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WEST STONESDALE MINE

By John H. McNeil.

Introduction

West Stonesdale Mine is situated high on the wind swept moors above Swaledale in North Yorkshire, at a height of 1300 feet O.D. The exact location is at a point where Great Bridge Gill joins Stonesdale Beck, near Starting Gill (Startindale Gill), and is close to the road running from Keld to the Tan Hill Inn (N.G.R. NY 886036).

The following article details a brief history of the mine and describes the surface features which remain for the present day explorer.

History

Most of this area of upper Swaledale was worked in the 18th century by shallow shafts into the upper limestone beds and the 11 fathom grits where it was found to be very productive.

A new mine was opened on Stonesdale Moor by a Mr. Lonsdale Bradley to work the Blakethwaite Vein. Mr. Bradley had previously held the lease on the Blakethwaite Mine in Gunnerside Gill, a tributary of the river Swale further to the east, up until the closure of that mine in 1849. The Blakethwaite Mine worked the eastern extremity of the Blakethwaite Vein where it produced £120,000 worth of lead ore before being finally abandoned due to water trouble and this despite the fact that powerful hydraulic pumping machinery had been installed.

The mine at Stonesdale Moor was opened to work the western extremity of the Blakethwaite Vein, where it was also believed to be rich in ore, and was started in about 1850. The actual location of the shaft was determined by two main factors: the hill to the north rises rapidly and a shaft sunk there directly on to the vein would have had to be deep and secondly the quantity of water to be pumped would have increased. However, at the place selected in the gill there was never any problem with water and the pumping engine erected was more than adequate for the duty which it was called upon to perform.

A shaft 47 fathoms deep was therefore sunk at a position 375 fathoms south of the Blakethwaite Vein and from the foot of this shaft an adit level was driven off to the north. This adit intersected a NE/SW cross vein after 230 fathoms and this cross vein was then followed for a distance of 233 fathoms to its intersection with the Blakethwaite Vein. The cross vein was extremely productive and produced £12,000 worth of ore. On reaching the Blakethwaite Vein, however, it was found to be unproductive and containing no ore. After the vein had been followed to the west for 100 fathoms without finding ore the mine was finally abandoned. The vein was never explored in the top Setts and the whole project was a great disappointment to the promoters as well as to Sir George Denys, who had held high hopes for its success and advocated further working.

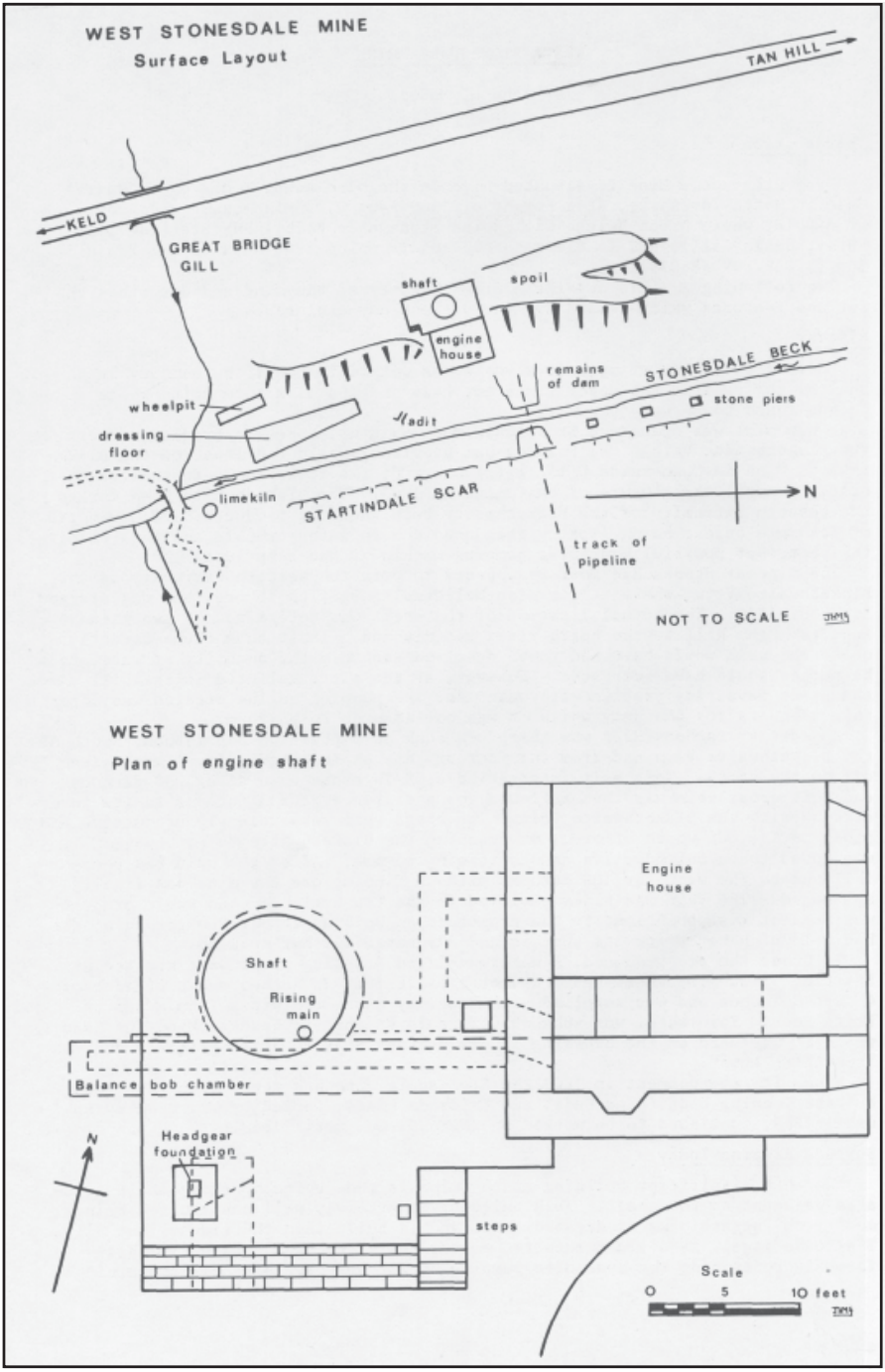
WEST STONESDALE MINE
Surface Layout
TAN HILL
KELD
GREAT BRIDGE GILL
shaft
spoil
engine house
remains of dam
STONESDALE BECK
stone piers
wheelpit
adit
dressing floor
limekiln
STARTINDALE SCAR
N
track of pipeline
NOT TO SCALE
WEST STONESDALE MINE
Plan of engine shaft
Engine house
Shaft
Rising main
Balance bob chamber
N
Headgear foundation
steps
Scale
0 5 10 feet

Plate 1.Shaft Top View looking north May 1980

Plate 2. Engine House View looking west May 1980

To dress the ore produced, a waterwheel and dressing plant were erected at Starting Gill. The wheel had a diameter of 28 feet 10 inches and a breadth of 4 feet 8 inches and was supplied with water by cast iron pipes from a dam on Frith Moor. This wheel

was subsequently sold to the Sir Francis Mine for £150 where it was used on the dressing floors at that mine to drive grinders and "scotching tubs".

Since its abandonment in 1861 the Stonesdale Mine has never been reworked, but the Loaning Ends (Lane Ends) and Keldside Mines, worked by Mr. Bradley up until 1863, continued to be worked by the A.D. Co. until 1868.

Surface Remains Today

The most significant building at the mine is the engine house which is situated adjacent to the shaft. This building is extremely well constructed being made from large blocks of dressed stone and is built into the side of the hill. The house itself is divided into two parts; the right hand (northerly) half formerly containing the hydraulic pumping engine and the left half containing [15] the pump rods and cranks. Proceeding through an arched passage at the rear of the engine house leads to the edge of the shaft and the balance bob chamber beyond. The bob and rod chamber has a shallow groove cut in the floor and a square opening let into the right hand wall.

At the time of the survey carried out by society members (August 1976) the water stood to within 38 feet of the shaft top (10 feet 8 inches from the floor of the bob chamber). During subsequent visits to the site the water level was found to be lower and on these occasions it was possible to see the rising main in the shaft. The shaft itself is approximately 9 feet in diameter, varying slightly, and is stone lined to at least water level.

An interesting series of passages connect the shaft with a manhole on the surface and an opening high in the rear wall of the engine house. The purpose of these passages is as yet unknown and there are also other openings in the rear wall of the engine house.

The shaft is at present covered with railway sleepers and since the survey has been used as a dumping place for farm rubbish. Grooves cut into the stonework at the shaft top would suggest that a head frame was at one time erected over the shaft and used in hauling operations, the shaft being of ample dimensions for a small cage or kibble in addition to the pump rods and rising main.

South of the shaft top are the dressing floors which are arranged on two levels. At the side of Great Bridge Gill are the remains of the wheelpit used to power the crushing and dressing machinery. The line of this wheelpit would also suggest that it was used for winding purposes in the shaft. The water to this wheel was supplied by cast iron pipes but no trace of these has been found. The wheel would have been of either the overshot or high breast fed type. The various courses of the tailrace and other water tunnels on the dressing floors can also be traced.

Near the shaft the remains of the now collapsed drainage adit from the shaft can be seen as a small depression near the side of Stonesdale Beck. Upstream from the engine house lie the remains of a dam or earthwork probably used to convey the water pipes to the hydraulic engine and it is still possible to see the track of the

Plate 3. View of Balance Bob Chamber September 1978

former pipeline on the moor opposite. Even further upstream is a line of stone piers which may have carried a launder or pipe bringing additional water supplies to the dressing floors.

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