

LEFROY GOLDFIELDS  
MINERAL RESOURCES TASMANIA

*LEFROY SHAFT SAFETY PROGRAM*

HERITAGE ASSESSMENT

FEBRUARY 2006



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A.C.N 098 226 361

# LEFROY SHAFT SAFETY PROGRAM

## HERITAGE ASSESSMENT

FEBRUARY 2006

### PROJECT TEAM

Aaron Everett  
Dr Kerry Herman

## **Authors**

This report was prepared by Aaron Everett and Dr Kerry Herman of SFM Environmental Solutions Pty Ltd.

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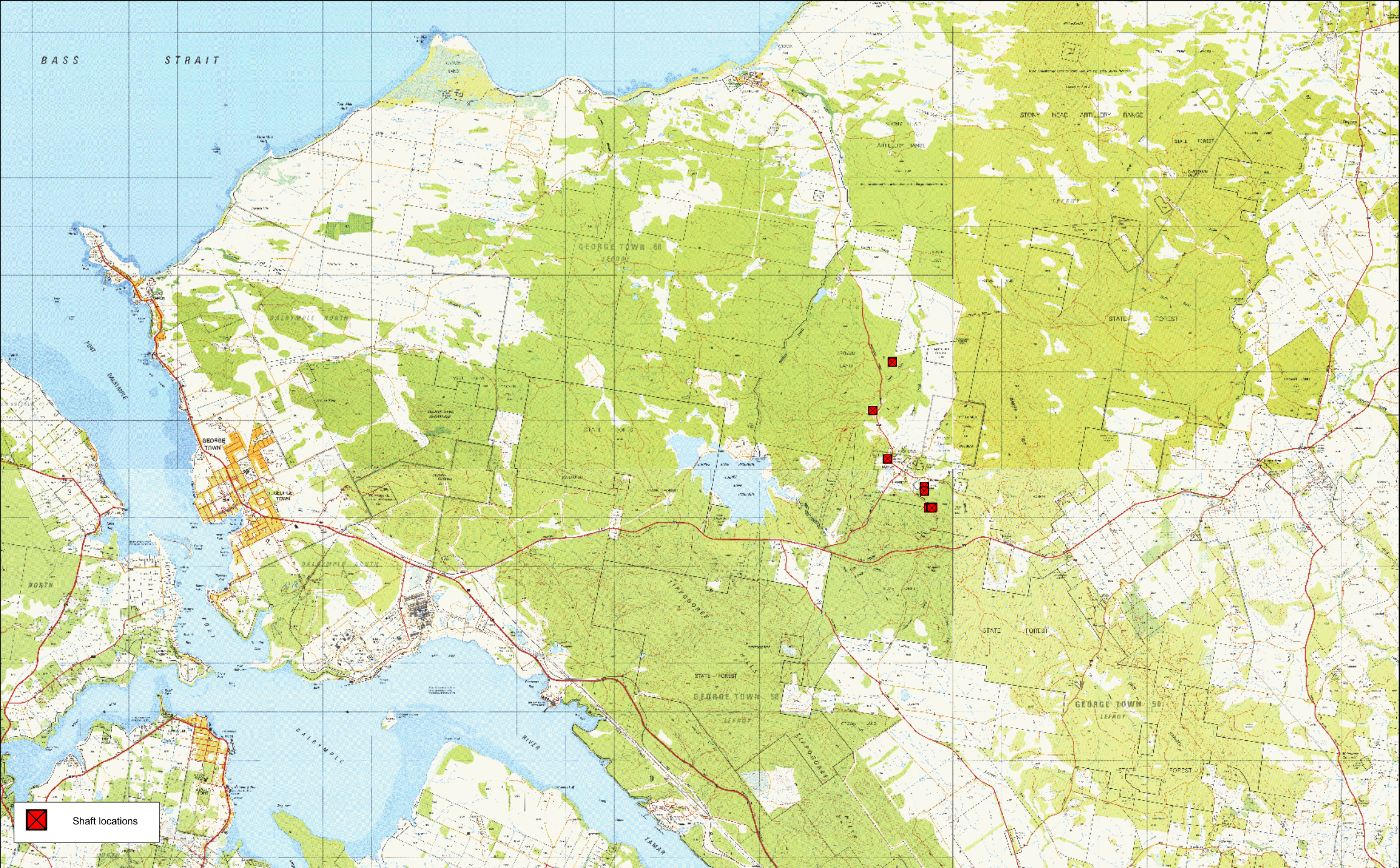
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# 1 INTRODUCTION

## 1.1 BACKGROUND

The Lefroy Goldfield is located 40km north of Launceston and 15km east of Georgetown. The goldfield was discovered in 1869 with mining activities in the area continuing up until the turn of the century. The field contains approximately 30 auriferous reefs, which has made Lefroy the largest and most historically complex of Tasmania's north-east goldfields. The main method of mining employed across the Lefroy fields was to sink shafts into the reefs. Deep crosscut exploration was employed towards the end of the gold rush, producing little, if any, gold. The *Deep Sinking Encouragement Act 1899* was passed to encourage deep exploration of goldmines in the northeast. This resulted in much deeper mine shafts, and prolonged the life of the Lefroy goldfields.

Mineral Resources Tasmania (MRT) is responsible for the environmental appraisal, monitoring and management of mining heritage and land access issues in Tasmania. An aspect of this is public safety. As a part of the public safety programme, funded by the Rehabilitation of Abandoned Mining Lands Trust Fund, MRT is proposing to fit pre-cast concrete panels onto abandoned mine shafts in and around the township of Lefroy. The location of the Lefroy Goldfields, and mine shafts to be rehabilitated, is presented in Figure 1.1.



 Shaft locations

**Lefroy Goldfields Context**  
**MRT Heritage Assessment**





## Lefroy Goldfields MRT Heritage Assessment



## **1.2 REPORT AIMS, SCOPE & LIMITATIONS**

### **1.2.1 Scope**

The report has been prepared for Mineral Resources Tasmania (MRT) by SFM Environmental Solutions. An assessment of the heritage value of the Lefroy Goldfield was undertaken.

## **2 SITE DESCRIPTION**

The subject site area (Figure 1.1) is located in north eastern Tasmania. The mine shafts to be considered for rehabilitation are located around the township of Lefroy.

The Lefroy goldfields were established in the late 1860's when a number of reefs were discovered in the area. Shaft mining was the main method of ore extract, though other methods were trialled. Mining ceased in the area in the early 1900's.

The area is dominated by open coastal *Eucalyptus amygdalina* forest, typical in this region of Tasmania. This forest community supports an dense heathy – shrubby understorey, dominated by a number of common plant species.

## **3 HERITAGE ASSESSMENT.**

### **3.1 METHODS**

A map of the area of concern was provided to SFM from MRT. This showed the location of the shafts of concern.

#### **3.1.1 Field Investigations**

Field surveys to assess the heritage values of the shaft sites in the Lefroy goldfields were undertaken on the 16<sup>th</sup> – 19<sup>th</sup> December, 2005. Records were taken (and locations flagged) of:

- Mine shafts;
- Presence or absence of spoil heaps;
- Mining equipment;
- Machinery bases; and
- Water traces.

The mine sites assessed and locations are presented in table 1.1

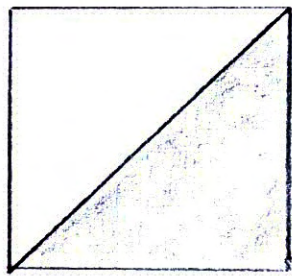
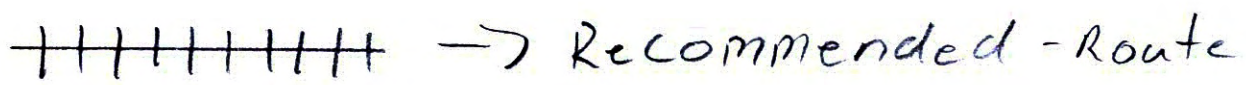
**Table 1.1. Name and location of assessed mine shafts.**

<b>LINE NAME</b>	<b>NORTHING</b>	<b>EASTING</b>
<b>Brisbane</b>		
<b>Bris 1</b>	5449614	499407
<b>Bris 2</b>	5449525	499405
<b>New Native Youth</b>		
<b>Natv 1</b>	5450189	498639
<b>Natv 2</b>	5450196	498650
<b>Perpetual</b>		
<b>Perp 1</b>	5452198	498745
<b>Perp 2</b>	5452188	498744
<b>Pinafore</b>		
<b>Pinf 1</b>	5451188	498343
<b>Windermere</b>		
<b>Wind 1</b>	5449180	499484
<b>Wind 2</b>	5449201	499536
<b>Wind 3</b>	5449201	499577
<b>Wind 4</b>	5449180	499560

These field assessments have enabled the development of site maps, and recommendations for access during rehabilitation of shafts. Recommended access routes have been flagged onsite with yellow tape.

Assessment sheets from SFM's Archaeological database and maps of shafts sites comprise the remains of this report. Also attached are photographs of the site.

# LEGEND



→ Shaft -

# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 16-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ Bribane - 1  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Mine Rehab

2: MRT - Capping

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are spoil dumps around main shaft area on a fairly flat  
dry open woodland (app) 10 meters of from Volunteer Hill Road.

ESTIMATED AREA COVERED (Give area in hectares)

30 meters approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

15 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 499407    Easting 5449614

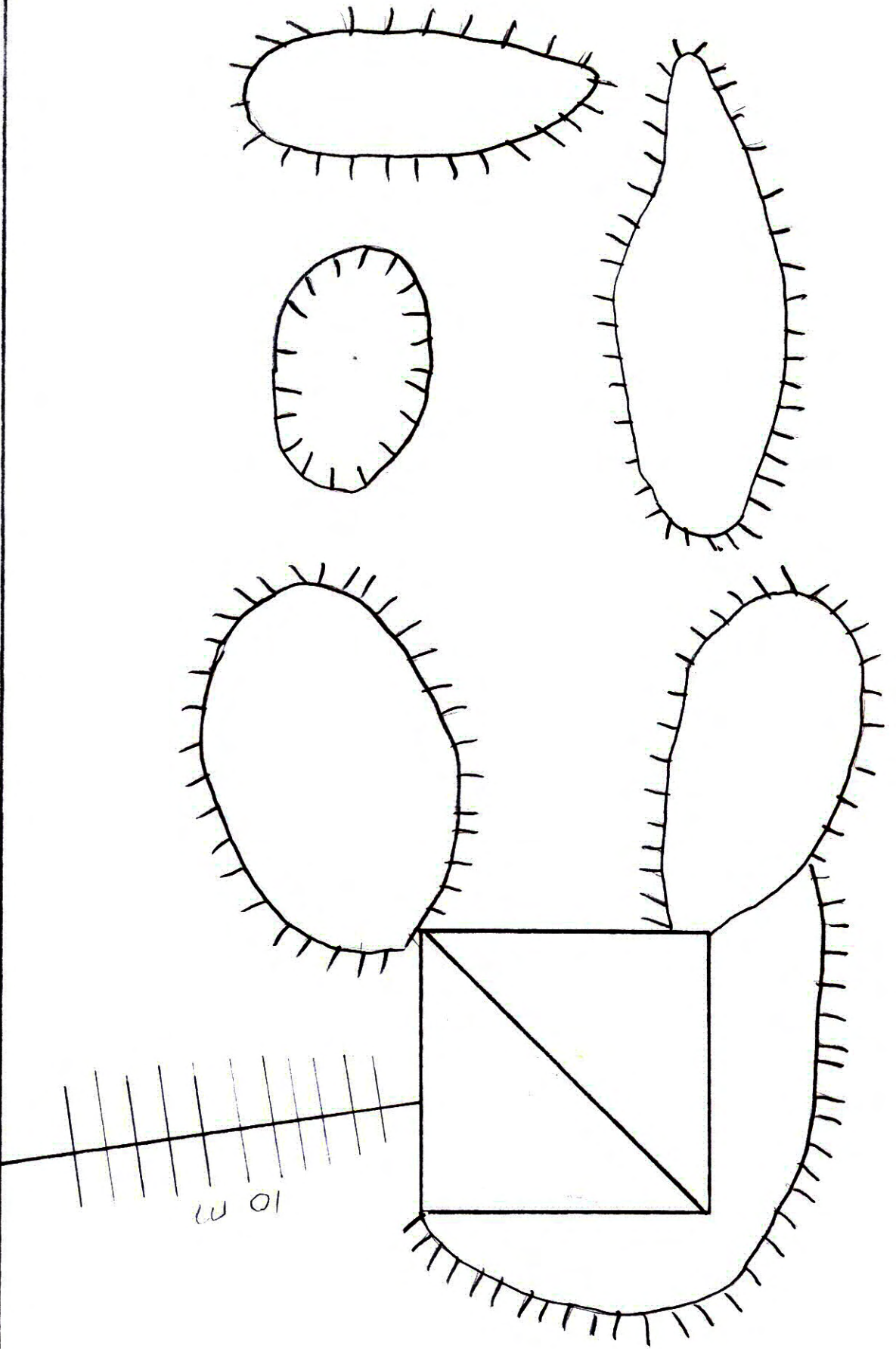
photo:



ALL ABORIGINAL SITES ARE PROTECTED UNDER THE ABORIGINAL RELICS ACT 1975.

### EVALUATION AND RECOMMENDATIONS

Follow recommended route which will be on the following map



Volunteer Hill Road

# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 16-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ Bribane - 2  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2:

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are no heritage on this shaft  
app 20 meters from Volunteer Hill Road

ESTIMATED AREA COVERED (Give area in hectares)

50 meters approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

10 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility very poor.

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 499405    Easting 5449614

photo:

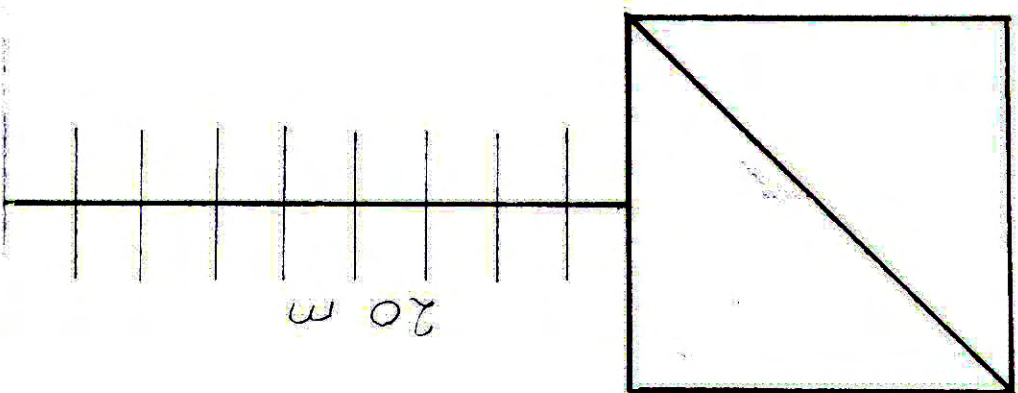


ALL ABORIGINAL SITES ARE PROTECTED UNDER THE ABORIGINAL RELICS ACT 1975.

### EVALUATION AND RECOMMENDATIONS

Follow recommended route on following map

Bus 2



Volunteer Hill Road

# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 19-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ new native youth  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2: MRT - Fencing

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are two shafts 5 metres apart in this area  
on a side of a hill in dry to scrubby open woodland, no real heritage value here.

ESTIMATED AREA COVERED (Give area in hectares)

20 meters approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

10 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate to poor

RESULTS

2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)  
Grid references should be provided here.

MAIN SHAFT LOCATION

Northing 498639      Easting 5450189  
Northing 498650      Easting 5450196

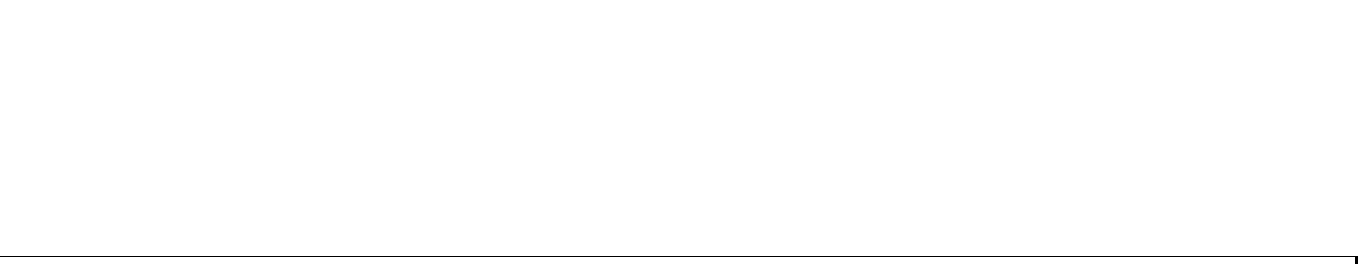
photo:



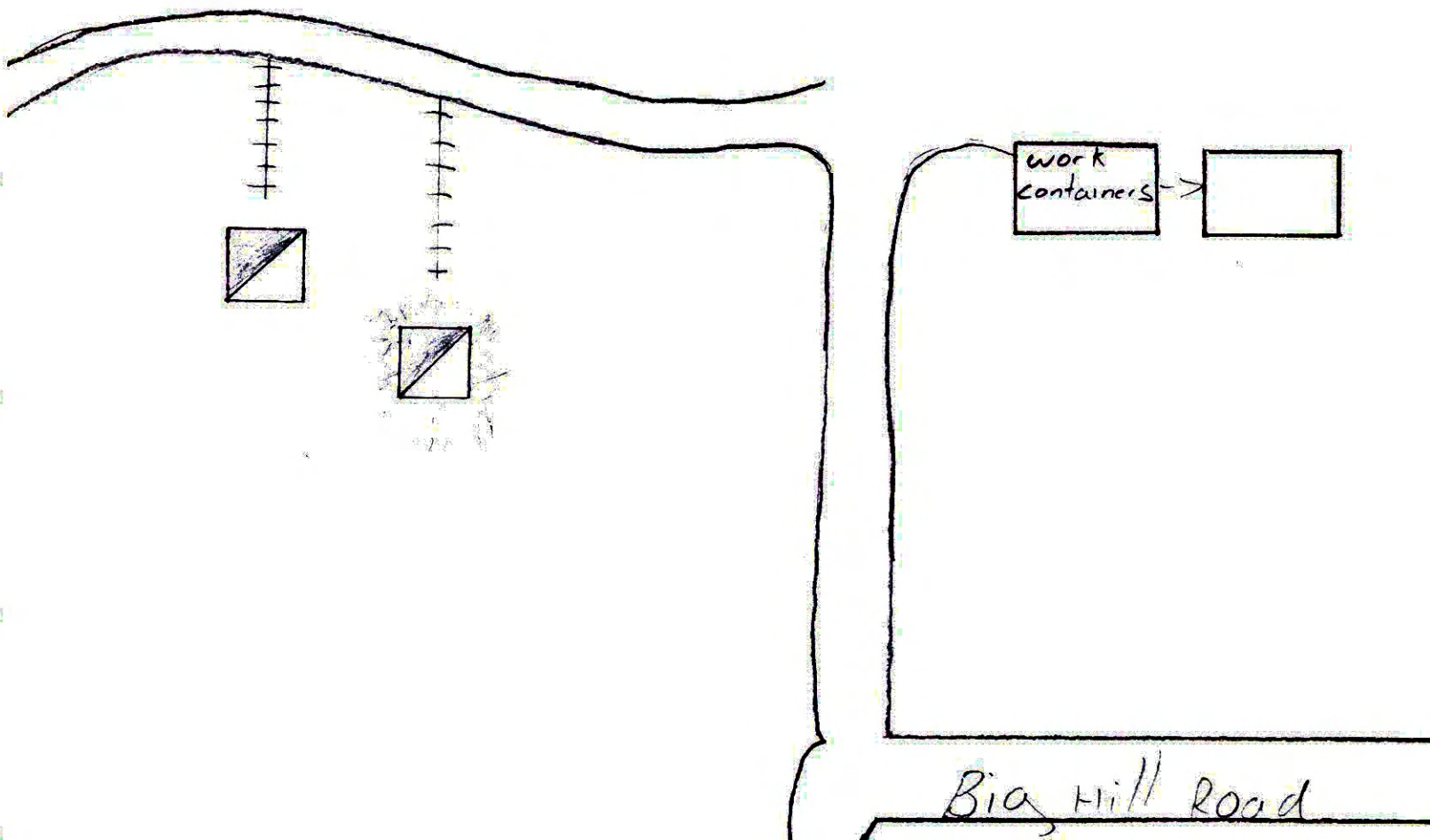
ALL ABORIGINAL SITES ARE PROTECTED UNDER THE ABORIGINAL RELICS ACT 1975.

EVALUATION AND RECOMMENDATIONS

follow recommended route on following map



NATV 1 & 2



# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 16-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ perpetual -1 - 2  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2:

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are two shafts within 5 metres apart in this area  
in a dry to scrubby open woodland no real heritage value here.

ESTIMATED AREA COVERED (Give area in hectares)

50 meters approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

25 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 498745      Easting 5452198

Northing 498744      Easting 5452188

photo:

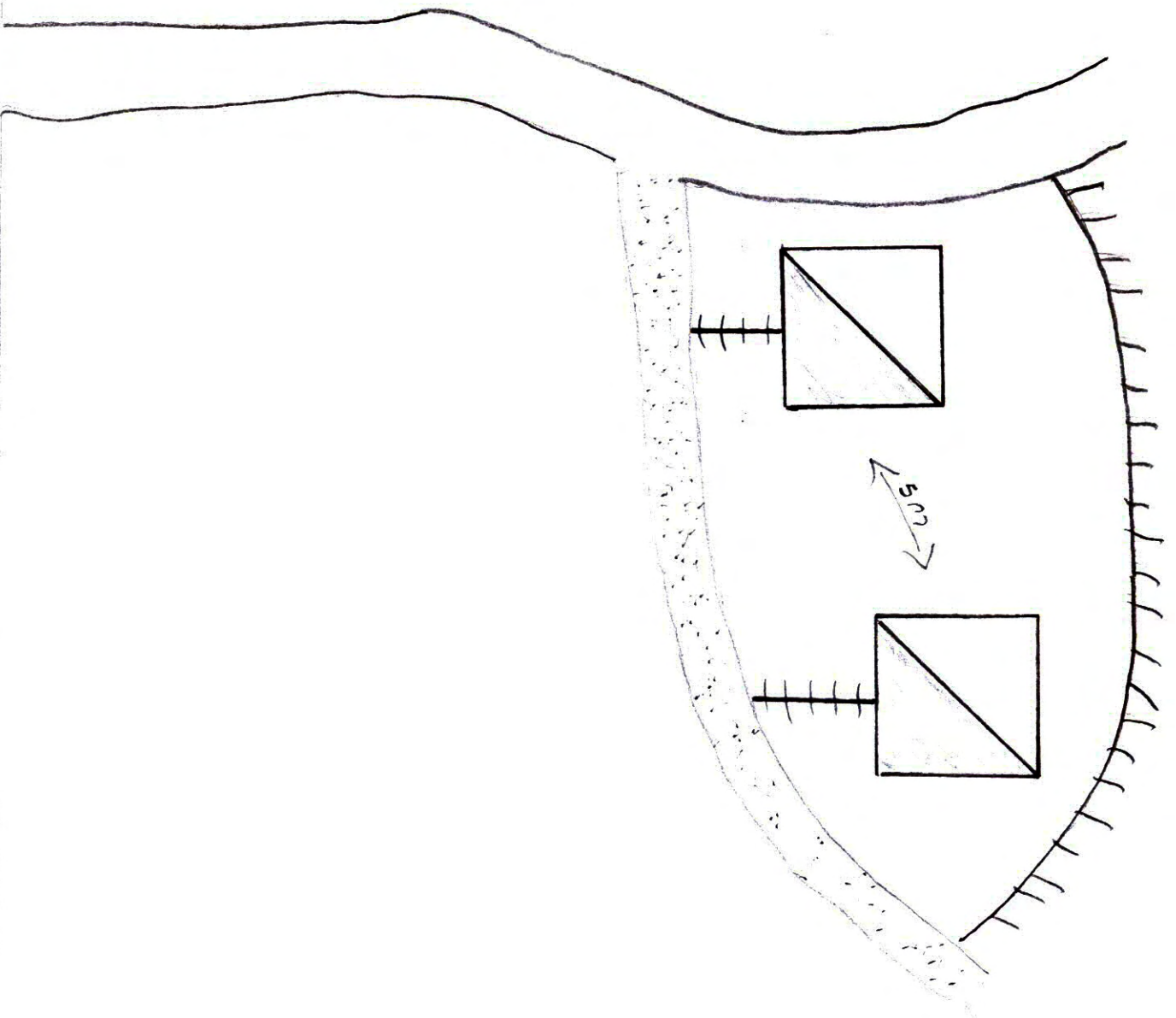


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### EVALUATION AND RECOMMENDATIONS

follow recommended route on following map

Page 1-2



Big Hill Road

# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 16-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ pinafore - 1  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Fencing

2: MRT - Capping

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are two large spoil dumps around main shaft  
area on a fairly flat to dry scrubby woodland

ESTIMATED AREA COVERED (Give area in hectares)

200 meters approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

25 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

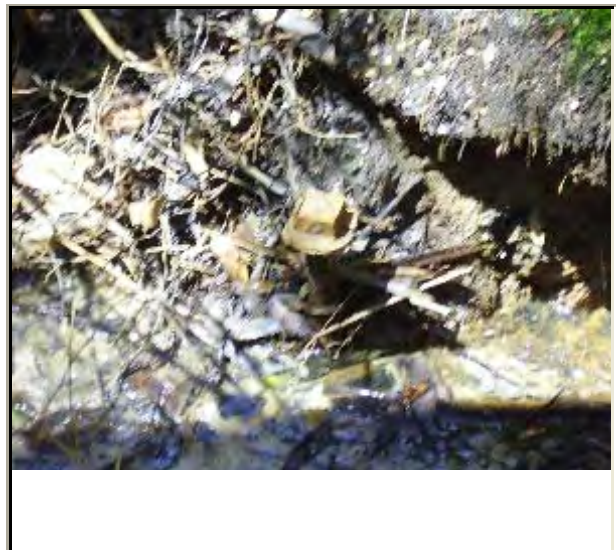
(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 498343    Easting 5451188

photo:



ALL ABORIGINAL SITES ARE PROTECTED UNDER THE ABORIGINAL RELICS ACT 1975.

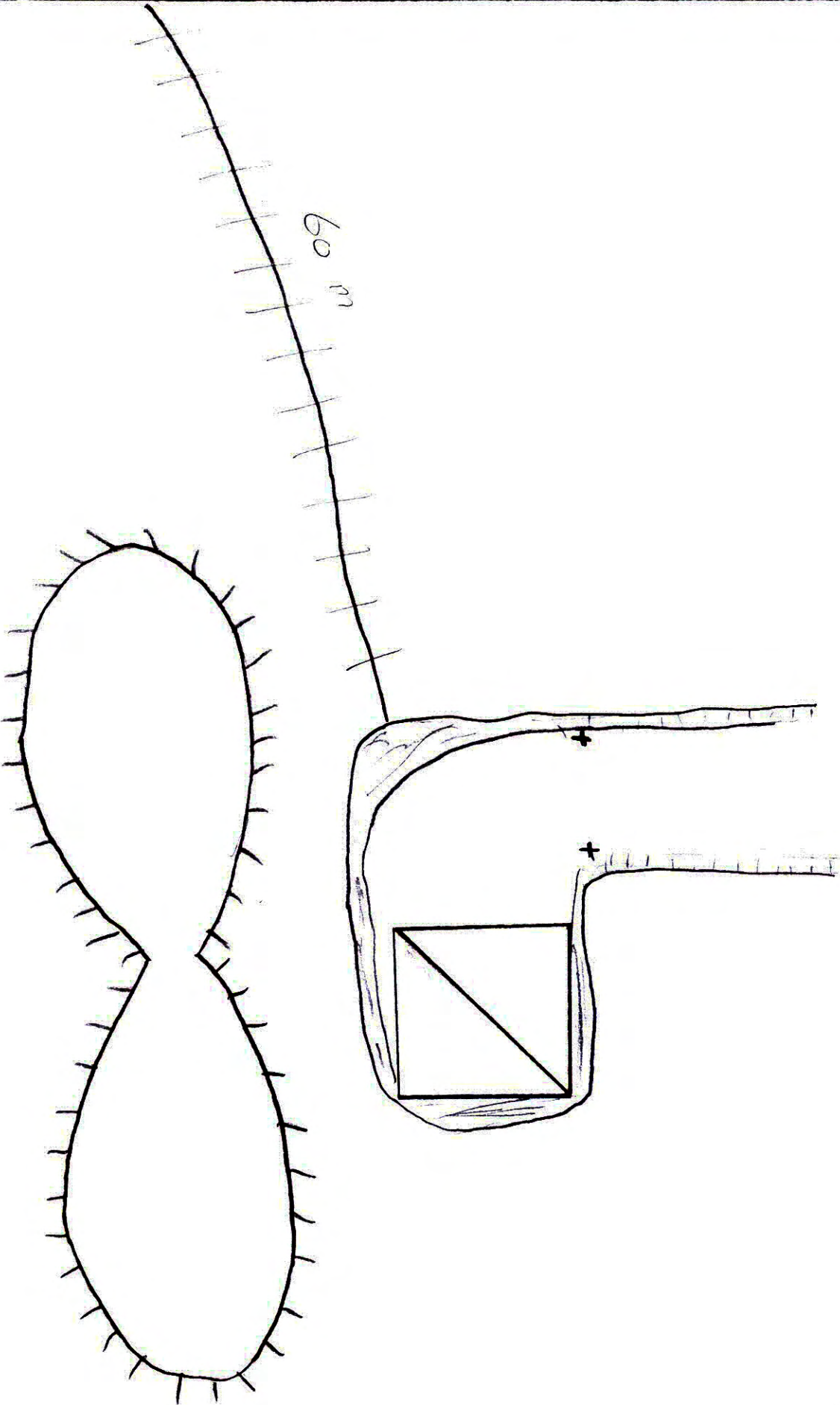
### EVALUATION AND RECOMMENDATIONS

Follow recommended route on following map

Dirt Track

Big Hill Road

100 m



# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 19-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ windermere - 1  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Fencing

2: MRT - Capping

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are no heritage values on the main shaft here but there is a walk in entrance app 10 metres below with a spoil dump on the right hand side and drainage lines on the bottom slope of entrance.  
Dry open woodland approx 200 meters from volunteer hill road

ESTIMATED AREA COVERED (Give area in hectares)

1 k or 0.3 hec approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

30 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 499485      Easting 5449205

Northing 499484      Easting 5449180

photo:

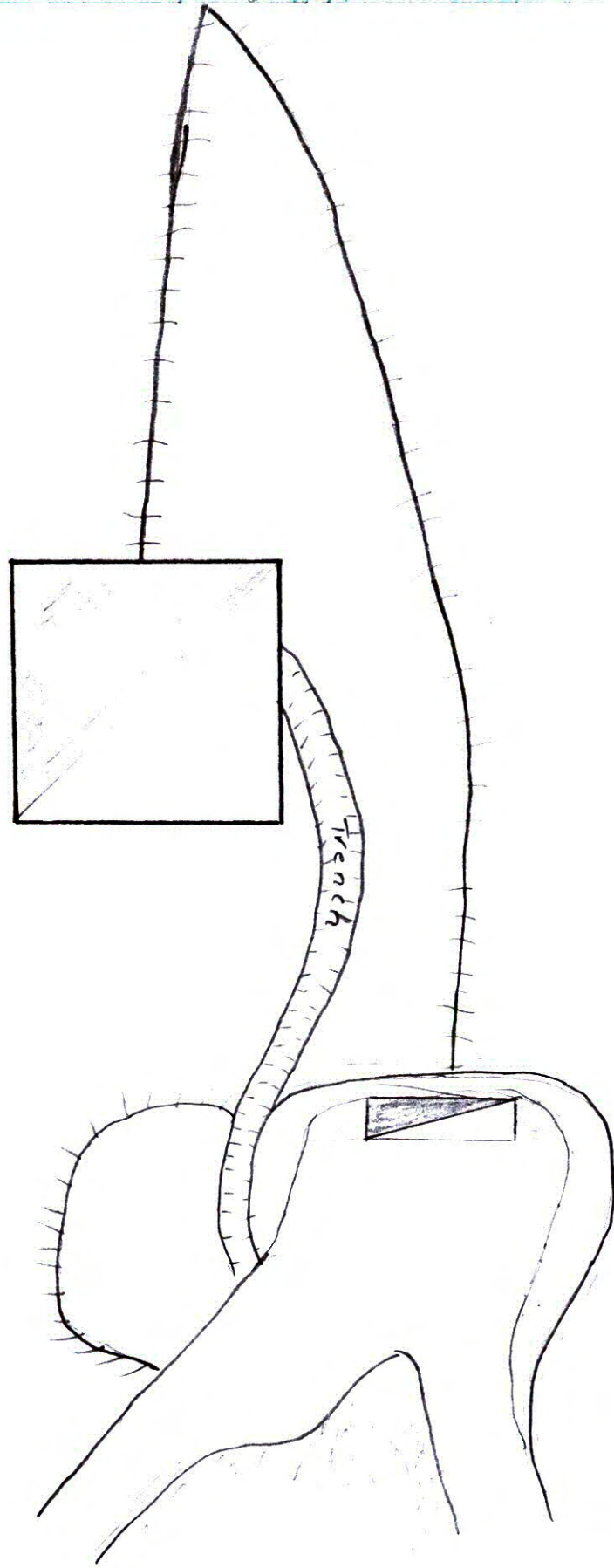


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### EVALUATION AND RECOMMENDATIONS

follow recommended route provided in following map

Wind 1



# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 19-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ windermere - 2  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2:

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There is one large spoil dump around main shaft  
the area is on a slight slope in dry open woodland

ESTIMATED AREA COVERED (Give area in hectares)

1 k or 0.3 hec approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

10 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate to poor

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 499536    Easting 5449201

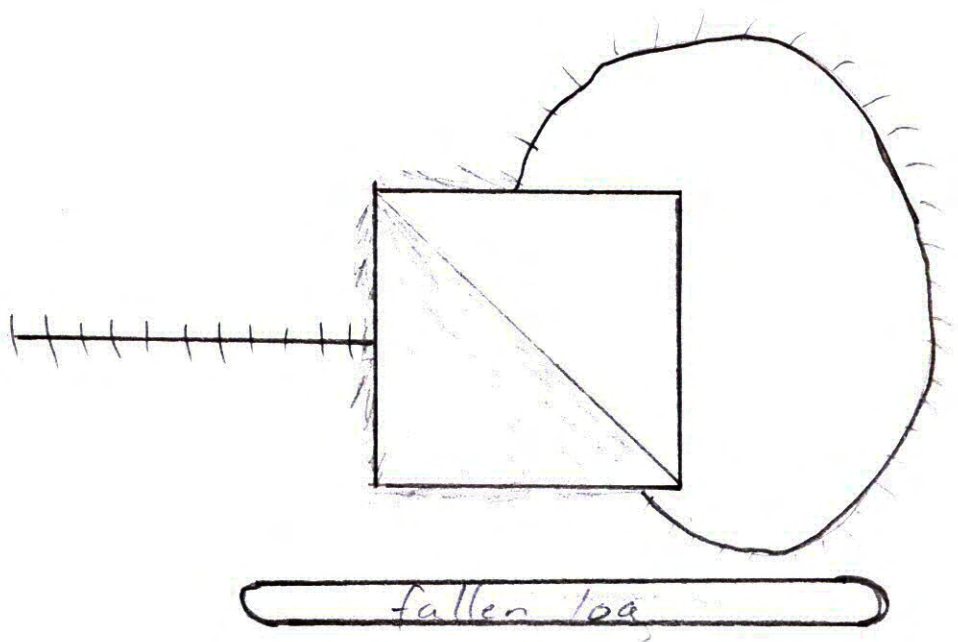
photo:



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### EVALUATION AND RECOMMENDATIONS

follow recommended route on following map



# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 19-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ windermere - 3  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2:

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There is one large spoil dump around main shaft  
the area is on a slight slope in a dry open woodland

ESTIMATED AREA COVERED (Give area in hectares)

1 k or 0.3 hec approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

10 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

RESULTS

2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)  
Grid references should be provided here.

MAIN SHAFT LOCATION

Northing 499577    Easting 5449201

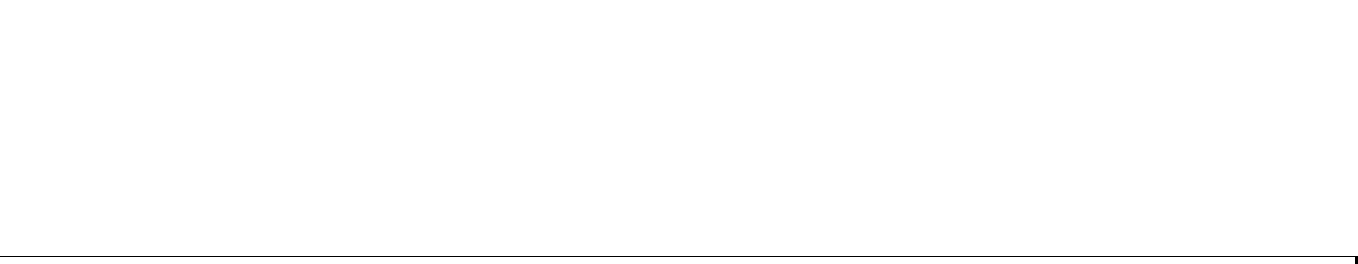
photo:



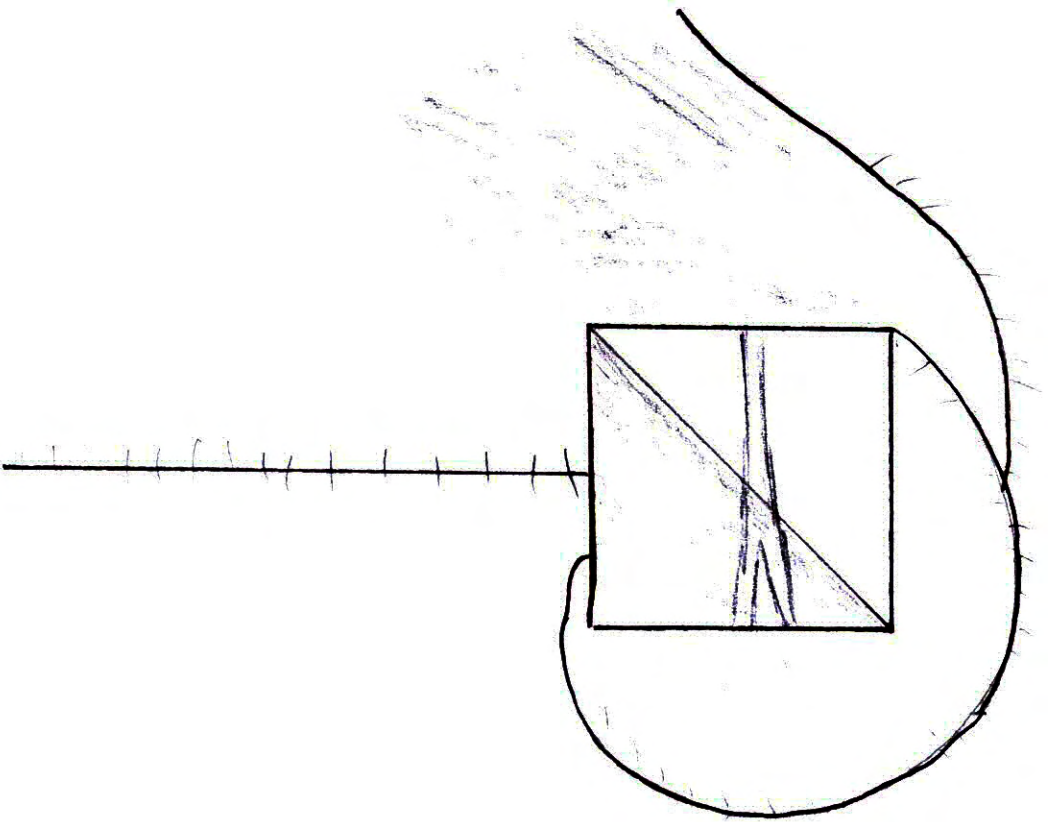
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EVALUATION AND RECOMMENDATIONS

follow recommended route on following map



Wind 3



Volunteer Hill Road

# SFM Environmental Solutions Pty Ltd

## ARCHAEOLOGICAL SURVEY REPORT

A 1:25 000 MAP SHOWING THE LOCATION OF THE SURVEY, WHERE YOU ACTUALLY SURVEYED AND ANY SITES LOCATED SHOULD BE APPENDED

REPORT BY AARON EVERETT Date 19-Dec-05

Address SANDY BAY TASMANIA 7006 P.O BOX 360

SURVEY LOCATION (Please attach a 1: 25 000 map)

Map (1: 25 000) LEFROY District/Company: MINERAL RESOURCES TASMANIA

COUPE NAME/NUMBER/ windermere - 4  
NAME OF ROAD

FPP\_No:   
if known

POTENTIAL ZONE  
(if State forest)

State reason for zoning

Operation type/(s)

1: MRT - Capping

2: MRT - Fencing

3:

SURVEY DESCRIPTION (note whether road line, coupe etc)

There are spoils on the lower side of the shaft. This shaft has water in it due to a blockage the area. Iis on a slight slope in a dry open woodland

ESTIMATED AREA COVERED (Give area in hectares)

1 k or 0.3 hec approx

ESTIMATED TIME SPENT ON ACTUAL SURVEY (in minutes)

10 min approx

### RESULTS

#### 1. ENVIRONMENT AND VISIBILITY CONDITIONS ENCOUNTERED

Visibility moderate

## RESULTS

### 2. ARCHAEOLOGICAL FINDINGS

(NOTE: if you find a site, a site recording form should be completed and submitted)

Grid references should be provided here.

#### MAIN SHAFT LOCATION

Northing 499560    Easting 5449180

photo:



ALL ABORIGINAL SITES ARE PROTECTED UNDER THE ABORIGINAL RELICS ACT 1975.

### EVALUATION AND RECOMMENDATIONS

follow recommended route on following map

Wind 4

