

THE PIONEER KEROSENE WORKS MOUNT KEMBLA N.S.W.

Whilst engaged on a geological expedition covering portions of the South Coast of New South Wales during the year 1849 the eminent geologist, **Reverend W.B. Clarke**, is credited with the discovery of a good outcrop of Kerosene shale on the northern slopes of Mount Kembla some five miles south-west of Wollongong, then the principal settlement of the area.

The find was duly noted but it was not until about 1865 that an attempt was made to exploit the shale seam on a commercial basis. A committee of local residents was formed to raise funds to test and prove the quality of the shale and the possibilities of its treatment. However, like most committees working on a voluntary basis its work was ineffectual and brought no results or recommendations of any value. The matter was then taken up by John Graham, the owner of the shale property, as from March 1865. A test block of the shale was shipped to the Government Analyst at Sydney whose Department proved that every ton of shale, if similar to the sample, should yield a return of fifty gallons of refined oil, a report that John Graham deemed very satisfactory.

The aptly named Pioneer Kerosene Works were established during December 1865 on a small plateau some two acres in extent, just below the previously mentioned outcrop. The venture is claimed to be the first shale processing plant to operate in the state and as such is of historic interest.

Fortunately an American oil refiner named W.J. Hammil whilst on a visit to Melbourne became interested in the project, and was appointed manager. This gentleman prepared plans for the bank of retorts for the manufacture of crude oil, together with the equipment required in its distillation. This plant, amongst its other components, comprised a 600 gallon capacity still, a fractionating column, a condenser, oil storage tanks, and a cooling water system. A large single storied

building with stone walls was erected to house the refinery, the furnace chimney of the still being placed at the end. The lower portion of the chimney was of large width and tapered inwards towards the top level, local stone being used for its construction. This hefty structure was surmounted by a wrought-iron pipe shaped flue, some twenty feet in height, which supplied the necessary draught. A track was constructed from the Cordeaux Road to the works and the intervening American Creek was crossed by a bridge with concrete abutments. The twenty retorts initially made for the establishment were moulded by Messrs P.N. Russell, an engineering firm located at Bathurst Street Sydney.

Shale supplies were taken from two adits driven into the outcrop at a height of about thirty feet above the level of the works, whilst a seam of anthracite coal, located some seventy feet above the shale seam, provided fuel for the various steam raising, and still and retorting furnaces. According to report the weekly average output of crude oil amounted to 1500 gallons, all of which was available for distillation. The product known as "AMERICAN CREEK ILLUMINATION OIL" found a ready market amongst the local store-keepers at Wollongong and elsewhere, delivery being made over the indifferent roads of the district by means of horse-drawn carts. The administration was fortunate in obtaining a protective duty of about six-pence per gallon against the competitive inroads of American imported oil of similar quality.

It is known that a short length of tramway was laid for the conveyance of hot ash from the retort bank to the nearby dump, and it may be assumed that the shale adits were also served by skipways. Details of surface arrangements are not to hand and any trace of their route formation has long been obliterated with the erection of buildings and equipment for the new Nebo Colliery which occupies the property.