ASSESSMENT OF HERITAGE VALUE

Lime Kiln ruins
Bower

DESCRIPTION OF PLACE

A group of three brick-lined kilns built in the 1920s by the Wilksch family at Bower to produce lime by burning limestone. The stone was quarried on the property to the east of the kilns. Lime was sent by rail from Bower as far as Broken Hill during the 1920s and 1930s. The historic remains are in need of stabilisation as bricks have been removed from the site over the years and the walls have deteriorated and collapsed.

STATEMENT OF HERITAGE VALUE

The kiln site for burning limestone to make lime was established in the 1920s at Bower and has heritage value in being one of the few remaining lime kiln sites in South Australia. The kilns provided lime to a wide area during the 1920s and 1930s. The remains of the three kilns are brick-lined and are in a ruined state.

RELEVANT CRITERIA

Section 16, Heritage Act 1993

(a) it demonstrates important aspects of the evolution or pattern of the State’s history namely the production of lime which was an essential ingredient for mortar used in stone and brick construction, the predominant building method in South Australia from the mid-nineteenth century

Lime was one of the earliest chemicals used by man and the processing of lime one of the oldest industries. There is evidence of lime-burning and the use of lime mortar in Mesopotamia by 2500 BC.

During the nineteenth century, small lime kilns were established in South Australia in a number of areas where limestone, dolomite or a large supply of sea shells were available. Builders often manufactured their own lime from locally available sources using cleared timber as a fuel.

The kilns were mostly used to reduce local limestone (a sedimentary rock of calcite or calcium carbonate, \(CaCO_3\)) into powdered common lime (calcium oxide, \(CaO\)) which is used in the building industry for mortar, lime plaster, whitewash and cement. It is also used in agriculture and as a metallurgical flux in the smelting and refining of aluminium, copper and zinc. One ton of stones produced approximately 21 bushels (84 pecks) or seven bags of lime.

THE PROCESS OF CALCINATION

Lime was produced from the limestone in a slow burning kiln. The process releases water and carbon dioxide from the limestone leaving a lump of powdery, greyish-white quicklime.
(sometimes referred to as lump lime). The operation involved placing logs of wood in the base of the kiln and layering limestone and wood alternatively until the kiln was full. The contents were then set aight at the base and would burn for one to two days until the kiln was ready to be emptied of the remaining lime by raking it through the draw-off hearth.

At Bower, a constant production of lime could be maintained with three kilns and five men working. The fresh lime was then bagged and taken to the railway for transport. Lime produced in the 1920s and 1930s at the Bower kilns was transported as far afield as Broken Hill.

In 1863 there were 70 lime kilns in country districts of South Australia. By 1876 sixteen remained employing 120 men and in 1885 there were fifteen limeworks employing 77 men. (Donovan, 23, 41,63) By 1912 David Miller was moving into cement production in South Australia and in 1913 established the Adelaide Cement Company but lime manufacturing continued as a local industry on a small scale until the 1950s. The Bower limeworks was a local plant during the transition period for the industry towards the establishment of large scale production.

(b) it has rare, uncommon or endangered qualities that are of cultural significance due to the deteriorated condition of the site

The lime kilns at Bower are a rare and uncommon example of small scale local lime production before the 1939-1945 War. The site is endangered through destabilisation of the brick construction and needs conservation work to preserve the remains for the future.

There are three lime kilns currently entered in the State Heritage Register; the ‘Lime Kiln and Jetty’, Wool Bay (File 10112, Registered 28 November 1985); the ‘former Lime Kiln and Quarry’, Days Road Murdoch Hill (File 12900, Registered 20 November 1986) and the Lime Kilns included in ‘The Peake Ruins’ (File 13624, Registered 28 May 1987).

REFERENCES

Donovan, Peter  
An Industrial History of South Australia  
Working Paper 2, Department of Architecture  
University of Adelaide, 1979
## SITE RECORD

**Lime Kiln ruins**  
**Bower**

### Description
A group of three brick-lined kilns built in the 1920s by the Wilksch family at Bower to burn limestone. The stone was quarried on the property to the east of the kilns. Lime was sent by rail from Bower as far as Broken Hill during the 1920s and 1930s. The historic remains are in need of stabilisation.

### AMG Reference
N 6222250  
E 348500  
Map Sheet MOUNT MARY 6729-1 (1:50000)

### Boundary
Land on which the three kilns are located

### Land Description
Section 29  
Hundred of Beatty  
Certificate of Title Volume 1808 Folio 139

### Local Government
The District Council of Morgan

### Owner
[Redacted]

### Other Assessments
1983 survey, *Heritage of the Lower North*

### Photographs
1983 survey, *Heritage of the Lower North*  
Film, 24 January 1996

### Report By
Y L Reynolds
FILE INFORMATION REPORT

Lime Kila
Bower

REGISTER HISTORY AND OWNER CONSULTATION

1983

*Heritage of the Lower North* survey

30 May 1984

South Australian Heritage Committee recommended place for inclusion in the *State Heritage Register*

14 December 1995

Spoke with owner on the telephone to discuss possible heritage listing

9 January 1996

Informal Letter of Intent sent to owners

24 January 1996

Site visit to inspect remains of kilns

CRITERIA

Section 16, *Heritage Act 1993*

(a) it demonstrates important aspects of the evolution or pattern of the State's history

(b) it has rare, uncommon or endangered qualities that are of cultural significance
**HERITAGE SURVEY**  
**ITEM IDENTIFICATION SHEET**

**ITEM NAME:** Lime kiln ruins  
Former or other

**HERITAGE SIGNIFICANCE**

This group of lime kilns was established by the Wilksch family in approximately 1920 when the Wilksch blacksmithing business was diminishing due to the introduction of tractors and motor vehicles. During the 1920s and 30s the business flourished and employed up to 5 people including Len Wilksch, the son of the founder.

Sometimes lime was stored in the old stone blacksmith shed nearby, but normally it was sent away fresh by rail from Bower to as far as Broken Hill. The kiln was the only major kiln in the area, another large kiln being at Sedan. Limestone was quarried off the property to the east of the kilns and this quarry, along with the partly ruined remains of three brick lined kilns are of great archaeological interest. The relics are the only surviving in the Region and one of the few surviving in the State.

**REFERENCES**

Verbal Len Wilksch, 1982  
Archival photographs

**PHOTOGRAPH**  
Film No. 574  
Negative No. 2  
Direction of view to W

**LOCATION**
Address  
Town Bower  
Postcode  
Section 29  
Hundred Beatty  
County L.G.A. Morgan  
S.H.P. Region 8  
A.M.G. Ref. 6729-I  
54 34840 622250

**SUBJECT**  
4.4

**PERIOD**
State  
Study Area  
1905-28

**TYPE OF ITEM**
LAND  
Natural feature  
Historical site  
Historical Gdn.  
BUILDING  
STRUCTURE  
PHYSICAL CONDITION  
Ruined but of archaeological interest

**STATUS**
Reg. of State Her. Items  
Reg. Interim  
Nominated  
National Estate  
Reg. Proposed L  
National Trust  
CL RL File  
Other

**RECOMMENDATION**

(A) State  
(B) Local

PREPARED BY  
HERITAGE INVESTIGATIONS  
Date: 1982