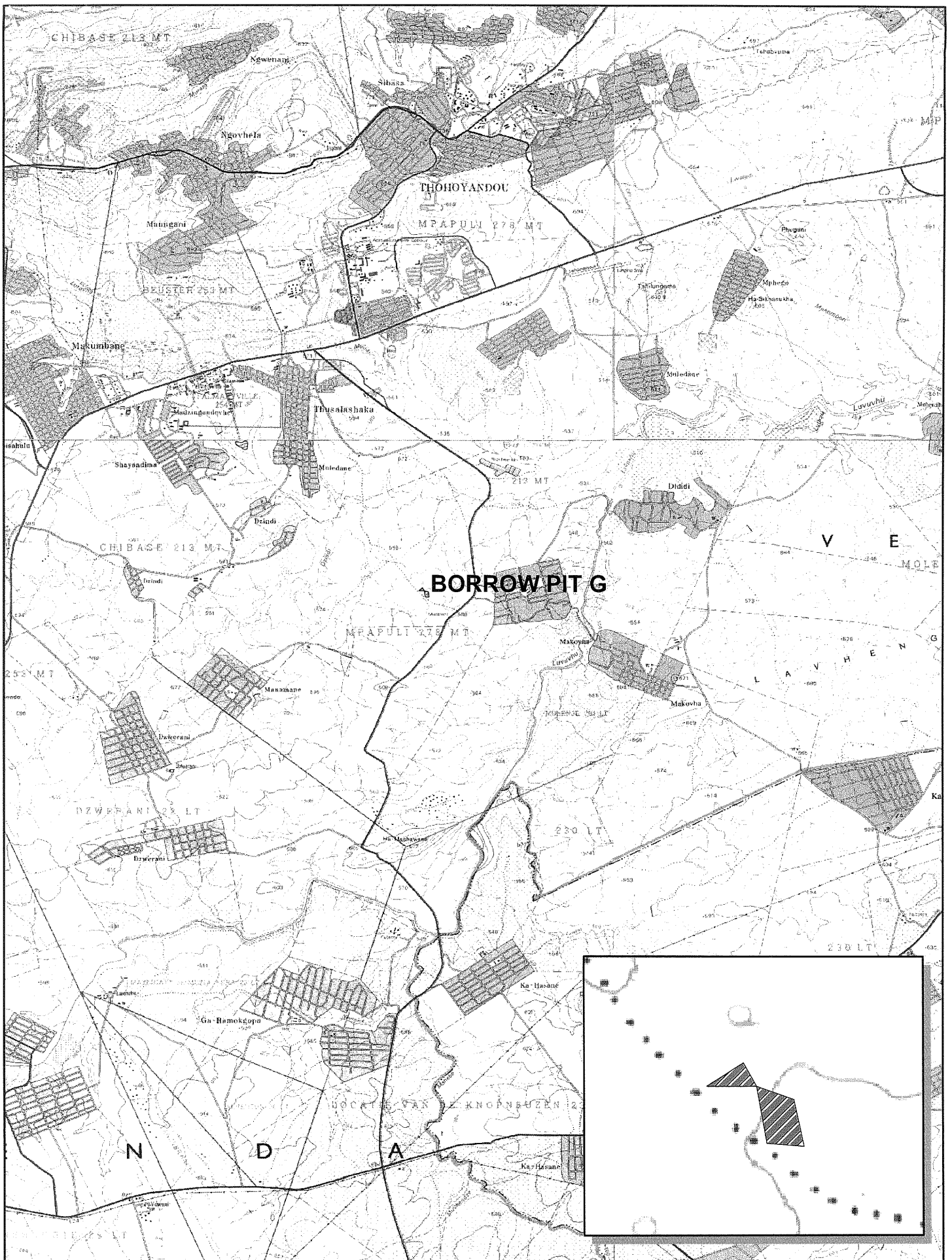
### 4 EXTENT OF OPERATIONS

***Refer to table 2 for the following information:***

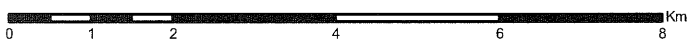
- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

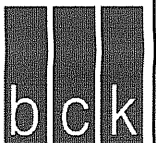
4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
G	23° 01' 38.0" S 30° 28' 05" E 23° 01' 37.0" S 30° 28' 05" E 23° 01' 36.0" S 30° 28' 07" E 23° 01' 35.0" S 30° 28' 06" E 23° 01' 34.0" S 30° 28' 04" E 23° 01' 33.0" S 30° 28' 03" E 23° 01' 34.0" S 30° 28' 00" E 23° 01' 35.0" S 30° 28' 01" E 23° 01' 35.0" S 30° 28' 03" E	Natural Sand Borrow Pit through Strip Excavation	Yes



**LEVUVHU RIVER GOVERNMENT WATER SCHEME**



**FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT G**





### 3 LOCATION OF THE BORROW PIT

(Refer to

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
H	Vhembe	Locatie van de Knopneuzen 230LT	Republic of South Africa	MW3 700mm	Levuvhu River

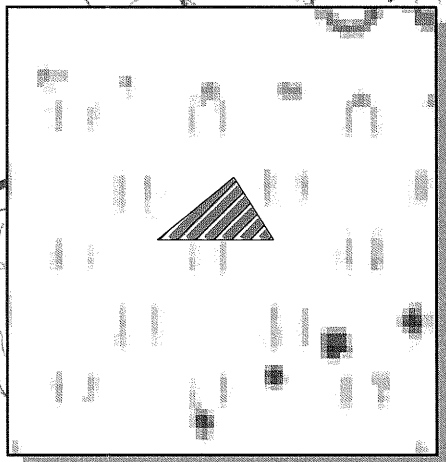
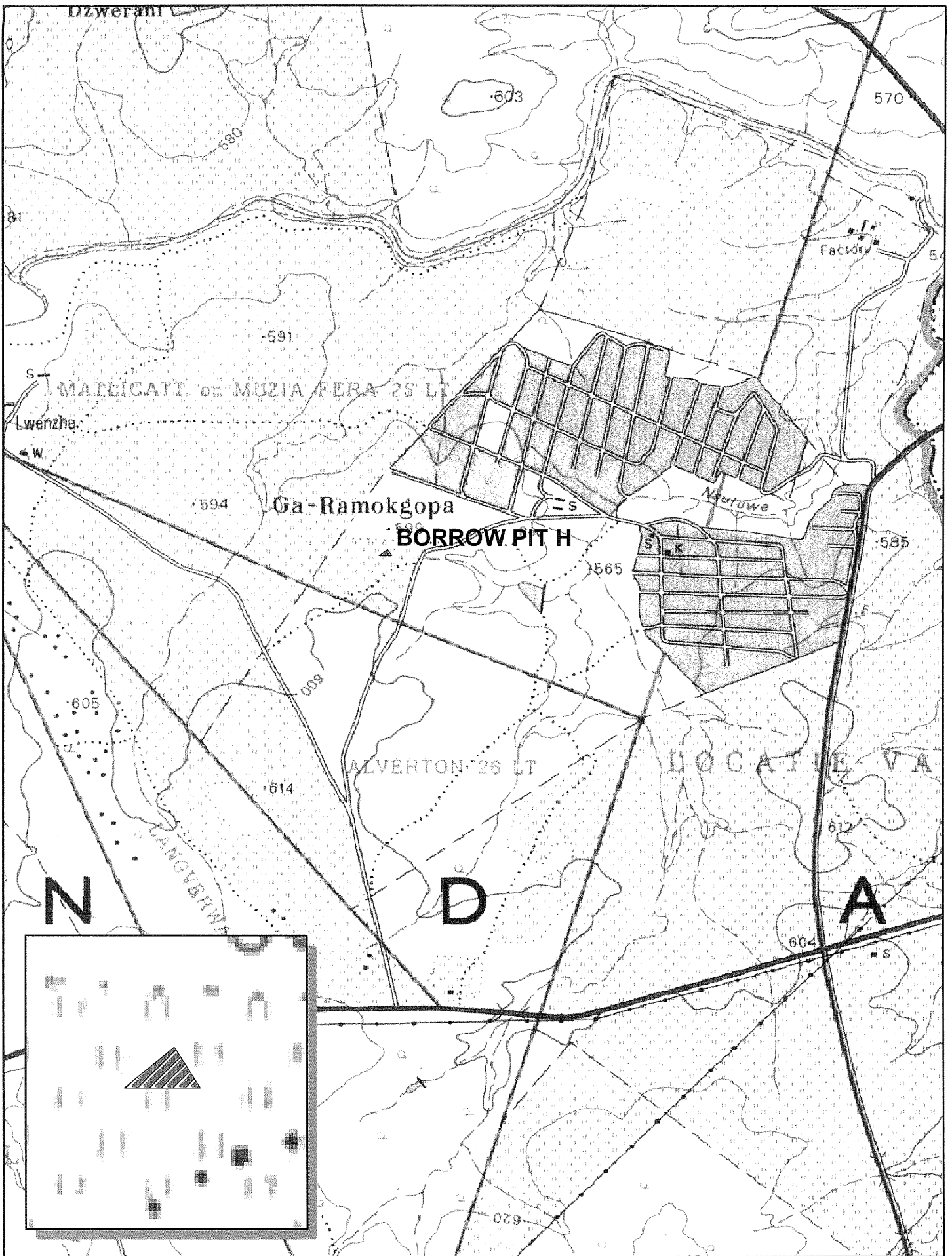
### 4 EXTENT OF OPERATIONS

*Refer to table 2 for the following information:*

- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

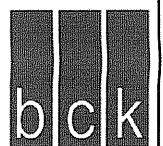
4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
H	23° 06.301' S 30° 26.722' E 23° 06.362' S 30° 26.736' E 23° 06.326' S 30° 26.632' E	Natural Sand Borrow Pit through Strip Excavation	Yes



LEVUVHU RIVER GOVERNMENT WATER SCHEME

0 0.3 0.6 1.2 1.8 2.4 Km

FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT H



### 3 LOCATION OF THE BORROW PIT

(Refer to Figure 3 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
A	Vhembe	Mawambe's Location 281 - MT	Government of the Republic of South Africa	MW3 700mm	Levuvhu River

### 4 EXTENT OF OPERATIONS

*Refer to table 2 for the following information:*

- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
A	23° 00' 59.1" S 30° 38' 00.4" E 23° 01' 00.8" S 30° 38' 01.7" E 23° 01' 02.2" S 30° 38' 01.1" E 23° 01' 00.6" S 30° 37' 58.5" E	Natural Sand Borrow Pit through Strip Excavation	Yes

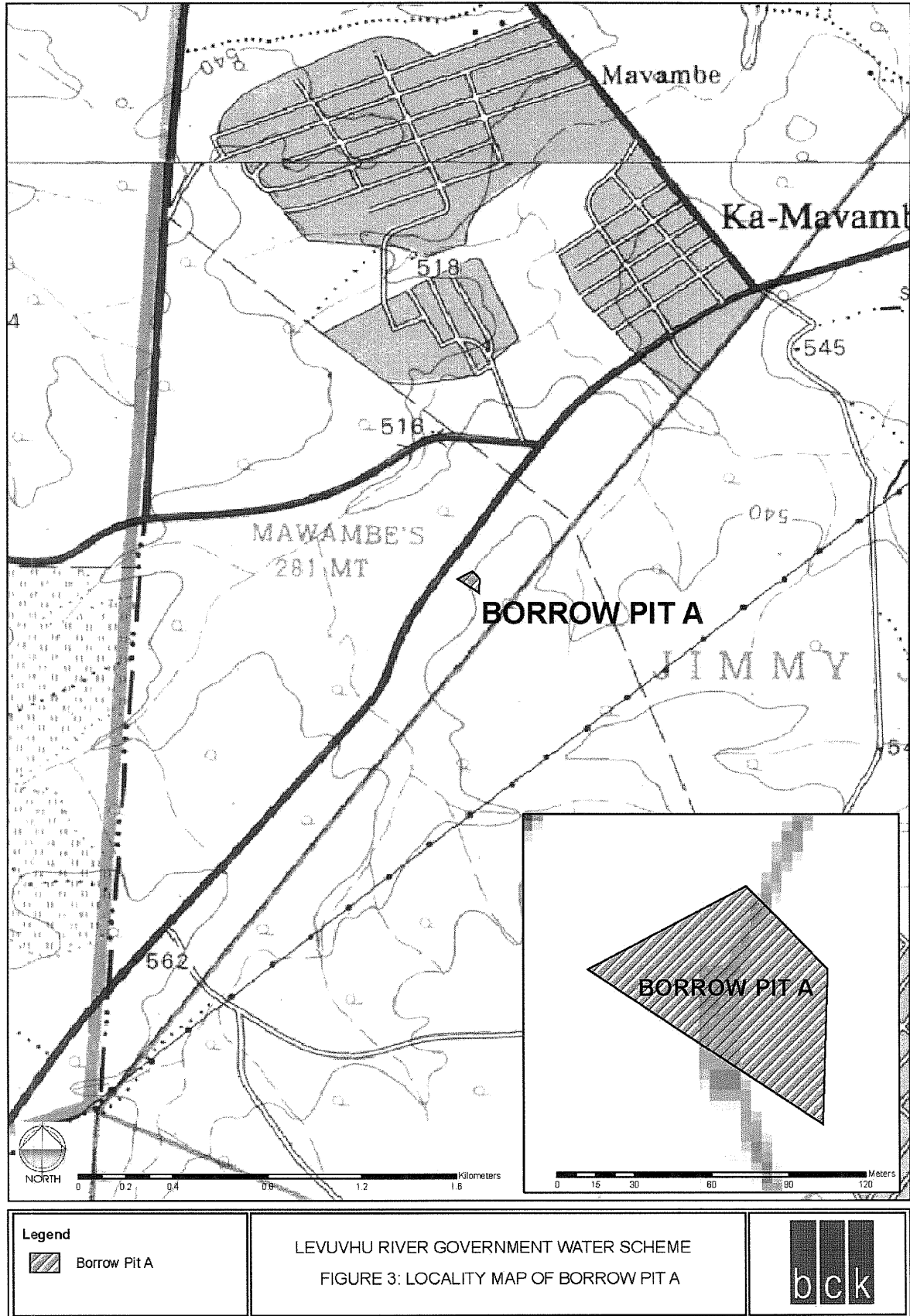


Figure 3: Locality Map of the Borrow Pit A

### 3 LOCATION OF THE BORROW PIT

(Refer to

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
B	Vhembe	Straddles LOCATIE VAN DE KNOPNEUZEN 230 – LT and MOLENJE 204 -LT	Republic of South Africa	MW3 700mm	Levuvhu River

### 4 EXTENT OF OPERATIONS

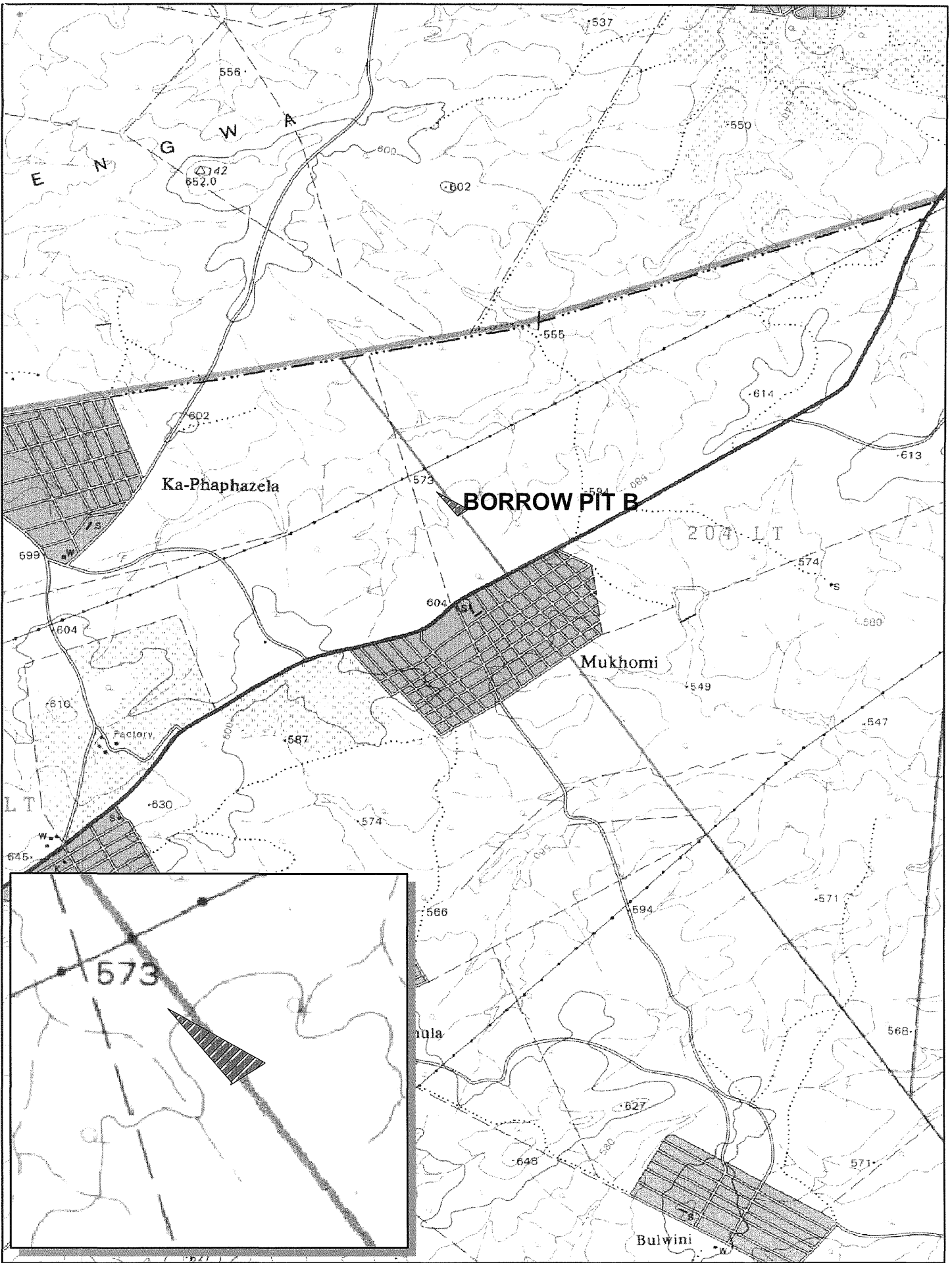
*Refer to table 2 for the following information:*

- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

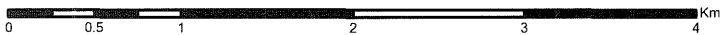
**Table 2: New or existing borrow pit**

4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
B	23° 03' 48.3" S 30° 34' 37.3" E 23° 03' 46.6" S 30° 34' 40.4" E 23° 03' 41.6" S 30° 34' 31.1" E 23° 03' 48.3" S 30° 34' 37.3" E	Natural Sand Borrow Pit through Strip Excavation	Yes

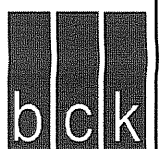




**LEVUVHU RIVER GOVERNMENT WATER SCHEME**



**FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT B**



### 3 LOCATION OF THE BORROW PIT

(Refer to

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
C	Vhembe	Locatie van de Knopneuzen 230-LT	Republic of South Africa	MW3 700mm	Levuvhu River

### 4 EXTENT OF OPERATIONS

*Refer to table 2 for the following information:*

- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
C	23° 06' 08.5" S 30° 31' 50.6" E 23° 06' 04.6" S 30° 31' 48.1" E	Natural Sand Borrow Pit through Strip Excavation	Yes

	23° 06' 07.7" S 30° 31' 46.0" E		
	23° 06' 12.5" S 30° 31' 47.3" E		

**Figure 1: Project Locality Map**

**Figure 2: Extent of the proposed Levuvhu River Government Project**

**Figure 3: Locality Map of the Borrow Pit**

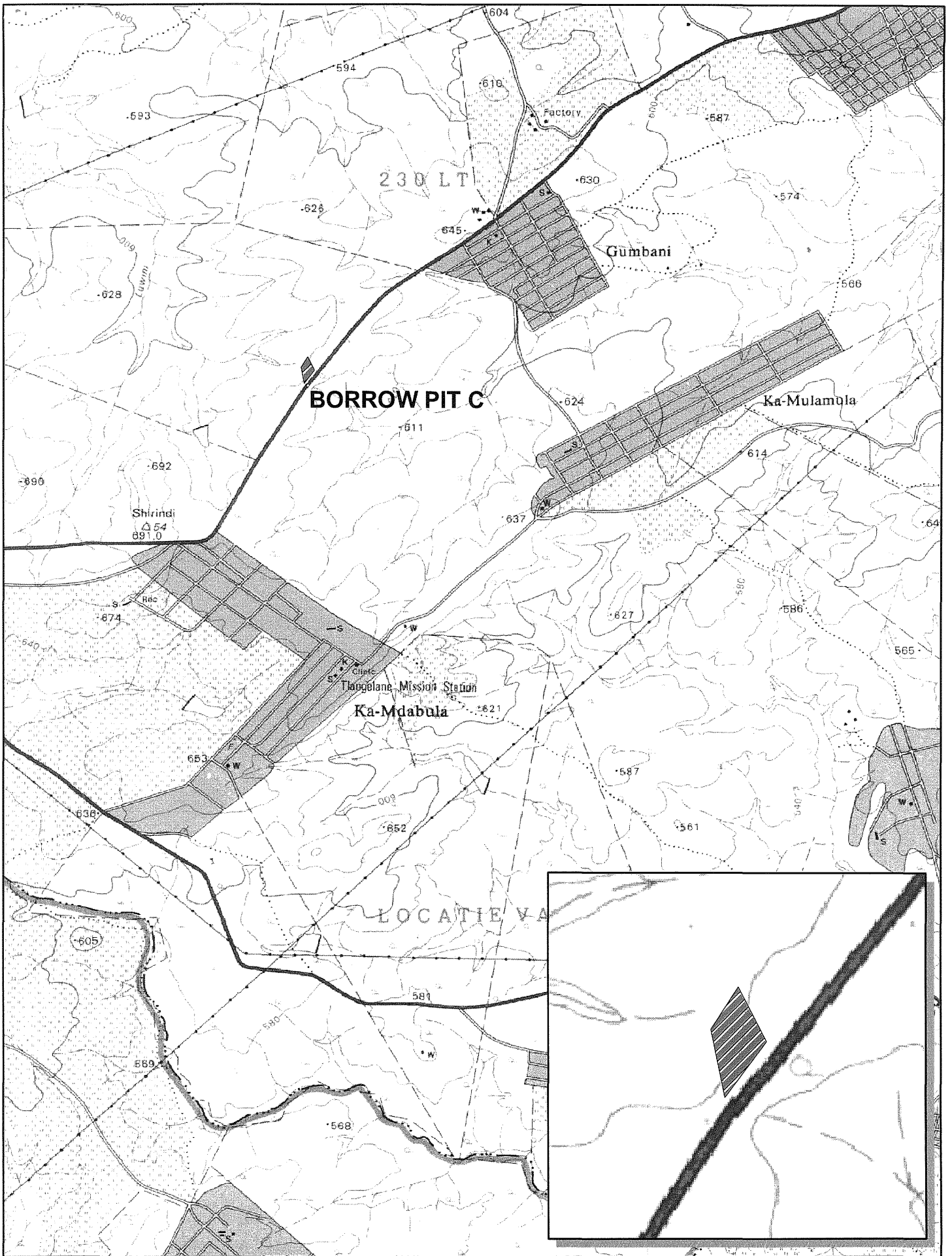
**Questions 4.4 to 4.9 to be answered in table 3:**

- 4.5 Estimated surface area of borrow pit / quarry:  
 4.6 Estimated average depth of borrow pit / quarry:  
 4.7 Average geological horizons of the test holes:  
     (a) 0,0 m to 0,3 m:  
     (b) 0,3 m to 1,6 m:  
 4.8 Mining method: Blasting operation / Dig with implements\*  
 4.9 Estimated rate of mining:  
 4.10 Estimated duration of quarry:

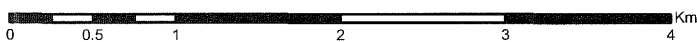
**Table 3: Volume, dimension and duration**

Borrow Pit Nr	4.5 Surface Area	4.6 Average Depth	4.7 Test hole horizon depth	4.8 Mining method	4.9 Rate of Mining	4.10 Duration of quarry
C	1.6187 ha	1.4 – 2.0m	0.3m	Backactor or a dozer/loader configuration	Not available	3 years

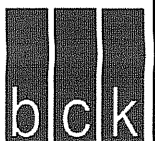
**4.11 The placing of topsoil and overburden are shown on the Borrow Pit Development Plan (Figure 7: Borrow Pit Development Plan).**



**LEVUVHU RIVER GOVERNMENT WATER SCHEME**



**FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT C**



### 3 LOCATION OF THE BORROW PIT

(Refer to

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
D	Vhembe	Schuynshoogte 29-LT, Portion 1	National Government of the Republic of South Africa	MW3 700mm	Levuvhu River

### 4 EXTENT OF OPERATIONS

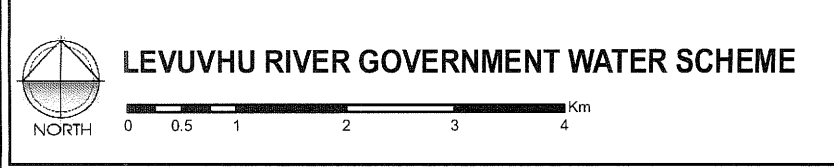
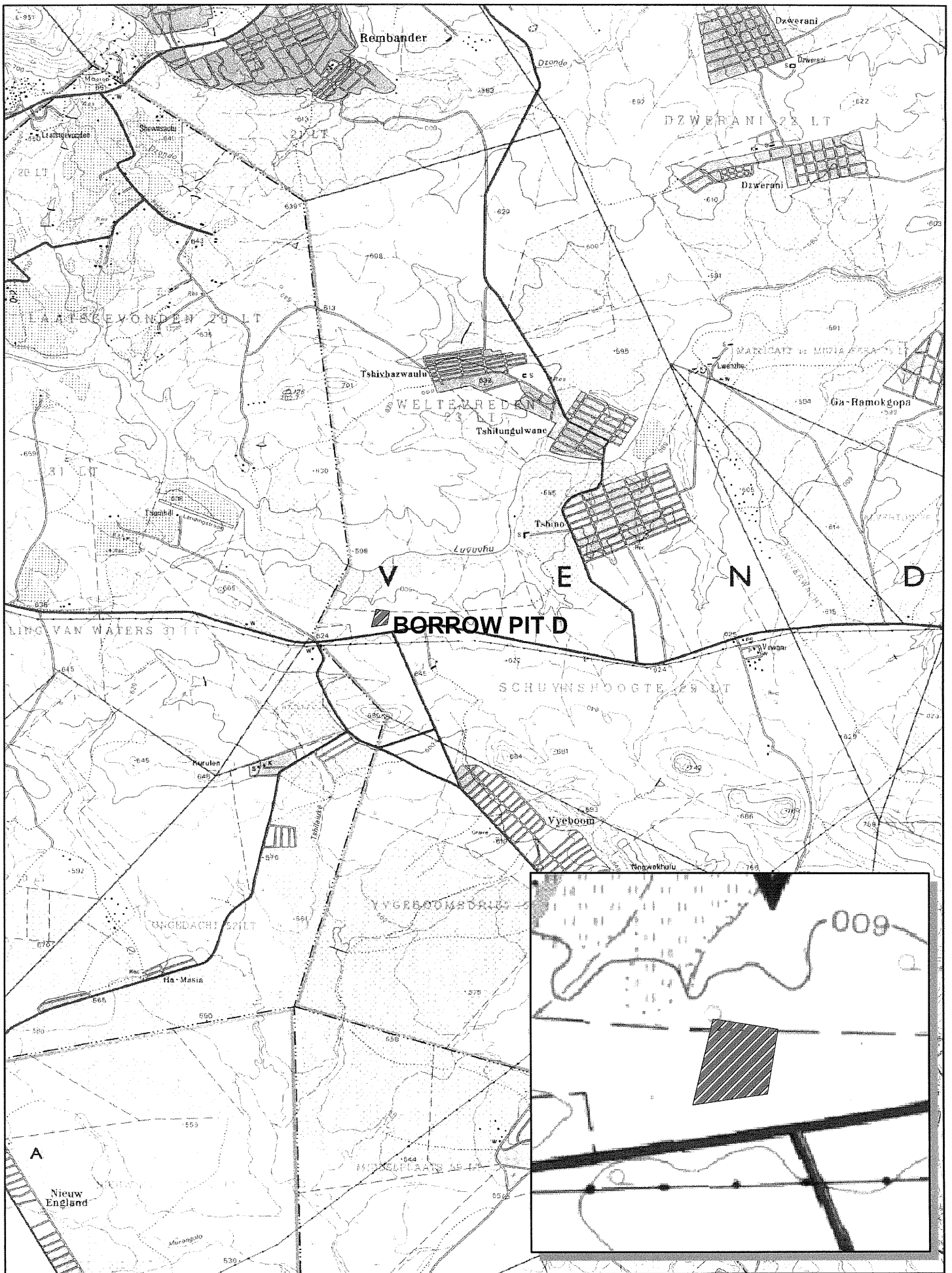
*Refer to table 2 for the following information:*

- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

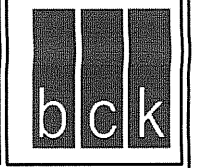
**Table 2: New or existing borrow pit**

4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
D	23° 07' 37.7" S 30° 22' 28.5" E 23° 07' 31.1" S 30° 22' 29.3" E 23° 07' 30.7" S 30° 22' 23.0" E 23° 07' 38.6" S 30° 22' 21.6" E	Natural Sand Borrow Pit through Strip Excavation	Yes





**FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT D**



### 3 LOCATION OF THE BORROW PIT

Figure 1 for the Locality of the Borrow Pit)

*Refer to Table 1 for the following information concerning the Borrow pit*

- 3.1 Magisterial District
- 3.2 Name and number of farm
- 3.3 Name of landowner
- 3.4 Pipe line reference
- 3.5 Name of river catchment
- 3.6 Location and infrastructure - indicated on the attached locality and structure diagrams.

**Table 1: Farm name and number**

Borrow Pit	3.1 Magisterial District	3.2 Name and Number of Farm	3.3 Landowner	3.4 Pipe line Reference	3.5 River Catchment
E	Vhembe	Verzameling van Waters 31-LT, Portion 0, 24 and 13	Havinga Carel Stephanus Barkhuizen, Hendrik Stefanus and Marius Schrenk Familietrust	MW3 700mm	Levuvhu River

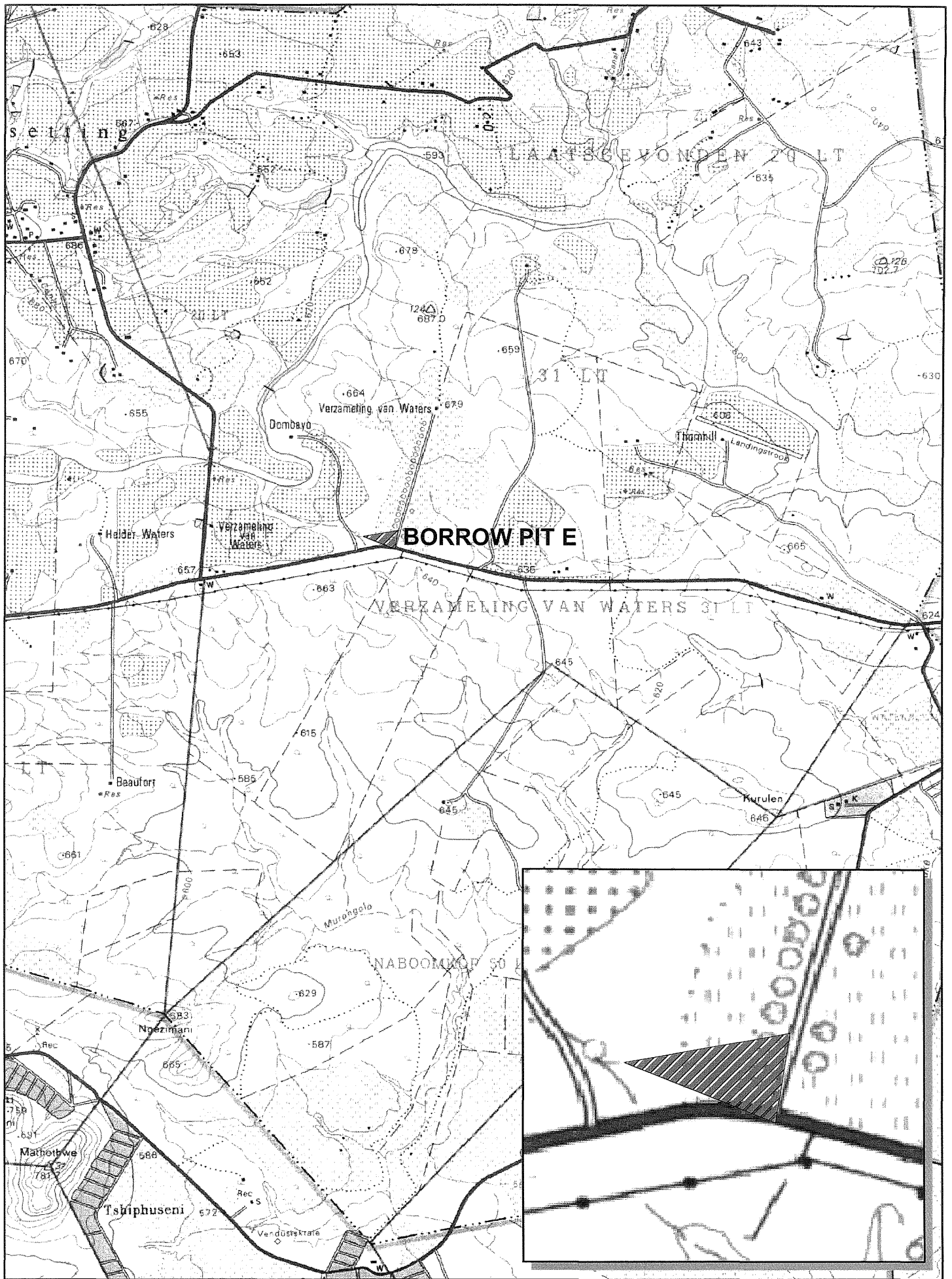
### 4 EXTENT OF OPERATIONS

*Refer to table 2 for the following information:*

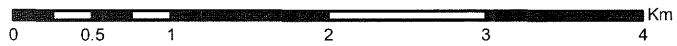
- 4.1 Borrow Pit Number
- 4.2 GPS Coordinates
- 4.3 Borrow Pit / Quarry type
- 4.4 New Borrow Pit? Yes/No\*

**Table 2: New or existing borrow pit**

4.1 Borrow Pit	4.2 Coordinates	4.3 Borrow Pit / Quarry Type	4.4 New Borrow Pit (Yes/No)
E	23° 07' 18.1" S 30° 19' 00.5" E 23° 07' 16.8" S 30° 19' 11.8" E 23° 07' 22.0" S 30° 19' 10.8" E 23° 07' 21.9" S 30° 19' 00.9" E	Natural Sand Borrow Pit through Strip Excavation	Yes



**LEVUVHU RIVER GOVERNMENT WATER SCHEME**



**FIGURE 3:  
LOCALITY MAP OF  
BORROW PIT E**

