

Upper Wharfedale Heritage Group
Lead and Coal Mining in Upper Wharfedale



Coldstreak Lead Mine
Hawkswick



Upper Wharfedale Heritage Group

Lead and Coal Mining Survey Report

Site – Coldstreak Lead Mine	Site ID No. – LCMS 01
Location – Hawkswick	NGR – SD 947 717
Survey Dates – October 2017 - April 2019	Report Date – June 2019

Introduction

This report is part of the Upper Wharfedale Heritage Group's survey of lead and coal mining sites in Upper Wharfedale. The purpose of the survey is to record the principal features of some of the less well documented sites in their landscape settings.

Summary

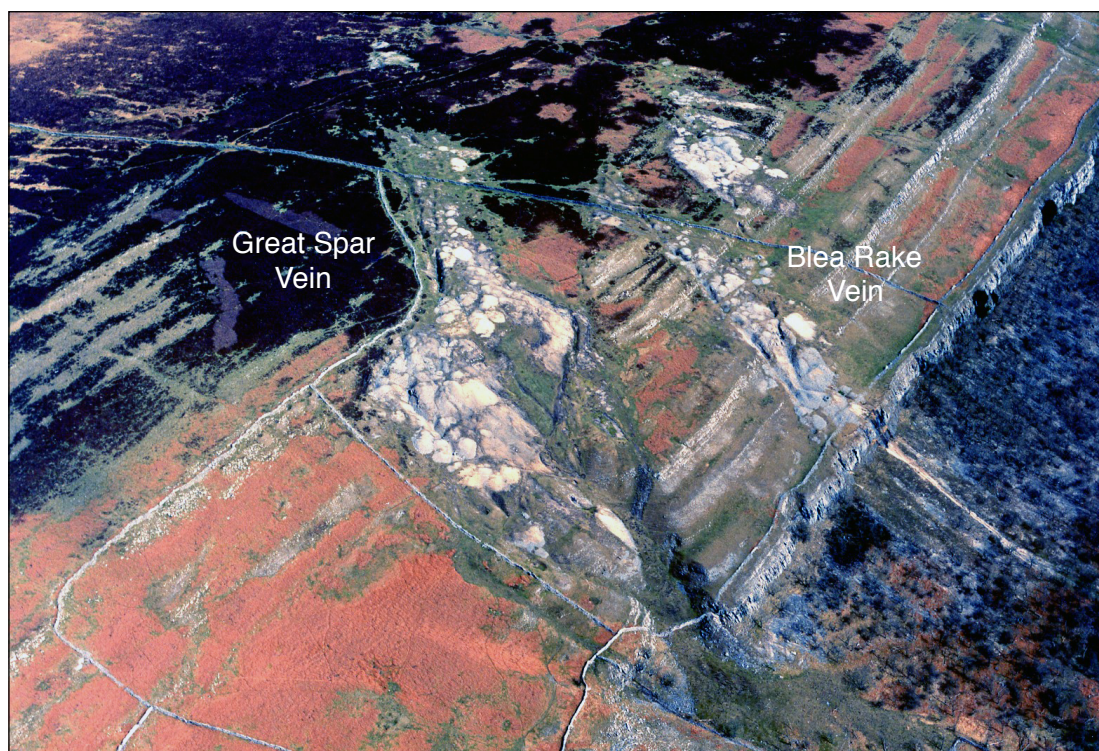
Coldstreak is an extensive mining site with remains including open works, collapsed and open shafts, adits and ruined stone structures. There is no evidence of mechanisation. This was an area of small-scale mining operations undertaken over a long period of time.

History of the site

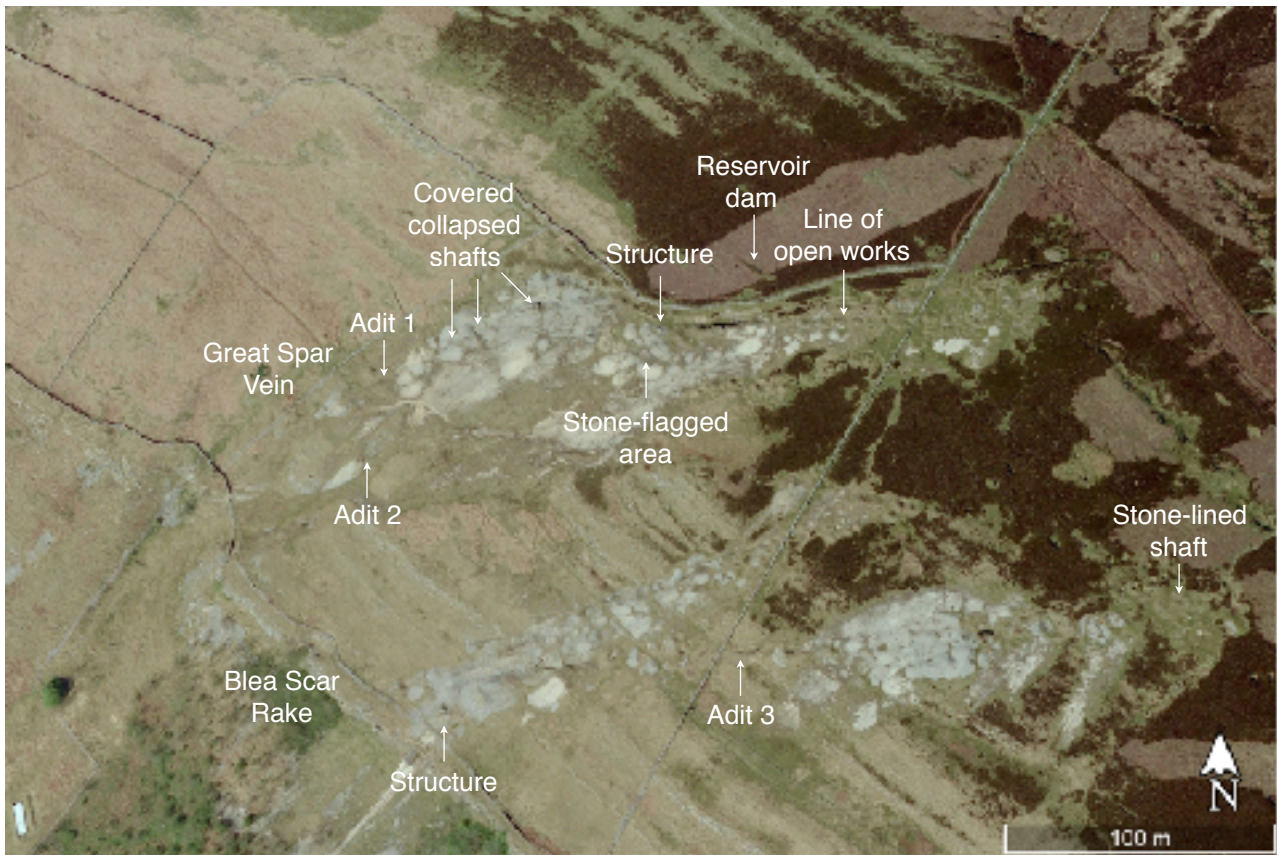
The area is recorded as being worked in the 1740s. James Waterhouse and Partners took four meers on the Great Spar Vein and William, James and Samuel Calvert took four meers on the Blea Scar Rake. (Gill,1994) "The extensive opencasting and the number of shallow shafts proves that there were other grants but nothing is known of them." (Gill,1994, p80)

Description of the site

Located on the flank of Hawkswick Moor east of Arncliffe, the site consists of a group of veins worked at the surface and by shallow shafts and adits. The miners worked two principal veins which are aligned east-west, the Great Spar Vein and the Blea Scar Rake.



P1 - Aerial photograph of the site (Richard Bird, 1969).



P2 - Aerial photograph of the site (Google Image).

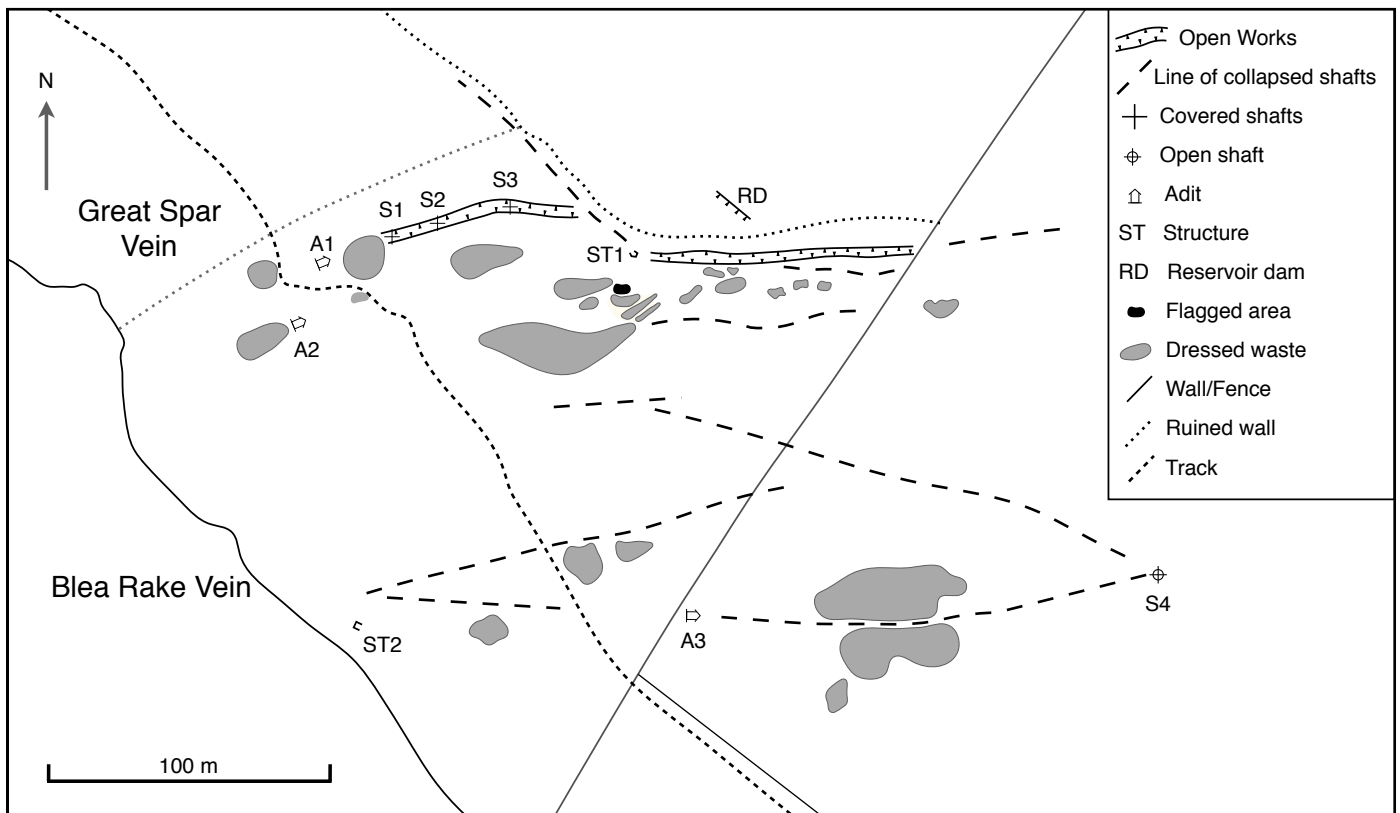


Fig. 1 - Map of the site showing principal features.

The map (Fig. 1) shows the main features of the site with the Great Spar vein to the north and the Blea Rake vein to the south. Much of the area is covered by deads (waste rock) or by tailings (dressed waste). Besides the two main veins there are also many scattered filled shafts. The western portion of the Great Spar Vein (P3), running down the steep slope of the valley side, has been worked from the surface and from shallow shafts. The sides of the workings consist of collapsing piles of deads. Along the vein, in the bottom of the workings, small stone structures mark the tops of shallow filled shafts (S1, S2 and S3) (P4, P5, P6 and P7). Shaft S3 is still open to a depth of nearly 4 metres covered only by a few large rocks.

The eastern portion of the Great Spar Vein has been worked from the surface for approximately 100 metres (P8, P9, P10 and P11). The open cut is up to five metres deep. It has steep sides, formed of the limestone bedrock, which have collapsed in places.

At the western end of the Great Spar Vein there are two adits. One is completely filled (A1) (P12). The other adit (A2) is cut in limestone and the entrance is partly blocked by boulders (P13, P14, and P15). There is a pile of tailings downslope beneath it. This adit was surveyed by the Northern Cavern and Mine Research Society in 1970. It consisted of a short level, approximately 25 metres in length, driven on to the principal cross vein (Gill, 1994, p80).

At the western end of the Blea Scar Rake the hillside is very steep and covered with furrowed tips of deads. Further east, on a more gentle slope, the vein is marked by a line of filled shafts and open works and is flanked by piles of deads and tailings. There is an adit (A3) at the start of this portion of the vein cut in limestone (P16 and P17). There is very little waste suggesting that the adit may not have been very deep.

At the eastern end of the vein, on a platform, there is an open stone-lined shaft (S4) covered by a piece of old agricultural machinery (wuffler wheel from a hay tedder) (P18 and P19). This shaft is 8 metres deep. Members of NCMRS descended it c.1972 and found some work on the vein, plus cave development (Mike Gill, pers comm).

To the north above the Great Spar Vein there are the remains of a small dam (RD) and reservoir built on the hillside approximately 24 metres in length and 3 metres wide. The retaining bank is approximately half a metre high (P20). During wet periods the dam still holds water (P21). A short leat from the eastern end of the dam may be followed towards the Great Spar Vein open works. The reservoir provided water for the dressing process. When the lead ore had been sorted and broken by hand into smaller pieces it was washed to separate the lighter waste material from the heavier lead ore.

There are two ruined structures on the site, the purpose of each is unclear. At the western end of the main open works on the Great Scar Vein there are the remains of a structure which may have been a small building (ST1) (P22, P23, P24 and P25). It is a circular ruin, made up of large stones with some stones which are arranged in the appearance of a hearth but without any chimney opening. One large stone by the collapsed wall has a drill mark. At the western end of the Blea Scar Rake, at the bottom of large tips of deads is a small three-sided stone structure (ST2) (P26).

To the south of the ruined structure (S1) is a stone-flagged platform made of flat sandstone blocks (P27, P28 and P29). It is loosely elliptical in shape, approximately 5 metres by 3.5 metres. The area downslope from this is covered in dressed waste. Upslope from the platform there is the remains of a leat.

Interpretation

The shallow open works and shafts show that this was an area of small-scale mining operations focused on the two principal veins. Other lines and groups of filled shafts, which in places impinge one on another suggest a long period of working. The widespread distribution of dressed waste suggests piecemeal operations rather than a centrally organised site. The lack of any evidence of mechanisation, such as waterwheel pits, or any large structures supports the view that these were small-scale operations. The records of the leases taken in the mid-eighteenth century also support this interpretation.



P3 - Western portion of the Great Spar Vein looking north-east up the slope. In the foreground the rough stonework marks a filled shaft (S1). NGR SD 94575 71772. (Scale one metre ranging poles)



P4 - Stone structure around a filled shaft top (S1) on the Great Spar Vein. NGR SD 94581 71774. (Scale one metre ranging poles)



P5 - Stone structure around a filled shaft top (S2) on the Great Spar Vein. NGR SD 94592 71778. (Scale one metre ranging poles)



P6 - Waste heaps around filled shaft top (S1). Finer material on the left is waste from ore dressing (tailings). (Scale one metre ranging poles)



P7 - Covered shaft top (S3) on the Great Spar Vein. NGR SD 94632 71786. (Scale two metre ranging pole)



P8 - Great Spar Vein open works - eastern portion. Looking west. NGR SD 94800 71760.
(Scale two metre ranging pole)



P9 - Great Spar Vein open works - eastern portion. Looking west. NGR SD 94759 71762.
(Scale two metre ranging pole)



P10 - Great Spar Vein open works - eastern portion. Looking west. NGR SD 94722 71763. (Scale two metre ranging pole)



P11 - Great Spar Vein open works - eastern portion. Looking east up the slope. NGR SD 94691 71762. (Scale one metre ranging pole)



P12 - Filled adit (A1) - Great Spar Vein. NGR SD 94544 71759. (Scale one metre ranging poles)



P13 - Adit (A2) and tailings heap - Great Spar Vein. NGR SD 94528 71733.



P14 - Adit (A2) - Great Spar Vein. Cut in limestone NGR SD 94542 71726. (Scale one metre ranging poles)



P15 - Adit (A2). Small open level behind boulders. (Scale one metre ranging poles)



P16 - Adit (A3) - Blea Scar Rake. NGR SD 94714 71597. (Scale one metre ranging poles)



P17 - Adit (A3) - Blea Scar Rake. Small open level behind boulders. (Scale one metre ranging poles)



P18 - Platform at the eastern end of Blea Scar Rake with shaft. Shaft covered by a piece of old agricultural machinery (wuffler wheel from a hay tedder). The top of the shaft is stone-lined and the shaft is 8m deep. NGR SD 94888 71604. (Scale one metre ranging poles)



P19 - Top of the shaft. (Scale one metre ranging pole)



P20 - Reservoir dam. Built across the hillside (pale green vegetation). The brown area between the ranging poles is the area of the reservoir, dry when this photograph was taken. The reservoir is approximately 24m long and 3m wide and the retaining bank 0.5m high. NGR SD 94730 71791. (Scale one metre ranging poles)



P21 - Reservoir after a wet period. (Scale one metre ranging poles)



P22 - Ruined circular stone structure on the Great Spar Vein. Approximately 4m x 4m. The walls are built of sandstone blocks and are approximately half a metre thick. NGR SD 94685 71764. Looking south east. (Scale one metre ranging poles)



P23 - Ruined circular stone structure on the Great Spar Vein. Looking east. (Scale one metre ranging pole)



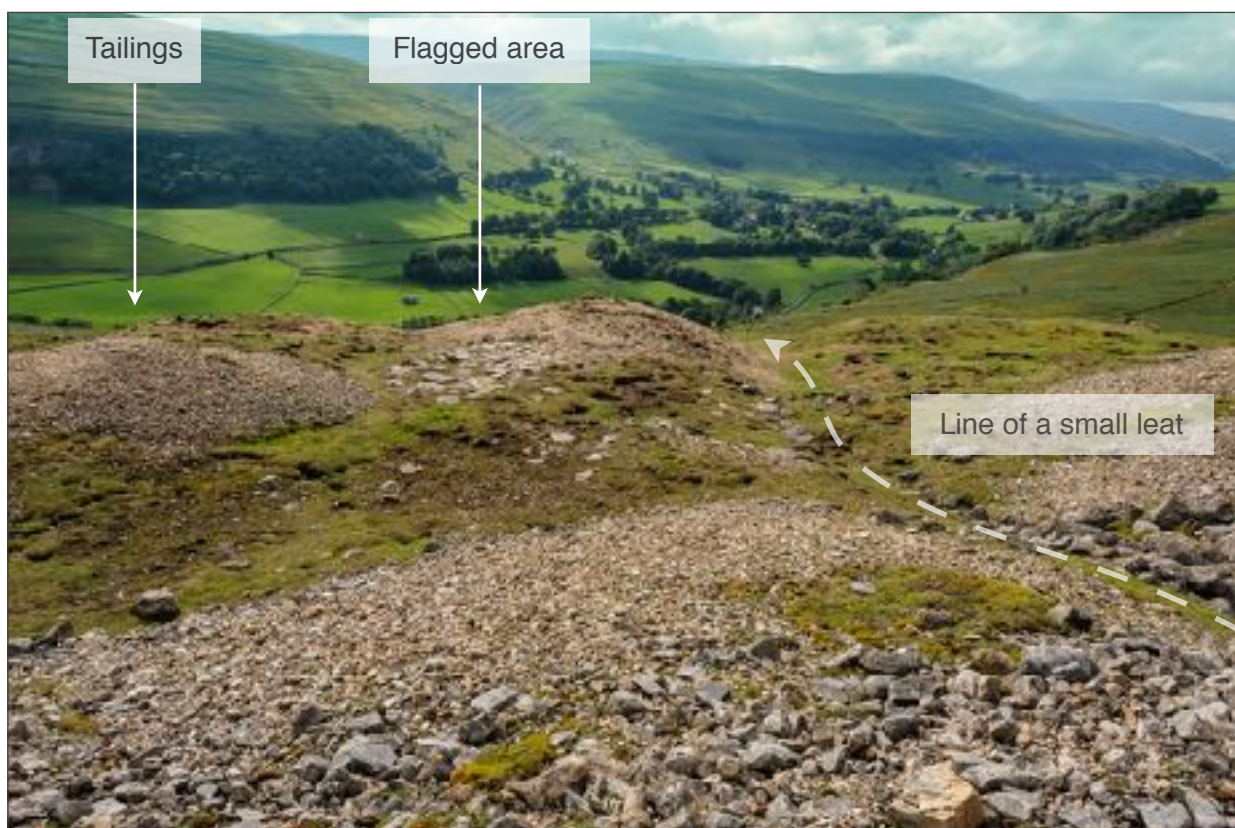
P24 - Ruined circular stone structure on the Great Spar Vein. Looking south west. (Scale one metre ranging poles)



P25 - Ruined circular stone structure on the Great Spar Vein. Looking west. (Scale one metre ranging poles)



P26 - Ruined stone structure at the western end of Blea Scar Rake. The structure consists of three low walls built of sandstone blocks. NGR SD 94582 71595. (Scale one metre ranging poles)



P27 - Ore dressing area on Great Spar Vein. Stone flagged area where ore was crushed. Leat provided water for separating waste (gangue minerals) from heavier lead ore. Waste from dressing process (tailings) downslope beyond. NGR SD 94676 71744. (Scale one metre ranging poles)



P28 - Area flagged with sandstone blocks. Dressed waste between the blocks. These areas are being recolonised by plants, notably metallophytes like Spring Sandwort, also known Leadwort, and Mountain Pansy. (Scale one metre ranging poles)



P29 - Area flagged with sandstone blocks. Dressed waste between the blocks. (Scale one metre ranging poles)

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Sources

1. British Mining No.49 - The Wharfedale Mines, Gill, 1994.
2. Lead Mining in the Mid-Pennines, Raistrick, 1973.
3. Geology of the North Pennine Orefield (Volume 2), BGS, 1985.

Survey details

Surveyors - Pat Carroll, Phil Carroll, Peter Gallagher, Helen Steele, William Varley, Maurice White, Alan Williams, Mark Woronowski. Photographs - Alan Williams, William Varley. Report - William Varley. The survey was undertaken between October 2017 and April 2019. The survey group is grateful to Mike Gill (NMRS) for additional information about the site and to Sue Green for permission to survey and record the landscape.