

ARKWRIGHT COLLIERY

Arkwright Colliery is 2½ miles east of Chesterfield close to the Chesterfield/Bolsover main road. The colliery was started in 1938 as a small drift mine producing 500 tons a day from the eastern side of the Brimington anticline along which all the North Derbyshire seams outcrop.

The colliery has been increased in size a number of times and the new drift which is now being commenced will enable the colliery to produce 3,000 tons each day.

When the colliery was opened two adits or sloping drifts each about 500 yards long at gradients varying from 1 in 2.5 to 1 in 5 were driven following the Top Hard coal seam to work a small area of coal which was too far from the larger collieries in the Markham Valley to work economically. These Arkwright colliery drifts were not far away from two adits that had been driven in 1900 and 1926 to work an area of the Deep Soft and Blackshale seams close to the outcrop at Calow. When the Arkwright adits were completed two cross measure drifts were driven to make a connection with these older Calow adits. This inter-drift connection not only enabled ventilation to be improved by using the Arkwright adits as twin air intakes and the Calow adits as twin air returns, but exposed all the reserves for inspection and eventual development.

In 1953 the 1st Waterloo seam was developed to replace the now exhausted Top Hard seam, additional men being recruited from the Bonds Main Colliery, which was closed in that year. At this stage the output had reached 1,250 tons per day and further increase was limited by the capacity of the main haulage. To increase this capacity a reorganisation was undertaken in 1955 by the installation of a 300 tons/hour capacity plate conveyor and surface bunkers to feed the extra output to the washery. In 1964, when the output was 1,500 tons per day, it became necessary to replace the plate conveyor with a belt conveyor and the opportunity was taken again to raise capacity, this time to 425 tons per hour. By 1968, it was necessary to close a number of collieries in the south of the County because of exhaustion of economically workable reserves, and Arkwright Colliery was selected for further development to make good some of the lost output. Plans were put in hand to increase the output to 3,000 tons per day. This increase in output provided extra employment and it was necessary to provide additional bathing facilities. These, together with further underground bunkerage in the coal haulage system, were constructed at a total cost of £170,000.

Since 1968 the colliery has produced about 625,000 tons a year at an overall productivity of 71.1 cwt. per manshift.

As the production is increased the workings have moved farther from the surface drifts and ventilation has become more difficult.

As a temporary measure a new fan has been installed but it is clear that if the colliery is to be utilised to the fullest extent, a new source of ventilation is required to replace the Calow adits, which are now in need of very expensive routine repairs.

It is primarily for this purpose that the new surface drift, which will be 600 yards long reaching to the existing roadways in the 1st Waterloo seam, is being driven.

The drift will be connected on the surface to a fan house accommodating two fans, which will be transferred from other closed collieries. The estimated cost of these extensions is £250,000.

Production from Arkwright Colliery is currently from two faces in the 2nd Waterloo seam and one face in each of the 2nd Ell and Low Main seams. All the faces are equipped with shearer loaders and supported by powered roof supports using the latest gate-end techniques.