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1986/05. The Longford coalfield

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Abstract

Coal was mined at two small mines, the Norwich and Pateena collieries, intermittently from 1886 to 1919. The collieries were located close to each other near the township of Pateena, six kilometres north of Longford. The coalfield is of small areal extent and reserves are negligible. The coal is of Late Triassic age and forms a minor component of a dominantly lithic sandstone sequence with minor interbedded shale, mudstone and siltstone, from the top of the Upper Parmeener Super-Group. The coalfield is of no further economic interest, due to the limited areal extent and the thin nature of the coal seams.

LOCATION AND ACCESS

The Longford coalfield lies six kilometres north of Longford and two kilometres south of Mt Arnon [EQ091035]. Jordans Creek runs through the coalfield. Access is provided by Pateena Road and various secondary tracks.

GENERAL GEOLOGY

The Longford coalfield has been examined by Johnston (1888) and Reid (*in Hills et al.*, 1922). Johnston (1888) collected a variety of Triassic plant fossils from shales exposed on the property 'Norwich', north of Longford.

The coalfield was mapped by Blake (1959) as part of the Longford Quadrangle. The dominantly lithic sandstone sequence in which the coal seams occur forms the youngest part of the Upper Parmeener Super-Group, and is of Late Triassic age.

The sequence is of small areal extent and is faulted to the east against a dolerite sheet (along the Pateena Fault). The block of coal-bearing lithic sandstone sequence is considered by Longman and Leaman (1971) to be overlying a dolerite sheet which has intruded at the base of the Upper Parmeener Super-Group sediments in the Longford area.

An outcrop of coal in Jordans Creek, close to Pateena Road, is described by Johnston (1888) and Reid (*in Hills et al.*, 1922).

PREVIOUS MINING HISTORY

In 1886 two diamond-drill holes were sunk on the property 'Belmont' south of Longford, but coal-bearing sediments were not intersected in either hole.

The Pateena Coal Company was mining coal from a 0.6 m thick seam on land belonging to J. Wise (near Pateena) in 1886. The seam was intersected in the shaft at a depth of 80 m. In 1886 the manager was T.A. Griffiths. A new shaft, 1.8 x 1.8 m, was sunk in 1896 close to the older workings. Several additional shafts are shown on the 1896 mine plan (Department of Mines underground plan 252). A 1918 plan of the Pateena colliery shows an adit and pump shaft with some underground workings. Hills *et al.* (1922) record that from 1916-1919 some 800 tonnes of coal were raised by two men operating the Pateena mine, which consisted primarily of a dip-tunnel in the bank of Jordans Creek.

Johnston (1888) noted that four shafts had been sunk for coal at Norwich, these were all between 6 m and 21 m deep and the coal seam which was mined was 1.8-2.1 m thick. In 1890 the Norwich colliery consisted of three shafts, one already filled in, and two adits (DOM underground plan 254). Reid (*in Hills et al.*, 1922) recorded that a small quantity of coal had been raised from prospecting shafts sunk into the coal at Norwich.

COAL QUALITY

The following analysis is from coal mined from the Norwich Colliery (Johnston, 1888):

Moisture	13.00%
Ash	12.60%
Volatiles	27.30%
Fixed carbon	47.10%
Sulphur	0.55%

RECENT EXPLORATION

Two exploration drill holes were drilled by the CSR Coal Division in 1982 in the vicinity of the old mine workings (Carr, 1984). Three thin coal seams were recorded in one of the drill holes. Details of these holes are given below:

Locations

<i>Drill hole</i>	<i>AMG grid co-ordinates</i>	<i>Total depth</i>
R030	500760 m east, 5409790 m north	83.0 m
R031	500200 m east, 5409160 m north	72.7 m

Core intersections

<i>Drill hole</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Thickness (m)</i>
R030	39.1	40.0	0.90
	71.6	72.7	1.10
	74.3	74.7	0.40

FUTURE POTENTIAL

The potential for future development of the Longford coalfield is minimal.

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