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1986/10. The Colebrook (Jerusalem) coalfield

C.A. Bacon
M.J. Dix

Abstract

Coal was discovered in the headwaters of the Coal River north of Colebrook (Jerusalem) in 1813. Mining on a small scale has occurred in two areas north of Colebrook, one at Coalmine Bend and the other on the west bank of Wallaby Rivulet. The early mining activity at Coalmine Bend from 1842-1844 used convict labour. Coal was mined from this locality again from 1879-1890. Mining near Wallaby Creek commenced in 1891 and continued intermittently until 1921, with the same set of workings being renamed frequently.

The coal is of Triassic age and is part of the fluvial sequence at the top of the Upper Parmeener Super-Group. The area is of limited interest for further exploration.

LOCATION AND ACCESS

Coal has been mined from two areas near the town of Colebrook. The area was formerly called Jerusalem.

The first discovery of coal and subsequent mining operations were at Coalmine Bend [EN294946] on Coalmine Creek, four kilometres north of the town of Colebrook. Coalmine Creek is a tributary of Wallaby Rivulet, which in turn flows into the Coal River.

The second phase of mining near Colebrook was in an area adjacent to the railway line on the west bank of Wallaby Rivulet, one kilometre north of Colebrook township [around EN292917].

Access to this coalfield is provided by a network of sealed and unsealed roads.

GENERAL GEOLOGY

The area around Colebrook (Jerusalem) has been examined by Strzelecki (1845), Milligan (1849), Gould (1869), Nye (*in* Hills *et al.*, 1922) and more recently by Leaman (1971).

The coal occurs as thin seams in a sequence of lithic sandstone with minor lutite intervals. This rock type forms the uppermost (youngest) part of the Upper Parmeener Super-Group and overlies a series of interbedded quartz and lithic sandstones with varying amounts of lutite.

The sedimentary sequence has been intruded by Jurassic dolerite, which now caps the surrounding hills, and the area has been greatly disturbed by faulting. Each area in which coal has been mined occurs in a downfaulted graben of the coal-hosting lithic sandstone. To the east and west in both areas the host rock type is faulted against older, quartz-rich sandstone. The geology of the area is shown in Leaman (1971).

PREVIOUS MINING HISTORY

Seams of coal were found in the headwaters of the Coal River in 1813, in the district later called Jerusalem and now known as Colebrook (Besford, 1958). These seams were rediscovered by James Clare in 1841, and in 1842 Clare supervised the sinking of a shaft (at Coalmine Bend) on behalf of the Government (Booth, 1962). The Government Surveyor, Jones, was sent to inspect the workings in 1844. Jones found four outcrops of coal, on one of which was located mine workings consisting of a drift (adit) 100 m long and a shaft 12 m deep (CSO 8/108/2279, 15 January 1844). Jones sent a list of equipment needed to open the mine to the Colonial Secretary (CSO 8/108/2279, 25 January 1844) and work started in March of that year, although by August the operation was closed and the convict workers withdrawn (CSO 8/108/2279, 11 March 1844; 21 August 1844).

Strzelecki (1845) noted the occurrence of coal near Jerusalem, and a detailed description of various outcrops and mine workings was given by Milligan (1849).

The workings at Coalmine Bend on Coalmine Creek are described by Milligan (1849) as consisting of a drift (adit) 1.8 x 1.8 m and 120 m long, with various galleries branching off from the main heading and a shaft 12 m deep near the drift. Various other exploratory shafts and minor drives in the area were examined by Milligan. All workings were abandoned at this time.

Selwyn (1855) described the coal near Richmond but did not visit the Colebrook (Jerusalem) area. Gould (1869) inspected various outcrops of coal in the Colebrook (Jerusalem) area but no mining was in progress at the time of his visit. Gould sank one shaft and two bore holes in the vicinity of the Coalmine Creek workings.

In 1862 Zephaniah Williams (a convicted chartist, transported for life to Van Diemens Land and who was later involved with the New Town and Mersey coalfields) was directed by W.R. Falconer (of the Public Works Department) to get ten tons of coal from the seam at Coalmine Bend. Williams found the coal to be of poor quality, writing to Falconer: ".... I deem it incumbent to inform you of the state of the coal I am instructed to get 10 tons from. The seam is altogether three feet thick; but it will scarce produce two feet of clean coal. I never was more deceived than to-day; for on cutting into the seam I found it full of hard stone and of iron pyrites distributed throughout which in reality makes it good for nothing except for kitchen purposes, as it is quite impossible, without breaking the coal to pieces, to clean it. This is the coal there has been so much writing in praise of the most worthless seam of coal I ever saw. It contains some good coal. However I shall continue working it till I hear from you. In consequence of so much stone and iron pyrites scattered through it, it is very expensive getting and we can scarcely get tools to stand the cutting, in fact it is a seam that never will be worked for any purpose. Awaiting your answer with the utmost impatience".

No mining activity resulted from this 1862 inspection of the coal. However, in 1879 work began again at Coalmine Bend, the mine being known as the Jerusalem Colliery. This operation closed in 1890, although a small quantity of coal was extracted in 1894.

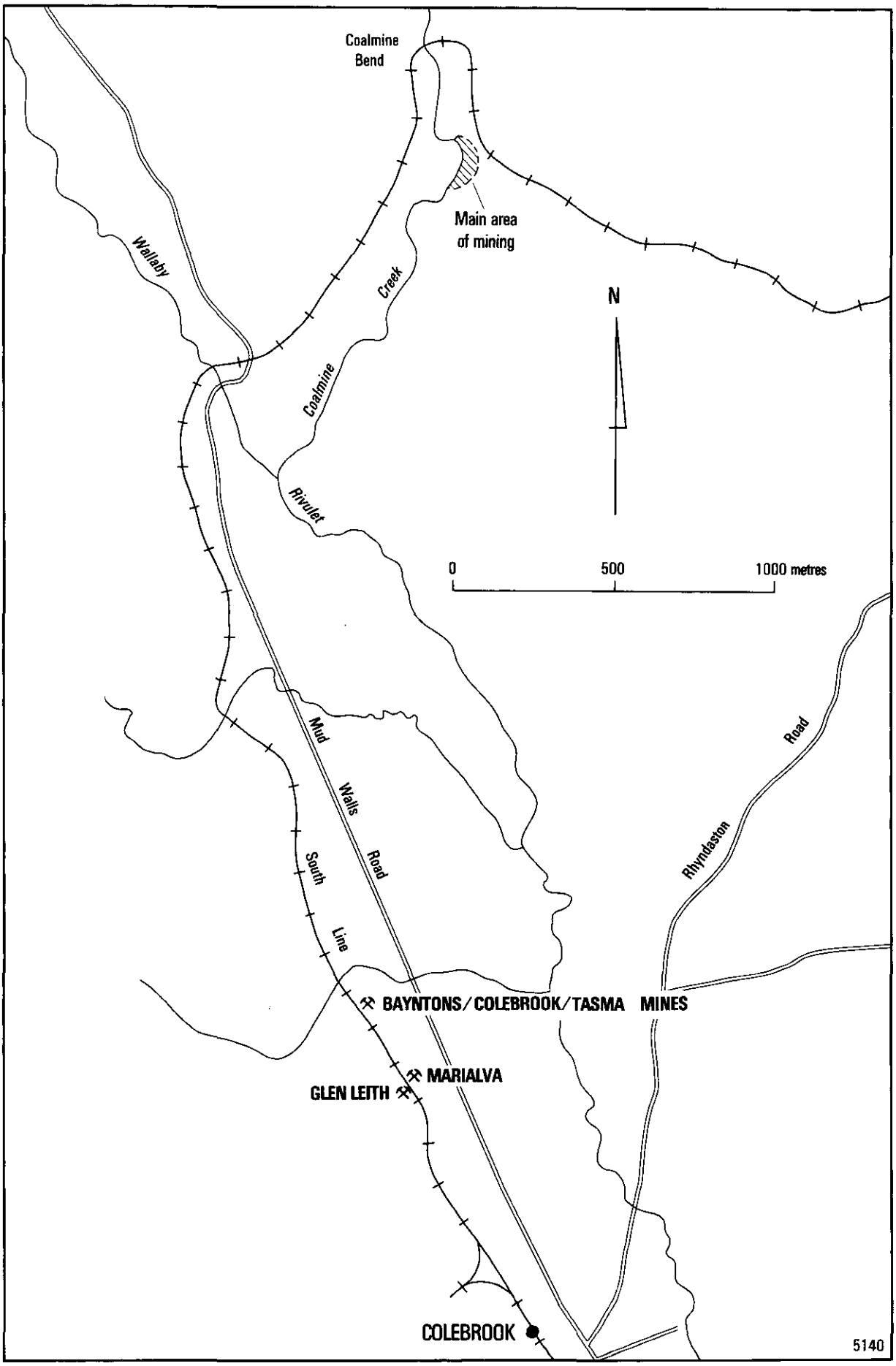

Figure 1. *Coal mines in the Colebrook district*

5 cm

Additional mining activities occurred towards the town of Colebrook, on the western bank of Wallaby Rivulet (which runs into the Coal River). A bore hole was sunk in this area by the Government in 1891. The log of this hole is given in the Annual Report of the Secretary of Mines for 1891-92 and also in Hills *et al.* (1922). Three seams of coal were intersected in this bore, the thickest being 860 mm thick.

A shaft was sunk near to this bore hole, and the three seams worked. The colliery was known as Baynton's and produced coal from 1892 to at least 1897. To the south of this mine, and on the western side of the railway, a Mr Morrison sunk a shaft and named the meagre workings the Glen Leith Colliery. Coal was being produced here in 1902. In 1903 a shaft was sunk about 70 m north of the Glen Leith mine, but on the eastern side of the railway, by the Marialva Coal Mining Company N.L., who in the same year took over Morrison's Glen Leith Mine. However operations at the Marialva Mine ceased in 1904. In 1911, a piece of ground on the eastern side of the railway line was worked by a party of twelve men for a few months. Access was gained by means of the Baynton's main shaft and these workings were called the Colebrook Coal Mine. The venture lasted only a few months, with only 482 tons of coal being mined.

In 1919 the old Baynton's mine was reopened and renamed the Tasma Colliery. Three seams were worked, as before. Mining ceased in 1921. The exact dates of operation of the various mines, and the amount of coal produced, are not clear because of the incomplete and sometimes conflicting nature of the remaining records. (Department of Mines Annual Reports 1901-1921; Tasmanian Government Railways Annual Reports; Department of Mines Underground Mine Plans 282, 223, 380).

COAL QUALITY

Only analyses of an historic nature are available from this coalfield.

	1	2	3	4	5
Moisture (%)		8.4	4.6	2.6	8.12
Ash (%)	3.97	22.4	16.4	34.4	35.54
VCM (%)		26.9	28.3	29.1	22.10
Fixed carbon (%)		42.3	50.7	33.9	34.44
Sulphur (%)					0.56

1. Sample from Coalmine Bend workings, analysed at Museum of Practical Geology, 1850 (Johnston, 1888).

2. Sample from top seam, 1891 drill hole near Wallaby Rivulet (Secretary of Mines Annual Report, 1891-92).

3. Sample from middle seam, 1891 drill hole near Wallaby Rivulet (Secretary of Mines Annual Report, 1891-92).

4. Sample from top seam, 1891 drill hole near Wallaby Rivulet (Secretary of Mines Annual Report, 1891-92).

5. Bulk sample from top seam mined in Tasma Colliery, collected 1921 (Hills *et al.*, 1922).

RECENT EXPLORATION

Two chip holes were drilled in the Colebrook area by Capricorn Mining in 1980, followed by further exploration in 1983 by CRA Exploration Pty Ltd. The area is currently held under exploration licence.

FUTURE POTENTIAL

The inferred reserves of coal in the Colebrook area are very small and the area is of limited interest for further development.

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RECORDS HELD IN STATE ARCHIVES

CSO = Records of Colonial Secretary's Office.

[20 February 1986]

APPENDIX 1

Approximate AMG co-ordinates of drill holes, adits and shafts in the Colebrook (Jerusalem) coalfield.

DEPARTMENT OF MINES - 1891 DRILLING

One hole drilled between the railway line and the road, approximately 1.2 km north-west of Colebrook Road/Rhyndaston Road junction (approximately EN292917).

CAPRICORN MINING - 1980 DRILLING

Hole 0-07	529 350 m E	5 291 310 m N
Hole 0-09	529 130 m E	5 291 760 m N

ADITS AND SHAFTS - COALMINE BEND

Main workings in area around EN29359450, but with minor areas both north and south of this area.

SHAFTS - COLEBROOK AREA

Bayntons/Tasma	EN29059175
Marialva	EN29209155