EXTRACT FROM ENGLISH HERITAGE'S RECORD OF SCHEDULED MONUMENTS

MONUMENT: Engine Sough and associated nucleated lead mine, 500m south of Mam Tor

PARISH: CASTLETON

DISTRICT: HIGH PEAK

COUNTY: DERBYSHIRE

NATIONAL MONUMENT NO: 27224

NATIONAL GRID REFERENCE(S): SK12768323

DESCRIPTION OF THE MONUMENT

The monument is located below Mam Tor and includes part of Engine Sough together with an adjacent area of mineworkings which are part of Odin Mine. Odin is an extensive mine and further mineworkings exist to east and west. These have not been included in the scheduling due to their isolation from the core area. Another part of Odin Mine, occurring on the limestone to the east, is the subject of a separate scheduling.
On the north east side of the monument the remains include mine shafts and spoil tips which are partly enclosed on the north and west sides by the remains of a drystone wall. The mine site is approached from the south east by a mine-related cart track which runs alongside the field boundary wall and continues towards Mam Tor. On the south west side, the monument includes two mounds located c.30m apart which mark the location of shafts sunk during the construction of Engine Sough. The sough and the adjacent mineworkings are located on shale at its interface with the limestone plateau to the south and east of Mam Tor. They were driven into the shale specifically to seek the veins of lead ore which were hard to follow underground because of the complexities of the beds of shale and limestone.
Odin Mine is a multi-period mine which was reputedly worked during the tenth century though the earliest written reference which appears to mention it by name dates to 1260. The limestone was certainly worked by 1600, though workings on the shale are probably later than this. The mine was in continuous operation between 1704 and 1867.

ASSESSMENT OF IMPORTANCE

Nucleated lead mines are a prominent type of field monument produced by lead mining. They consist of a range of features grouped around the adits and/or shafts of a mine. The simplest examples contain merely a shaft or adit with associated spoil tip, but more complex and (in general) later examples may include remains of engine houses for pumping and/or winding from shafts, housing, lodging shops and offices, powder houses for storing gunpowder, power transmission features such as wheel pits, dams and leats. The majority of nucleated lead mines also included ore works, where the mixture of ore and waste rock extracted from the ground was separated ('dressed') to form a smeltable concentrate. The range of processes used can be summarised as: picking out of clean lumps of ore and waste; breaking down of lumps to smaller sizes (either by manual hammering or mechanical crushing); sorting of broken

material by size; separation of gravel-sized material by shaking on a sieve in a tub of water ('jigging'); and separation of finer material by washing away the lighter waste in a current of water ('buddling'). The field remains of ore works vary widely and include the remains of crushing devices, separating structures and tanks, tips of distinctive waste from the various processes, together with associated water supply and power installations, such as wheel pits and, more rarely, steam engine houses.
The majority of nucleated lead mines with ore works are of 18th to 20th century date, earlier mining being normally by rake or hush and including scattered ore dressing features (a 'hush' is a gully or ravine partly excavated by use of a controlled torrent of water to reveal or exploit a vein of mineral ore). Nucleated lead mines often illustrate the great advances in industrial technology associated with the period known as the Industrial Revolution and, sometimes, also inform an understanding of the great changes in social conditions which accompanied it. Because of the greatly increased scale of working associated with nucleated mining such features can be a major component of many upland landscapes. It is estimated that several thousand sites exist, the majority being small mines of limited importance, although the important early remains of many larger mines have often been greatly modified or destroyed by continued working or by modern reworking. A sample of the better preserved sites, illustrating the regional, chronological and technological range of the class, is considered to merit protection.

Odin mine is a well preserved and well documented lead working site with a wide variety of mining and ore processing remains. The importance of the area associated with Engine Sough lies in its demonstration of the techniques and technologies used to locate and extract lead ore in a geologically complex area. Soughs were horizontal tunnels dug specifically for draining water away from underground mineworkings. Although they are common features in association with Derbyshire lead mines, they are rare elsewhere in the country. Well preserved examples like Engine Sough are, therefore, considered to be of national importance.

MONUMENT INCLUDED IN THE SCHEDULE ON 13th June 1996