

Report on Archaeological Assessment
at South Tavy Head,
Dartmoor National Park



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Date: 27 June 2014

Non-Technical Summary

This report outlines the results of an Archaeological Assessment carried out in advance of restoration work, as part of the Dartmoor Mires Project, at a site known for the purposes of the project as South Tavy Head in the parish of Dartmoor Forest. The purpose of this work is to assess the potential for archaeological features within the restoration area and vehicle access route and identify impacts that works relating to the restoration might have on the archaeological resources that survive in these areas. This report includes the results of a desk based assessment and walkover survey of the site and access route. Consultation of the Dartmoor Historic Environment Record (HER), Scheduled Monuments (SAM), English Heritage Surveys and historic mapping indicate that there are no known recorded monuments within the restoration site boundary. Examination of these sources combined with a walkover survey indicated that the access route to the site traverses the Lich Way and runs in proximity to a number of industrial and prehistoric features.

Given the preservative nature of peat there remains the potential for previously unrecorded archaeological features or artefacts to be uncovered within the peat during restoration work. This will be mitigated by the undertaking of a part-time archaeological watching brief by the author during restoration work. In the absence of the author, the project officer will have agreed to stop work and contact the DNPA Archaeologists immediately.

Contractors will be provided with maps and/or GIS data illustrating the location of archaeological monuments and areas that have archaeological potential and will be instructed to avoid these areas.

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1 Introduction

- 1.1 This report outlines the results of an archaeological assessment, commissioned by the Dartmoor Mires Project, and carried out in advance of restoration work at South Tavy Head in northern Dartmoor (Fig. 1). The purpose of this assessment is to identify any recorded historic environment features, identify previously unknown features, establish the potential impact that works may have on such features and mitigate any impacts the project may have on the historic environment. It includes a desk based assessment and the results of a walk over survey of the site and the access route. Restoration work is scheduled to take place at the site during August 2013.

2 Site location and topography

- 2.1 The Dartmoor Mires site is known for the purposes of the project as South Tavy Head and is located on an area of relatively flat upland at the headwaters of the Cowsic, Tavy, Walkham and East Dart Rivers (OSGR SX594810) in the parish of Dartmoor Forest (Fig. 2). It is located, 7km north of Princetown, 1.8km south southwest and 1.3km north of Cut Hill and Devil's Tor, respectively. The restoration boundary encompasses approximately 5.91 ha of high quality blanket bog between 535m and 540m OD (Fig. 3, Plates 1-3).

3 Methodology

3.1 Desk based Assessment

- 3.1.1 The assessment included consultation of the relevant cartographic sources including the Ordnance Survey 6 inch Maps (1886-1893 and 1906-1907). LiDAR images of the restoration site and access route were also examined. Primary and secondary sources consulted included the register of Scheduled Monuments (SAM), the Historic Environment Record (HER) and English Heritage (EH) field survey results for Dartmoor and any other relevant archaeological publications relating to Dartmoor. Aerial photographs of the National Park dating to 1947, 1999, 2006 and 2010 were also carefully examined for archaeological features.
- 3.1.2 The results of an Archaeological and Palaeoecological Survey, which included targeted GPR survey of the restoration site, carried out by Dr. Ralph Fyfe, were also taken into consideration (Fyfe, Davies, Coombe, 2012).

3.2 Walkover Surveys

- 3.2.1 The access route to the restoration area was subject to an archaeological walkover survey on 3rd June and 4th July 2013, in advance of restoration

works. A 20m corridor either side of the route was examined for recorded and unknown archaeological features. A number of recorded features were identified along or in proximity to the access route and are discussed in Section 5.3 below.

4 Results of desk based assessment

4.1 Map regression

4.1.1 The first (1886-1893) and second (1906-1907) edition six inch Ordnance Survey maps were examined for evidence of any structures or features that may have been previously extant within the site boundary or along the access route (Fig.s 4-5). Both maps show that this part of Dartmoor was illustrated as open moorland in the nineteenth and early twentieth century and therefore remains unchanged today.

4.1.2 No features or structures were recorded on any of the maps within the restoration area. However, the Lich Way, a well-known historic route across Dartmoor recorded on both the first and second edition Ordnance maps, is traversed by the access route (Fig. 6).

4.1.3 The Tithe Map for the Parish of Lydford (1840), now known as Dartmoor Forest, was also consulted but the area within which the restoration site and access route were not recorded so no map exists for this area.

4.2 Prehistoric landscape

4.2.1 There are no recorded archaeological monuments within the restoration area at South Tavy Head but there are a substantial number of monuments located within a 1km radius of the access route and restoration site (Fig.s 7-11).

4.2.2 The stone row on Conies Down (SAM 1008012, HER 4592, EH 439578) is located in proximity to the proposed access route. The stone row is orientated north-northeast by south-southwest on the western slope of Conies Down. The access route was positioned 60m west of and parallel to the stone row, in order to avoid impacting on this feature (see Fig.s 9 & 13). The English Heritage survey, last updated in 2005, records it as 145m long with a total of 17 upright stones and 15 recumbent stones. It was originally a double alignment of stones, but only three pairs of upright stones survive today. The uphill side of the stone row terminates at 506m OD, making it the second highest stone row on Dartmoor after Cut Hill stone row.

4.2.3 A monument listed as a round cairn on the SAM (SAM 22221) and as a round barrow on the HER (4216) is located within 40m of the access route, to the north of Conies Down Tor (see Fig.s 10 & 14). This same monument is described by the EH Survey field investigators as a natural area of undug peat with some natural slabs (EH 439679), which were previously thought to be a

cist. The author and Andy Crab, Dartmoor National Park archaeologist, identified this feature during a visit the site. Its function is uncertain but its location has been recorded using differential GPS and it will be avoided during restoration works.

- 4.2.4 Two polished grey flint axes (HER 3575, EH 440620) were recovered from turf ties approximately 700m west-northwest of the restoration site (see Fig. 11). They are currently housed in Plymouth Museum.
- 4.2.5 There is extensive evidence for Bronze Age settlement along the West Dart and Cowsic Rivers indicating that this landscape was a focus for much human activity during the Bronze Age. The settlement evidence nearest the restoration site comprises four small hut circles and ruins of small paddocks (HER6760) located 700m directly east of the site, on the slopes of the West Dart River (Fig. 11). Further settlement evidence is found in the form of an enclosed hut circle settlement (HER 13031) 1.14km southeast of the restoration site. This scheduled monument (SAM 1019571) is sited on the western slopes above the West Dart River and is one on the highest on the Moor at 500m above sea level. The settlement was excavated by the Dartmoor Exploration Committee in 1898, who recovered pottery, flints, cooking stones and charcoal from one of the huts. Interestingly, a cairn (HER 61965) lies approximately 30m south of the settlement site.
- 4.2.6 There are five clusters of Bronze Age settlement sites along the Cowsic River, four of which are sited on its western slopes (Fig.s 9-10). The northernmost settlement, located 201m east of the access route and 1.2km south of the restoration site includes two enclosures (SAM 22255, EH 965488) an unenclosed hut circle settlement (HER 48266) and a cairn (SAM 22254, HER 48268, EH 1065420). Approximately 240m to the south are two connected enclosures with seven hut circles, five of which are within enclosures (SAM 22223, HER4589, EH 439581). A single hut within an enclosure is located 370m to the south-southwest (HER 4623, EH 429584). The southernmost settlement is located 380m to the south-southwest and comprises two enclosed hut circle settlements, a rectangular building platform and a cairn (SAM 22250, HER 18817, EH 965592).
- 4.2.7 The only settlement evidence on the eastern slopes of the Cowsic River is located 80m northwest of the southernmost settlement discussed and comprises a hut circle within a fragmented enclosure (SAM 22252, HER 49707, EH 439584) (Fig. 9).
- 4.2.8 Approximately 1km directly south of the site on high ground overlooking the Cowsic and just west of Devil's Tor is the well-known Beardown Man standing stone (SAM 22222, HER 4200). This enigmatic monument commands a prominent position on high ground above the headwaters of the Cowsic River.

A cairn (HER 4217, EH 1064570), located approximately 200m further south, dominates the summit of the ridge east of the Cowsic River (Fig. 7). These dominant monuments form intrinsic components of a complex prehistoric landscape and would have left those that moved and lived within this landscape in little doubt of their importance. They signify how rich and important this landscape was in the Bronze Age.

4.3 *Medieval and post medieval landscape*

- 4.3.1. There is extensive evidence for medieval and post-medieval tin working in the landscape surrounding the restoration site and access route. A significant proportion of archaeological evidence within 1km of the site is associated with streamworking, a method of exploiting river alluvial tin deposits that primarily dates to the medieval period (Fig. 11). This is unsurprising given the site is located in an area between the Cowsic, Walkham and West Dart River heads.
- 4.3.2 Streamworks, the physical evidence for medieval tinning comprises isolated bands of low spoil heaps, may be observed on virtually all of the water courses in this area. Approximately 17ha of streamworks are recorded along the River Tavy and its tributaries, including an area 130m directly north the restoration site (EH 1063510) (Fig. 14). There are also streamworks recorded at the Cowsic Head (EH 1184973) to the south of the restoration area, which are enclosed by tinner's cliffs up to 4.5m high. There is also extensive evidence for streamworks along the headwaters of West Dart River and its tributaries (HER 29142, EH 1050209), 500m to the west. To the southwest of the site unrecorded streamworks are visible along Conies Down Water, a tributary of the Cowsic River, which runs northwest to southeast along the base of Conies Down Tor (Fig. 13).
- 4.3.3 There are a significant number of ruined huts associated with the streamworks that are so prevalent in this landscape. These structures are referred to as 'Tinner's Huts' and their proximity to streamworks, suggests that they were constructed to provide shelter for the tanners though the function of some huts is questionable. In the majority of examples, all that survive of these structures are low rubble walls. Four such hut ruins are recorded to the northwest of the site along the banks of the River Tavy. The remains of a single ruined hut (HER 7730, EH 440658) is located 150m north of the restoration site within streamworks along the banks of the River Tavy. To the west, approximately 300m northwest of the site, are two ruined hut sites (HER 7731, EH 440460). The fourth hut (HER7732, EH 440643), which is located downstream of the other three.
- 4.3.5 The access route traverses a gap within a linear arrangement of tin pits (EH 1065840), orientated broadly east to west, on the ridge to the south of Conies Down (Fig. 13, Plate 4). They are the physical evidence for exploitation of a tin

lode that runs across the top of the ridge from east to west. This type of tin exploitation is common on Dartmoor as lodes generally follow east to west orientation and are referred to as East to West lodes (Newman 2011, 150). A similar arrangement of tin pits is recorded on the eastern side of the Cowsic River, 850m to the northeast. Such methods of tin extraction were occurring on Dartmoor at least by the 15th century (*Ibid.*).

- 4.3.6 The access route traverses the Lich Way on the western side of Conies Down (Fig.s 4-6, Plate 5). This route has its origins in the medieval period and perhaps earlier. The dead were carried along this route from the settlements on the eastern side of the Forest of Dartmoor to be buried at the church in Lydford (Le Messurier 1965, 54).
- 4.3.7 There is extensive evidence for both domestic and industrial peat exploitation in the landscape surrounding the restoration site. The southern end of the access route to site runs to the east of turf ties and drainage ditches on Blackabrook Head and Black Dunghill. There is documentary evidence for domestic peat cutting in the Blackabrook area dating to the late eighteenth century (Newman 2010, 39). John Swete writing in the 1790s observed that the landscape surrounding the farm of 'Old Cator', which he described as being close to Blackabrook Head, was covered with turf ties (*Ibid.*).
- 4.3.8 Newman's research into peat cutting at Blackabrook reveals that industrial peat cutting commenced in 1844. The extensive system of drains visible across Black Dunghill, Holming Beam and the ridge between Black Dunghill and Conies Down are likely to have been cut in the first half of the nineteenth century though it is unclear why such an extensive network of drainage was undertaken. Newman suggests that the motive behind ditching such a large area was unlikely to have been for peat cutting and may be attributed to 'a more general system of improvement associated with the prison enclosures' which were expanding at this time (*Ibid.*, 40). Prison enclosures are present today at Holming Beam.
- 4.3.9 Turf ties are clearly visible on the hillshade images running to the northwest, west and south of Conies Down Tor (Fig.s 12-13). It is likely that the turf ties visible around Conies Down are the result of domestic exploitation though the density of ties visible on the southern slopes of Conies Down may be the result of small scale industrial exploitation. The ties' proximity to the Lich Way, indicates that transportation of peat from this area was possible along a network of trackways running east to west north and south of Blackabrook Head (*Ibid.*, 38). A less dense network of turf ties is visible between Conies Down and Maiden Head. The decrease in turf tie density may be attributed to their distance from established trackways across this part of the moor, which would make transportation of peat a more strenuous task.

4.4 *Palaeoecological Survey*

- 4.4.1. A pre-restoration archaeological and palaeoecological assessment of an area broadly located between Lynch Tor and the West Dart, which included the restoration site at South Tavy Head, was carried out in 2010 and 2011 (Fyfe, Davies & Coombe, 2012). GPR survey was undertaken across the restoration area which informed locations for coring. The survey indicated that the peat at South Tavy Head was up to 7.28m in depth, with an average depth of 3.23m (*Ibid.*, 11). Cores taken and dated from transects 11 and 23, which traverses the southern and northern sides of the site respectively, indicate that peat initiation started as early as 8448-8371 years BP (Before Present) and the most recent dates range from 4817-4530 years BP (Fig. 15) (*Ibid.*, 16-17).
- 4.4.2 The GPR data indicates that the peat either side the large depression to the north of the site measures between 3m and 7m in depth. The depression itself drains into the River Tavy and appears to have approximately 0.50m of peat remaining at its southern end (*Ibid.*). Given the depth of peat either side of this area it may be suggested that peat was extracted from this area at some time in the past. There is extensive evidence for streamworks to the north along the River Tavy so any disturbance is likely to be related in some way to the tin extraction along the Tavy.

5 **Results of the Walkover Survey**

5.1 *Access Route*

- 5.1.1 The access route to the restoration area was subject to an archaeological walkover survey on 3rd June and 4th July 2013, in advance of restoration works. A 10m corridor either side of the route was examined for recorded and unknown archaeological features. The following features were identified along or in proximity to the access route.
- 5.1.2. The access route traverses an alignment of tin pits (EH 1065840) on the ridge, north of Black Dunghill and south of Conies Down (see Plate 1). As discussed above, the pits are the result of the exploitation of a tin lode that runs across the top of the ridge from east to west. The English Heritage Survey recorded the average diameter and depth of the pits as 5m and 1m, respectively. This feature is believed to date to the post-medieval period.
- 5.1.3 The access route traverses the Lich Way 60m west of the Conies Down stone row, on the lower western slopes of Conies Down. At this point the Lich Way is clearly visible as a level linear feature along the south and western side of Conies Down (Plate 2).

5.1.4 The route traverses areas of peat cutting from the northern slopes of the ridge to the south of Conies Down, up the southern slope of Conies Down towards Maiden Hill (Fig. 12-13).

5.2 *Restoration Area*

There are no recorded monuments within the restoration area and no new features were identified during field survey. Restoration work will be carried out on an area of high quality bog. It will involve some disturbance to the uppermost 0.80m of peat and will therefore impact upon relatively recently formed peat. However, the possibility remains that archaeological remains survive within the peat on the site and may be impacted upon by restoration work.

6 **Impacts**

6.1 The access route was carefully selected to avoid impacting archaeological features, wherever possible. The route was subject to a walkover survey and no previously unknown archaeological remains were identified along the route. The route traverses an area of tin pits on the ridge to the south of Conies Down. It does not impact upon this feature but runs across a level area between pits. It is necessary to traverse the Lich Way but the contractor will be instructed to cross this area with caution so not to as disturb the ground in this area.

6.2 The restoration work will not impact on any previously recorded archaeological features. Restoration work will be carried out on an area of high quality bog. It will involve some disturbance to the uppermost 1m of peat and will therefore impact upon relatively recently formed peat. However, the possibility remains that archaeological remains survive within the peat on the site.

7 **Proposed Mitigation Measures**

7.1 In order to mitigate the possibility of disturbing previously unknown archaeological remains, within the peat, on the restoration site and along the access routes to and from the site, groundworks associated with the restoration work will be subject to a part-time archaeological watching brief which will be undertaken out by the Dartmoor Mires Historic Environment Officer. Any archaeological remains uncovered during the course of restoration works will be recorded as agreed in the Archaeological Method Statement for Flat Tor Pan (Broad Down).

8 Bibliography

Butler, J. 1991 *Atlas of Dartmoor Antiquities*. Volume Two – The North. Exeter, Devon Books.

Crossing, W. 1912 *Crossing's Guide to Dartmoor* (1981 repr.). David & Charles, Newton Abbot.

Fleming A. 1988 *The Dartmoor Reaves. Investigating Prehistoric Land Divisions*. London, Batsford Ltd.

Fyfe, R. Woodbridge, J & Rowe, J. , I. 2010 'Archaeological and palaeoecological survey at Hangingstone Hill, Winney's Down and Broad Down, Dartmoor'. Available at <http://www.dartmoor.gov.uk/lookingafter/laf-naturalenv/dartmoormiresproject/mires-historic-env>

Fyfe, R. Davies, H & Coombe, R., 2012 'Dartmoor Restoration Project: Archaeological and Palaeoecological Survey 2010-11'. Available at <http://www.dartmoor.gov.uk/lookingafter/laf-naturalenv/dartmoormiresproject/mires-historic-env>

Hemery, E 1983 *High Dartmoor: Land and People*. London, Robert Hale.

Newman, P. 1998 *The Dartmoor Tin Industry: A Field Guide*. Newton Abbot, Chercombe Press.

Newman, P. 2010 *Domestic and Industrial Peat Cutting on North-Western Dartmoor, Devonshire: An Archaeological and historical investigation*. Available at <http://www.dartmoor.gov.uk/lookingafter/laf-naturalenv/dartmoormiresproject/mires-historic-env>

9 Figures

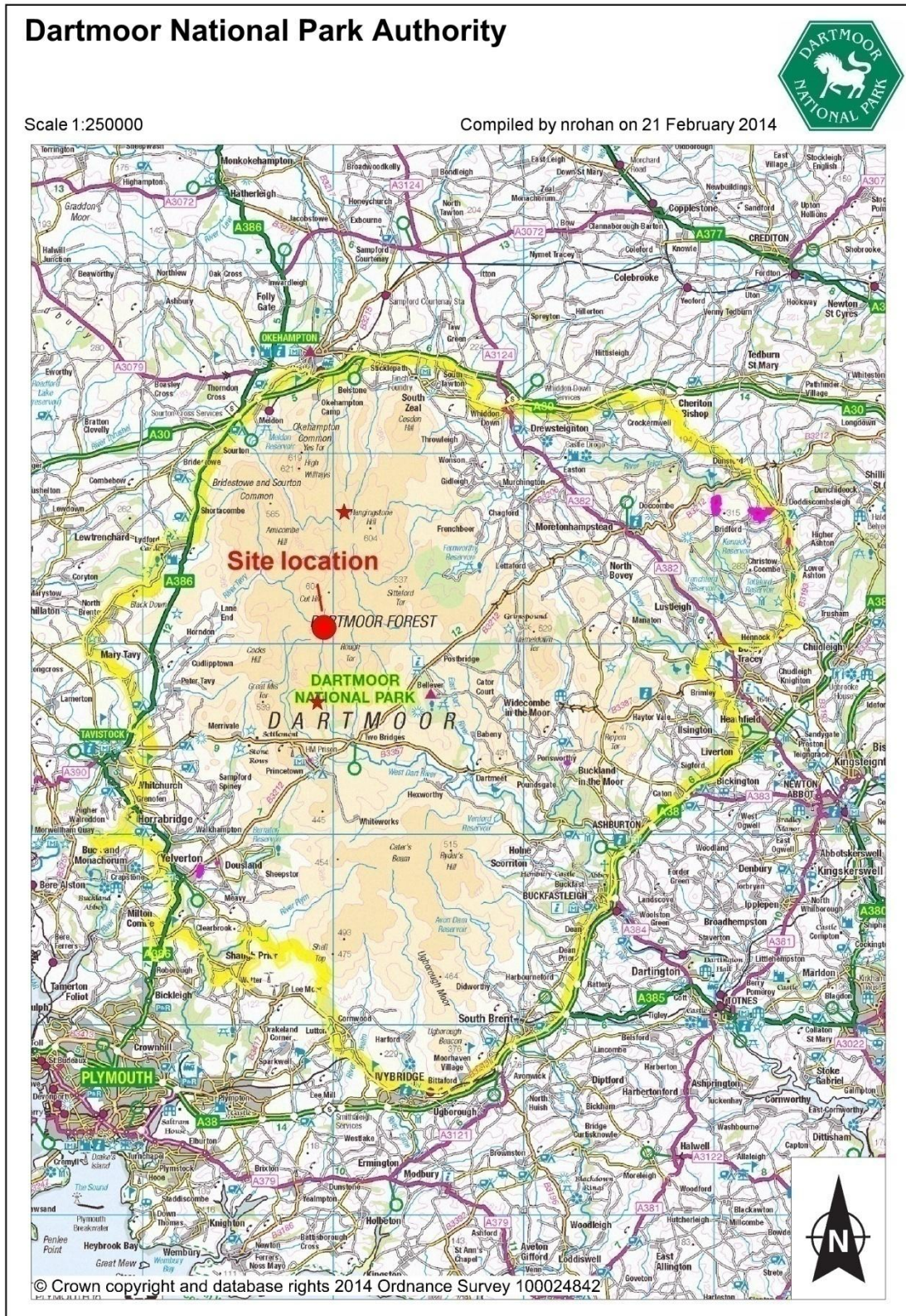


Figure 1 Site location within Dartmoor National Park.

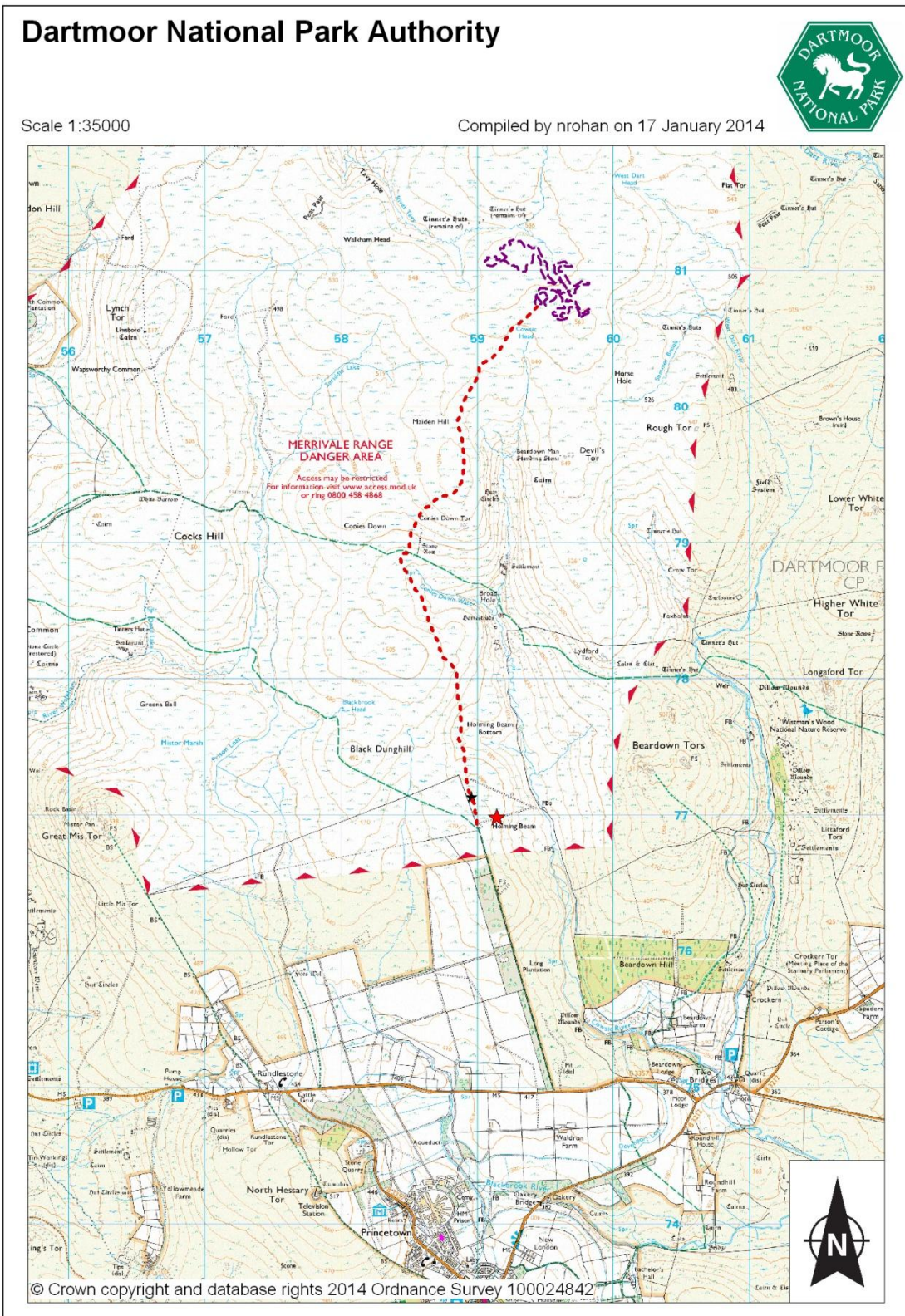


Figure 2 Site location and access route.

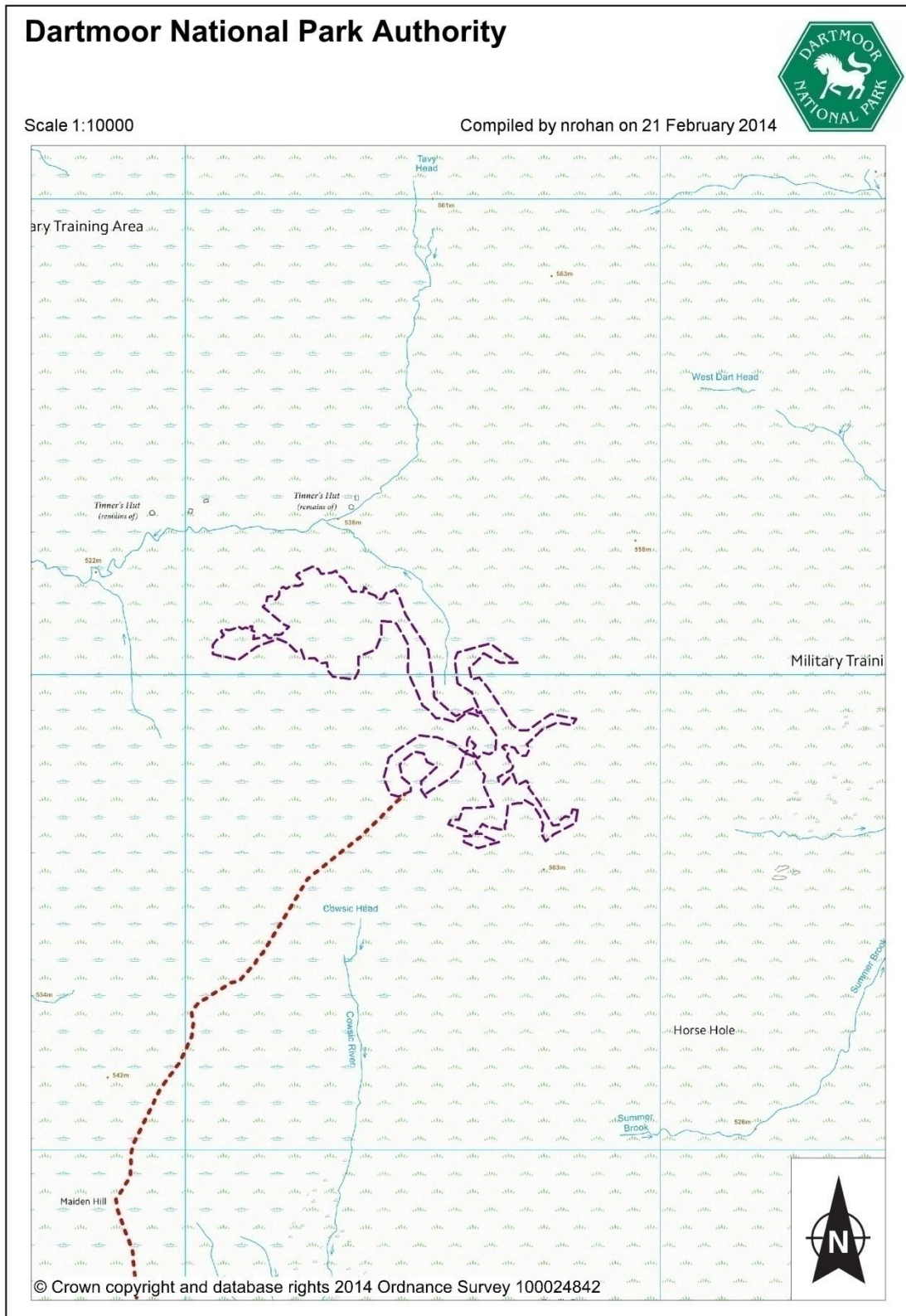


Figure 3 Outline of restoration blocked area.

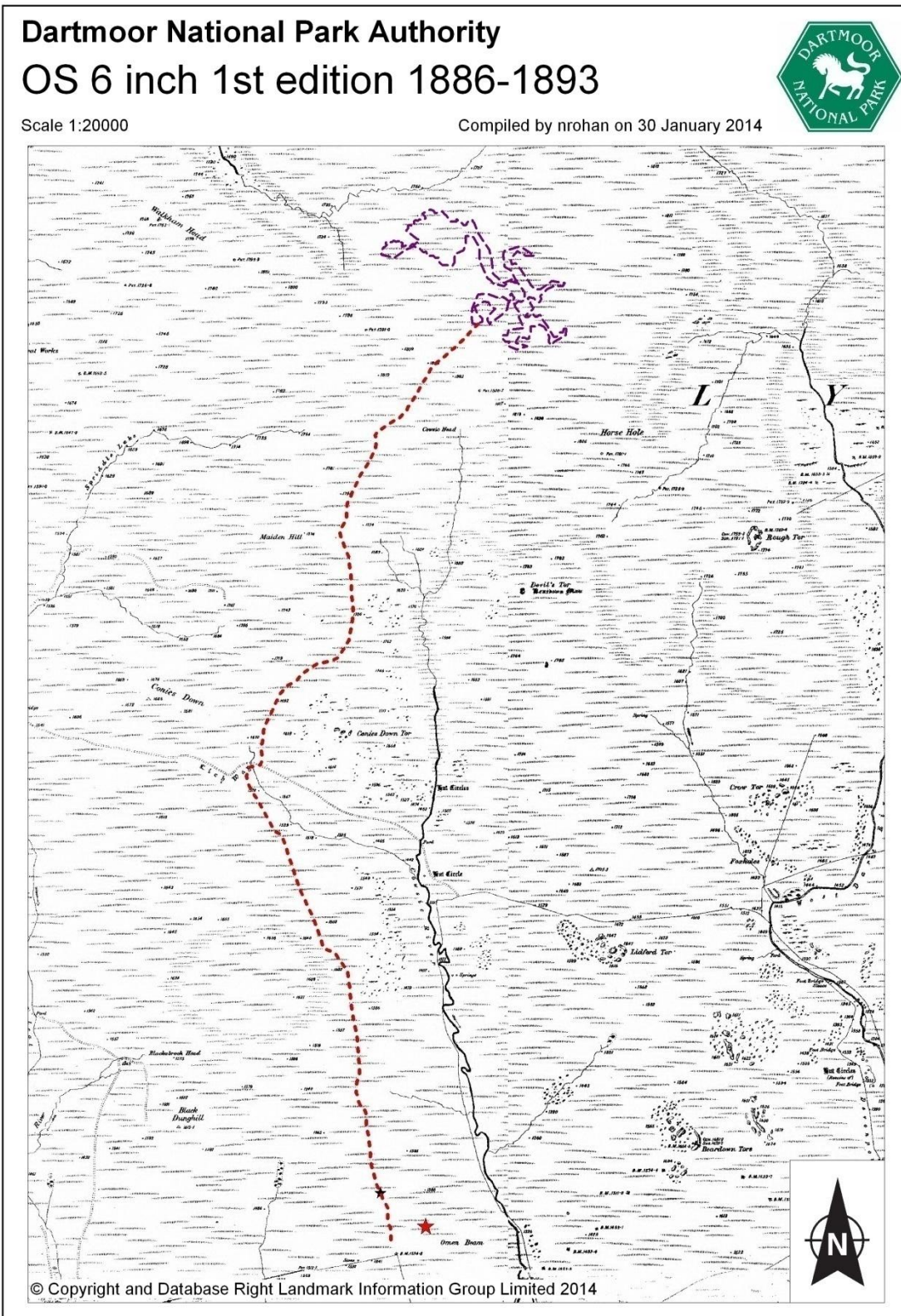


Figure 4 Site outline and access route shown on 1st Edition Ordnance Survey Map (1886-1893).

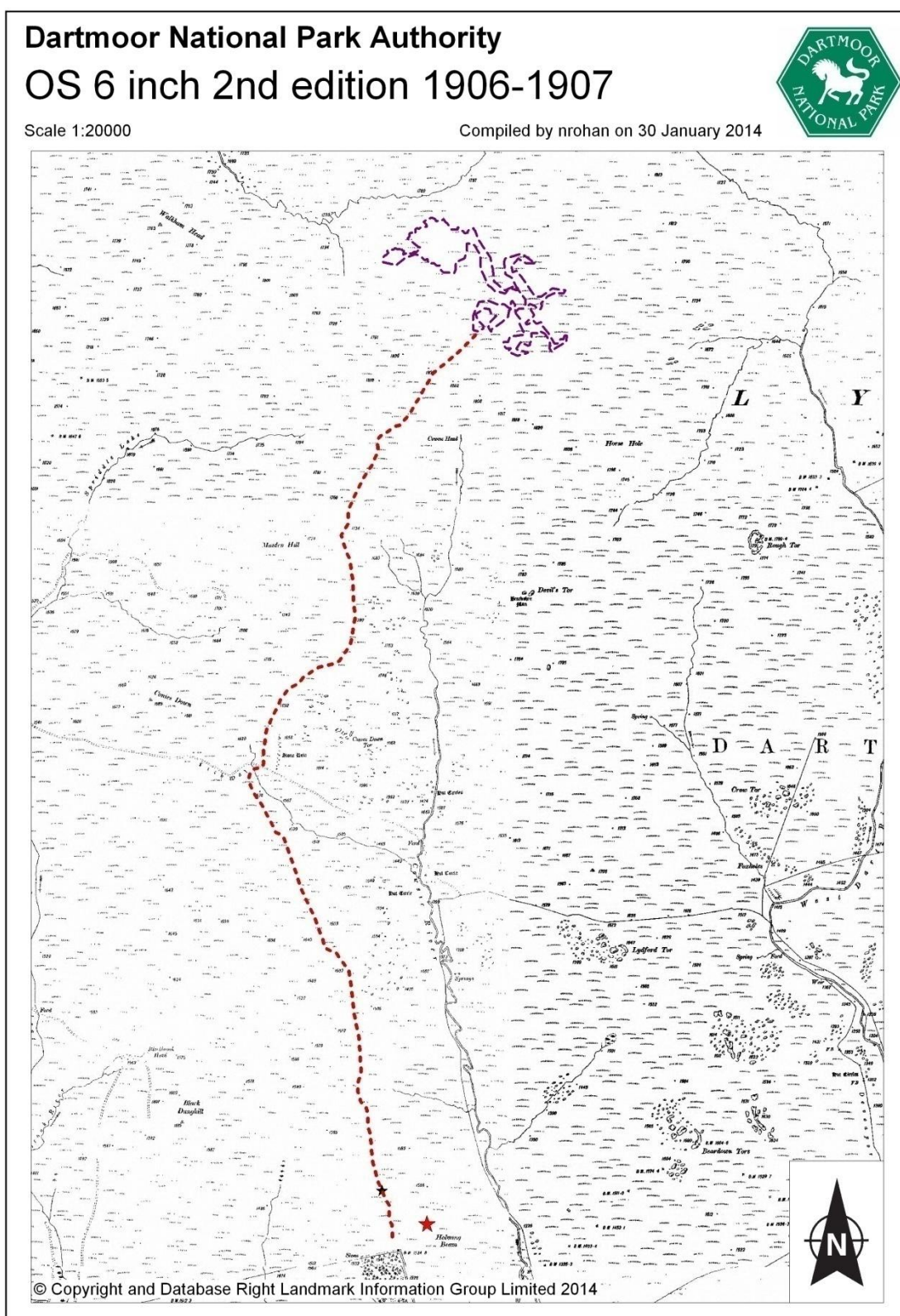


Figure 5 Site outline and access route on 2nd Edition Ordnance Survey Map (1096-1907).

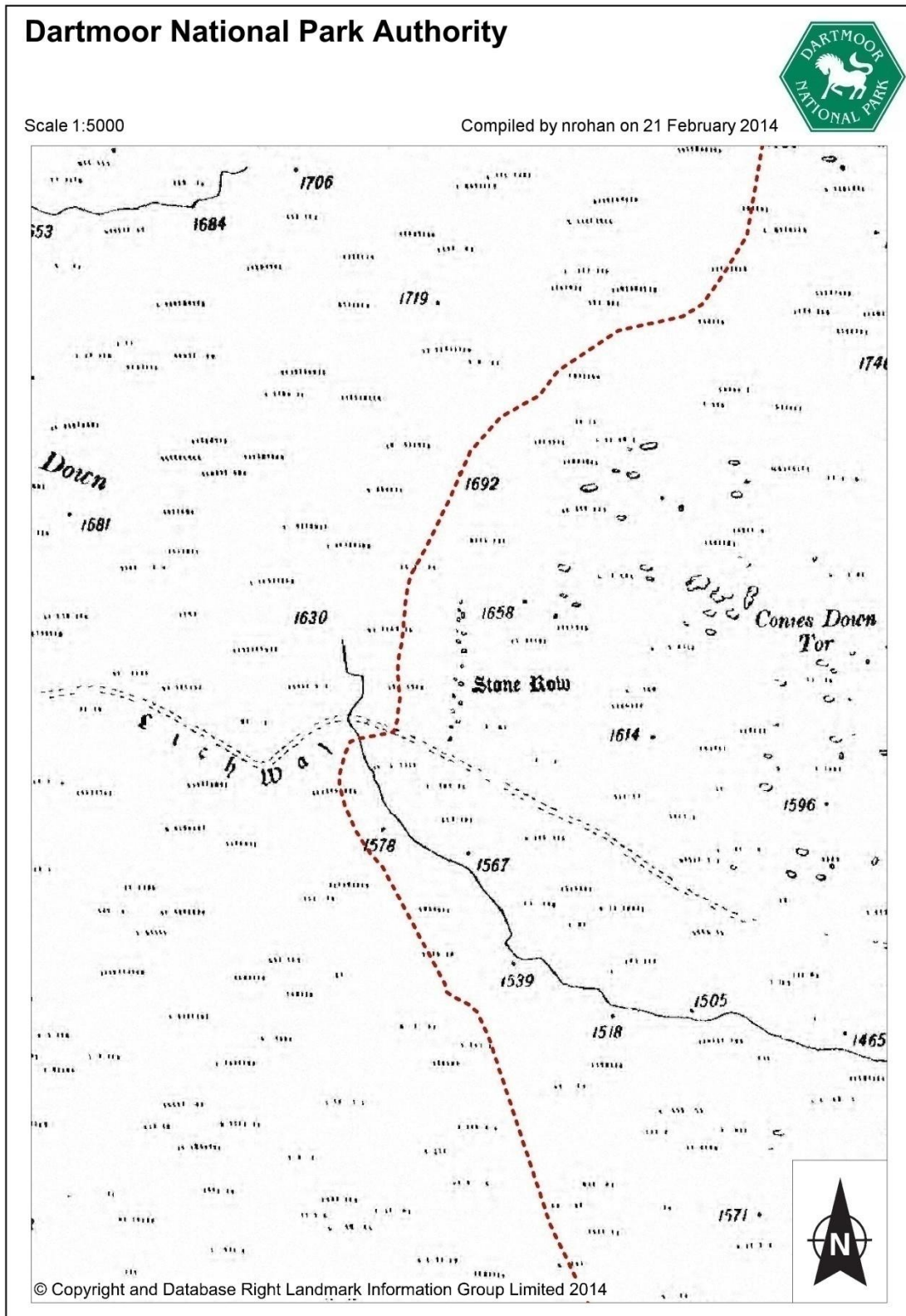


Figure 6 Access route shown on 2nd Edition Ordnance Survey Map (1906-1907) depicting the Lich Way and Conies Down Stone Row.

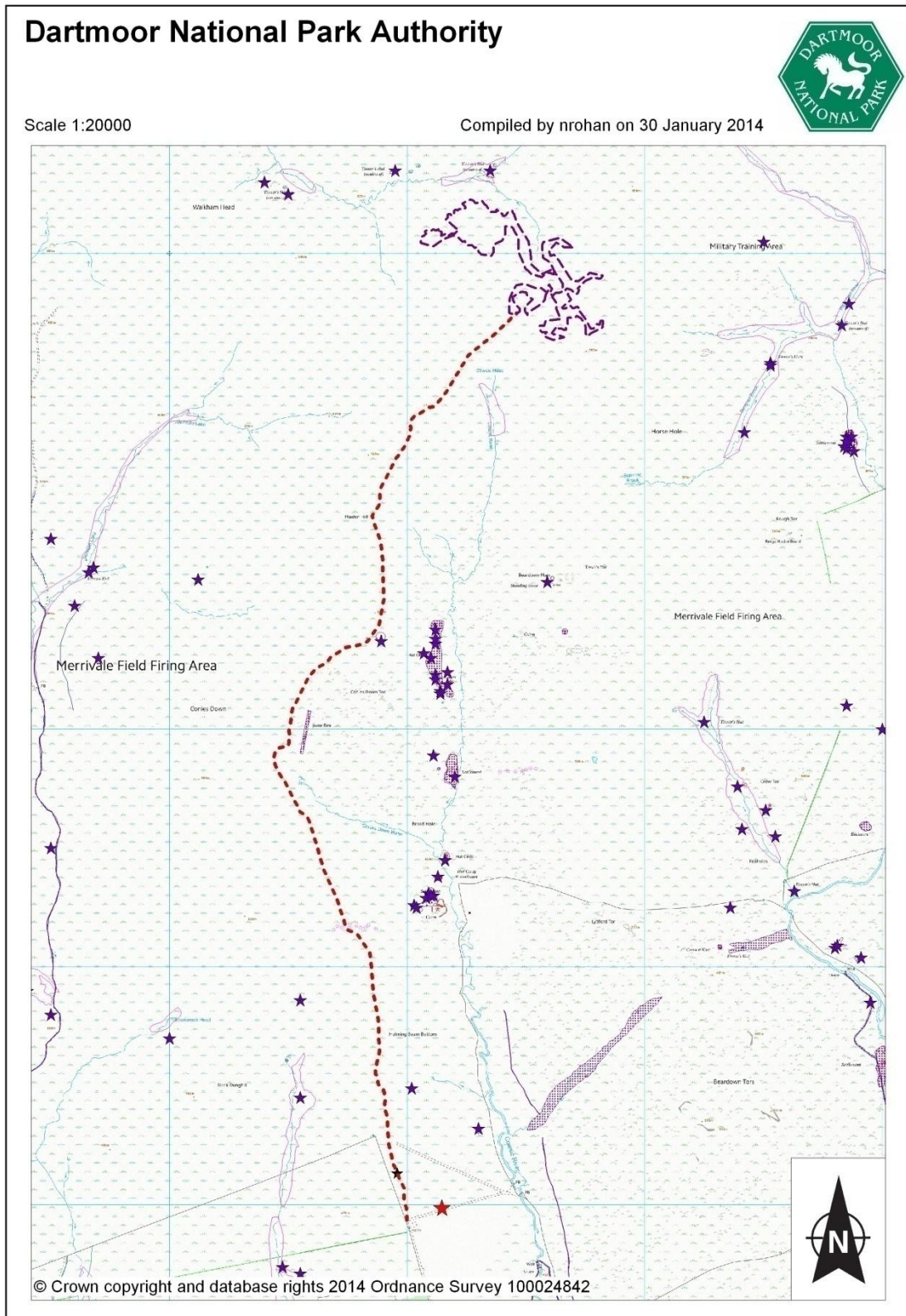


Figure 7 Scheduled Monuments (SAMs), HERs (with MDV prefix) and EH Field Survey sites within approximately 1km radius of the restoration site and access route.

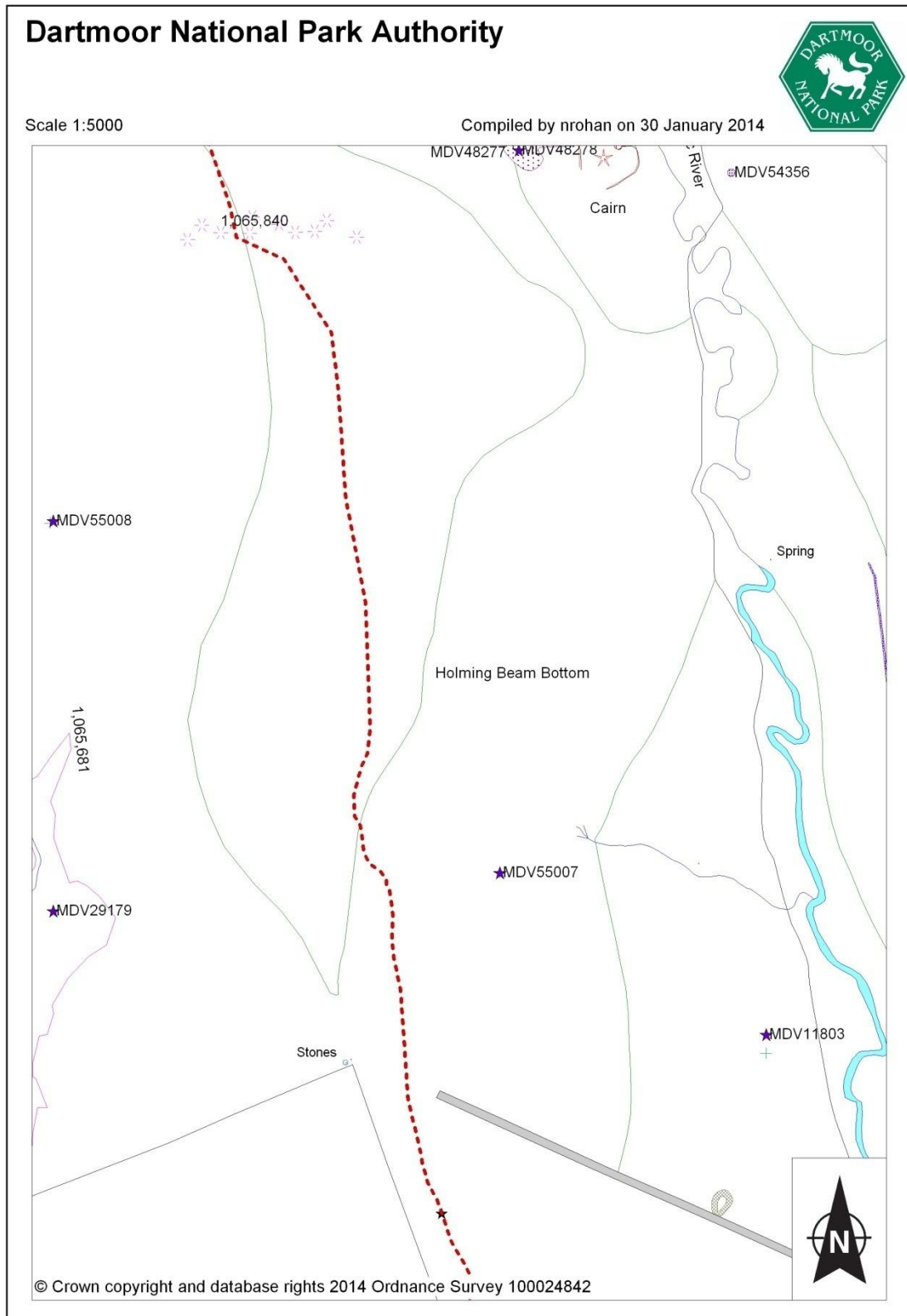


Figure 8 Southern end of access route showing SAMs (within shaded areas),HERs and EH Industrial (pink) and prehistoric (red) areas.

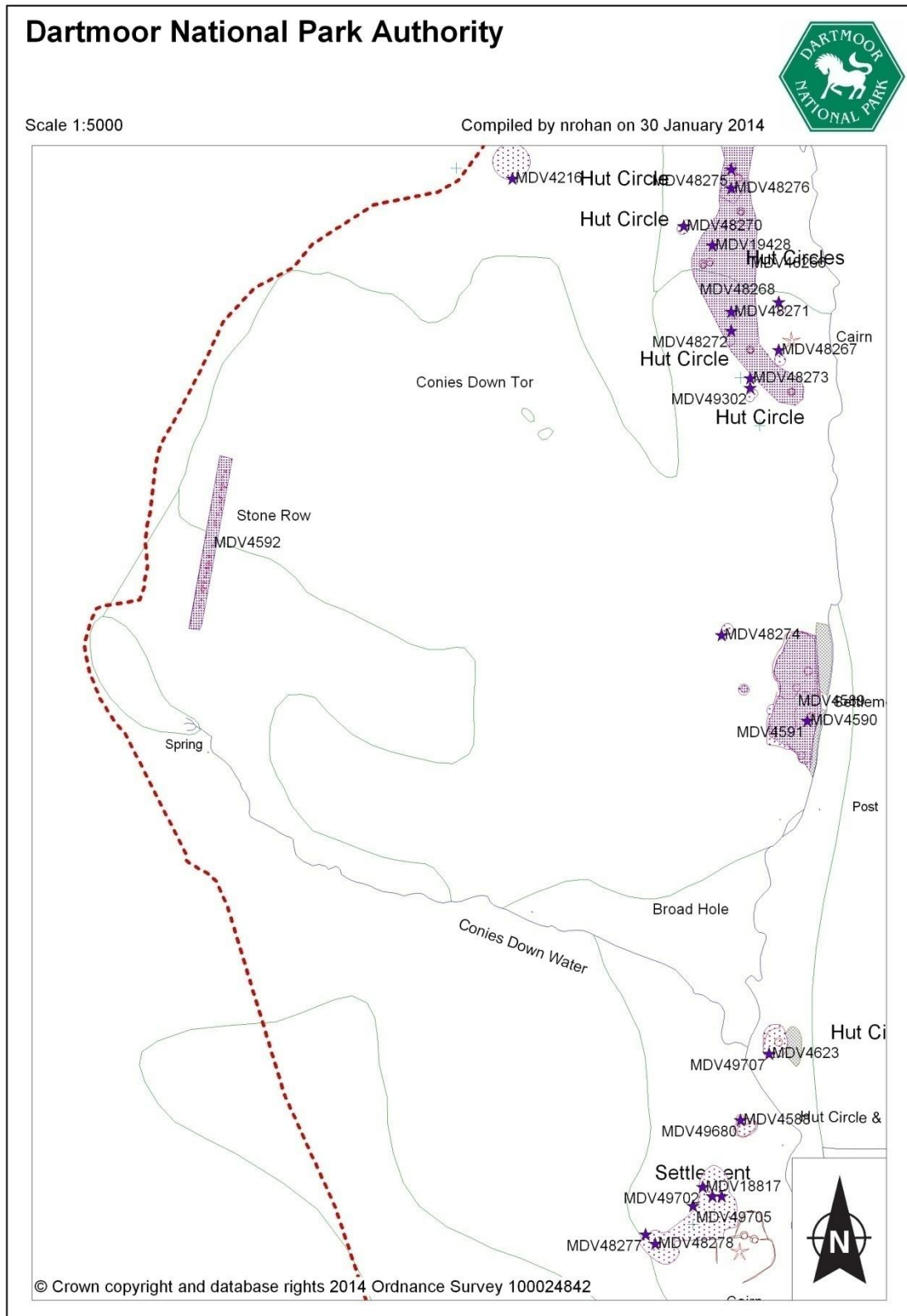


Figure 9 Access route in proximity to Conies Down Tor showing SAMs (shaded areas), HERs and EH Prehistoric areas (red).

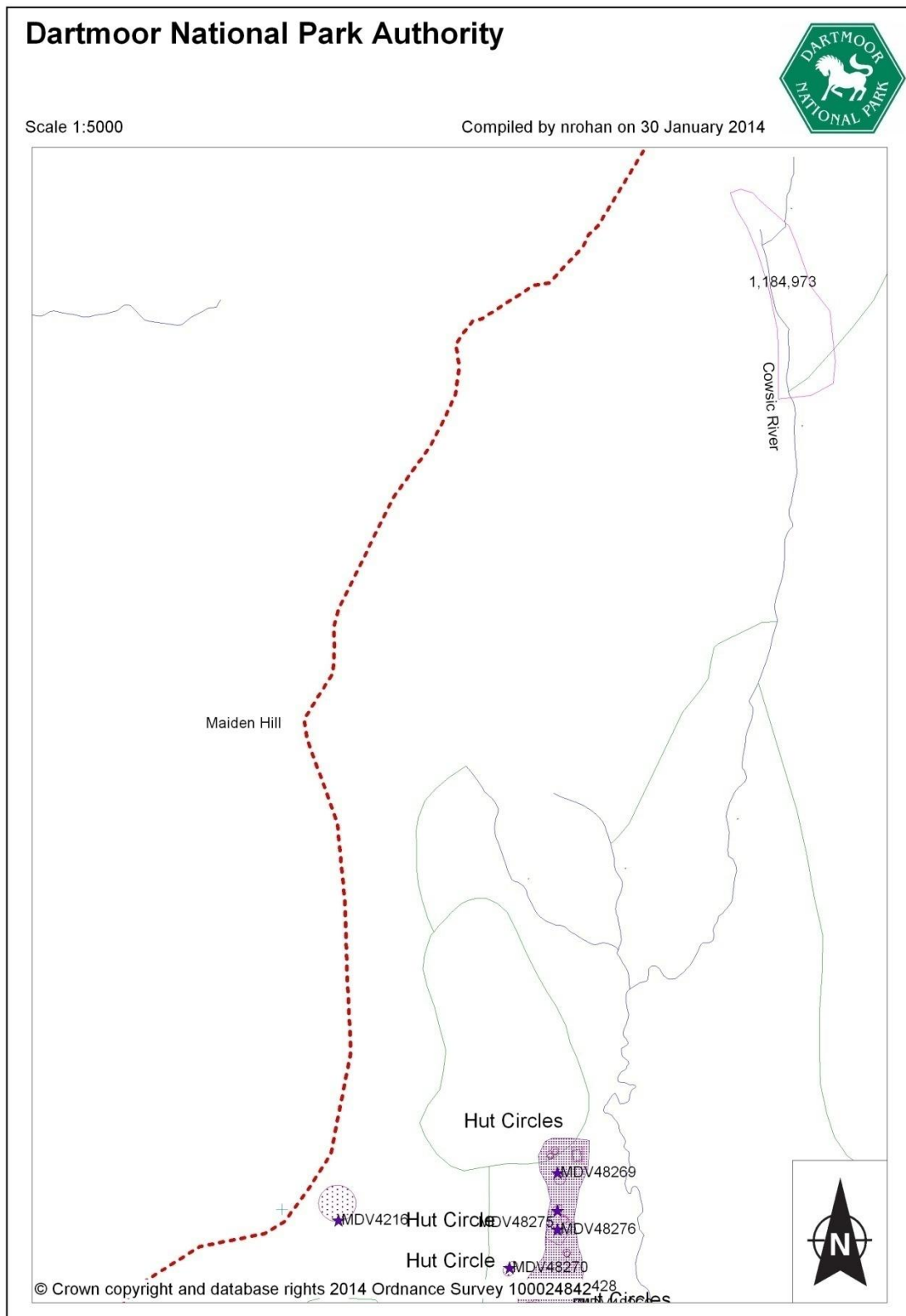


Figure 10 Access route traversing Maiden Hill showing SAMs (shaded areas) HERs and EH Prehistoric (red) and Industrial (pink) areas.

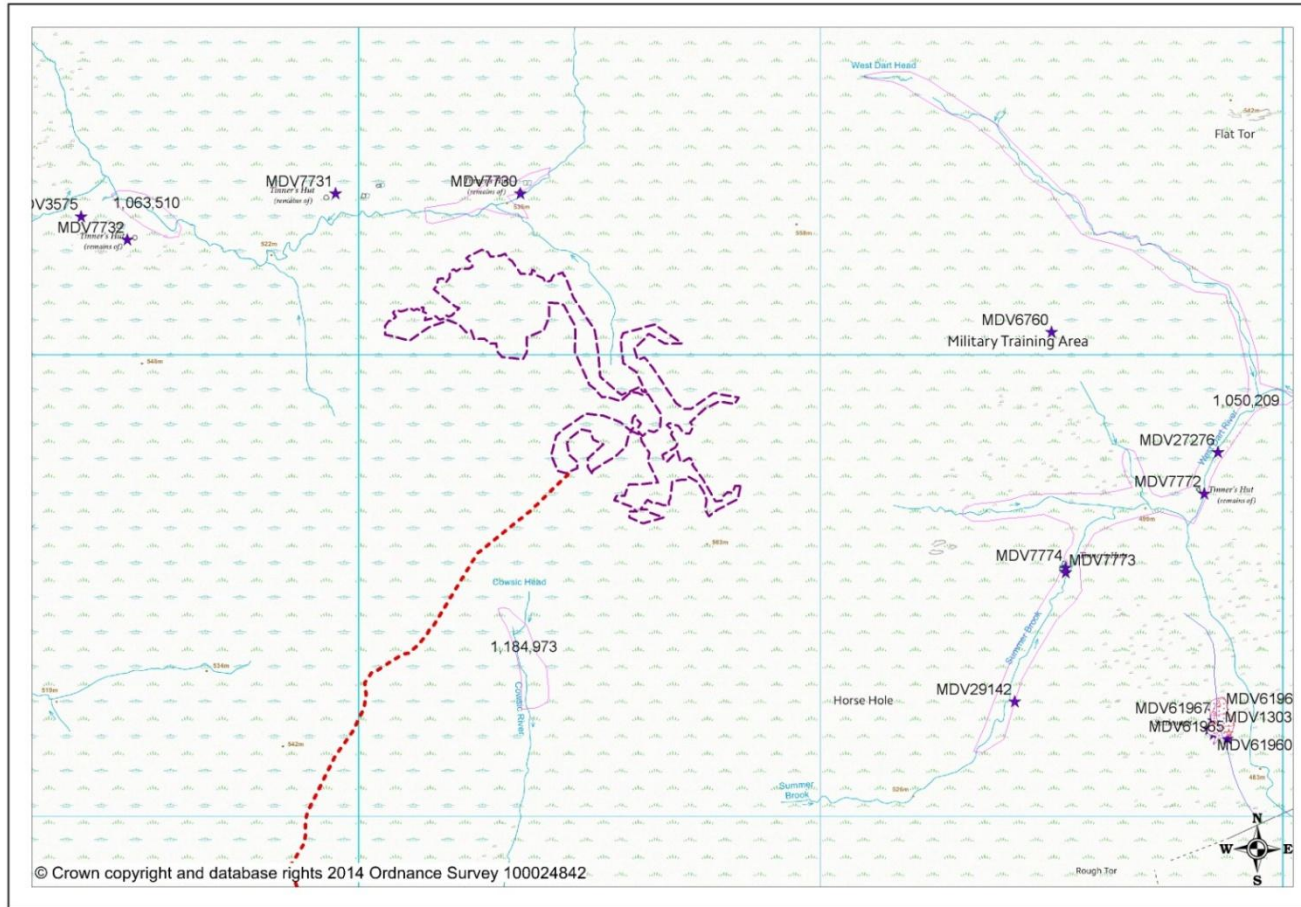


Figure 11 Restoration area and northern end of access route showing SAMs (shaded areas) HERs and EH Industrial (pink) areas.

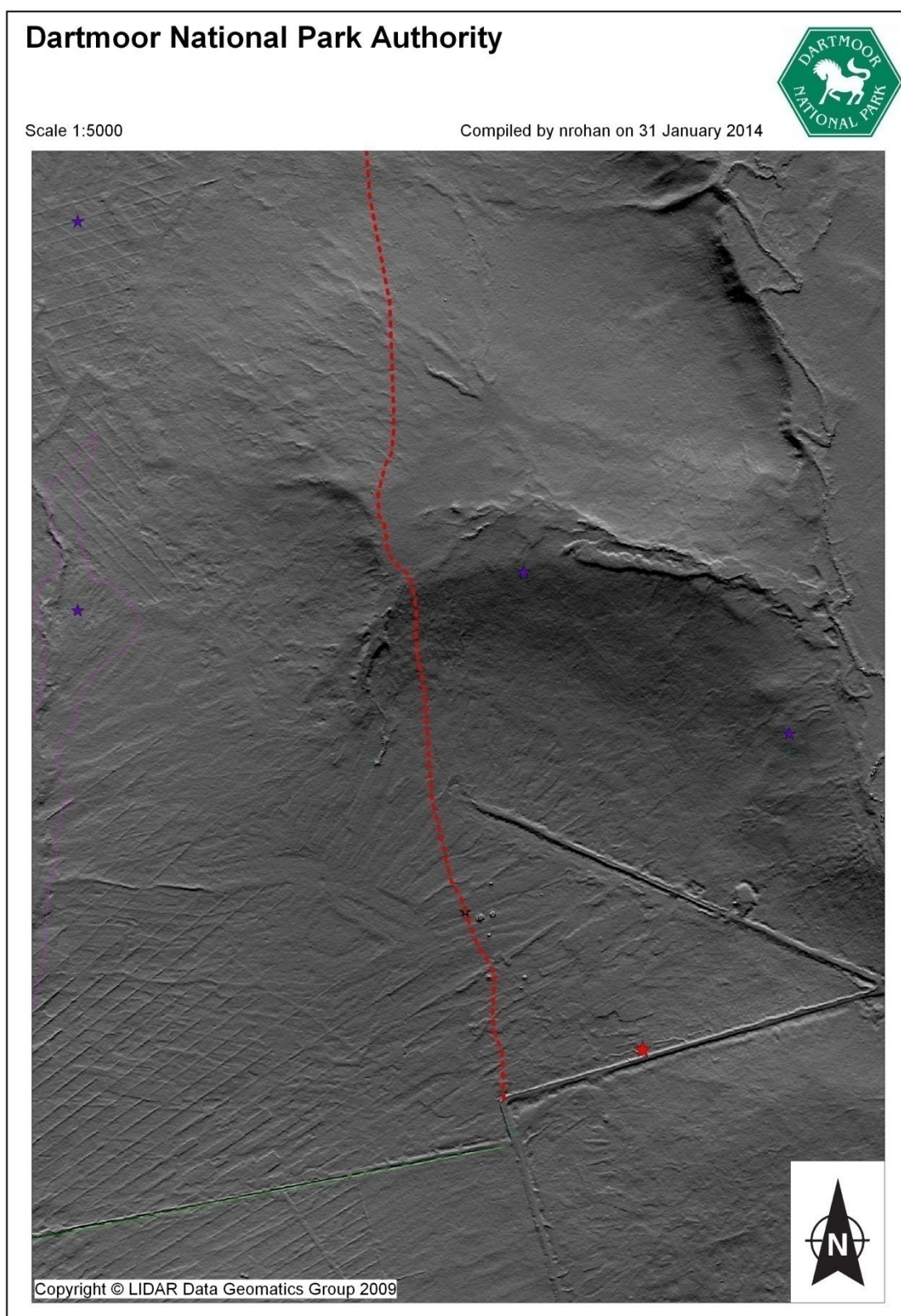


Figure 12 LiDAR hillshade image of southern end of access route showing HERs (purple stars) and English Heritage Survey Industrial (pink) and post medieval (green). Note regular pattern of drainage ditches and peat cutting.

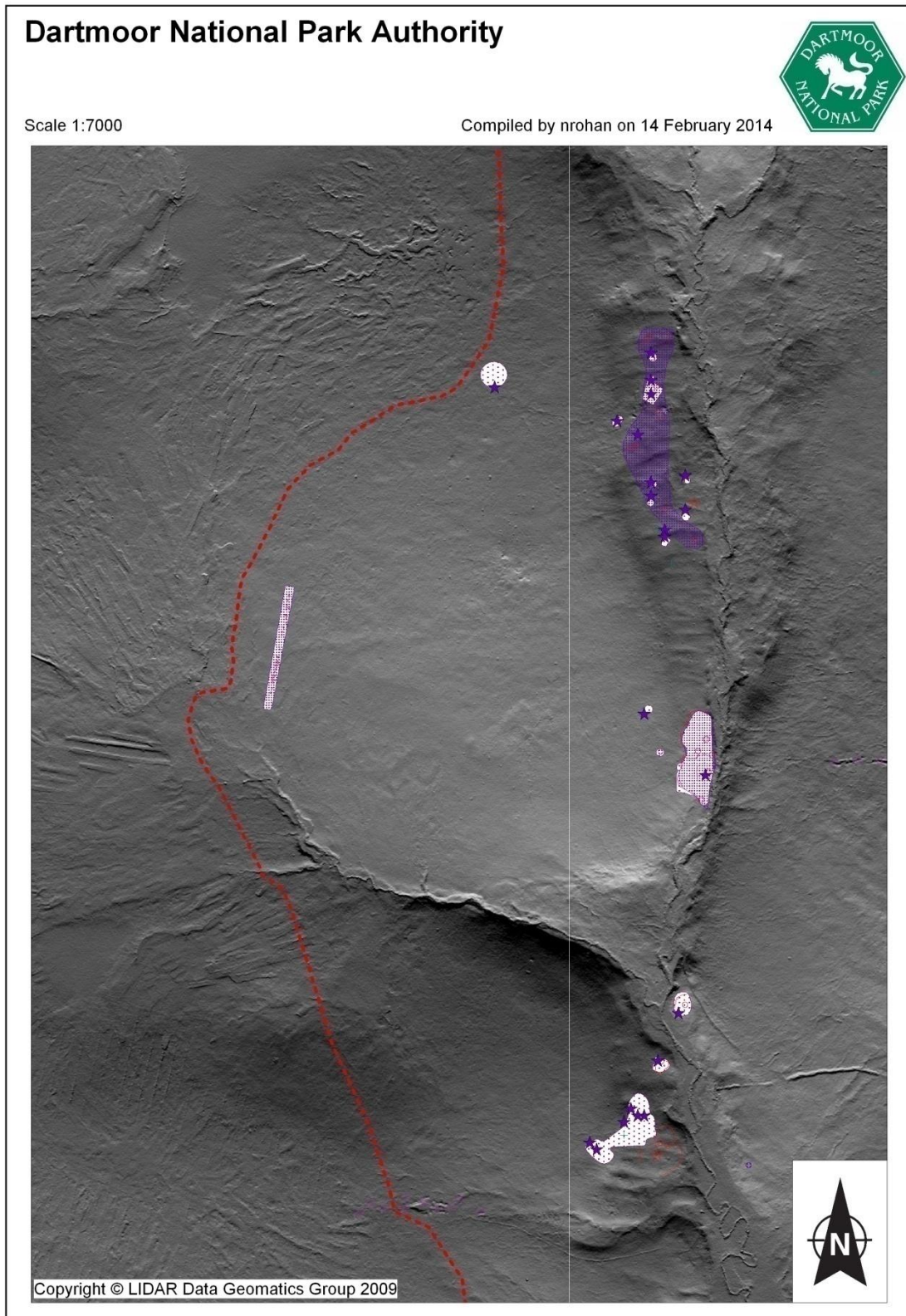


Figure 13 LiDAR hillshade image showing access route and monuments. Note peat cutting visible immediately left of access route.

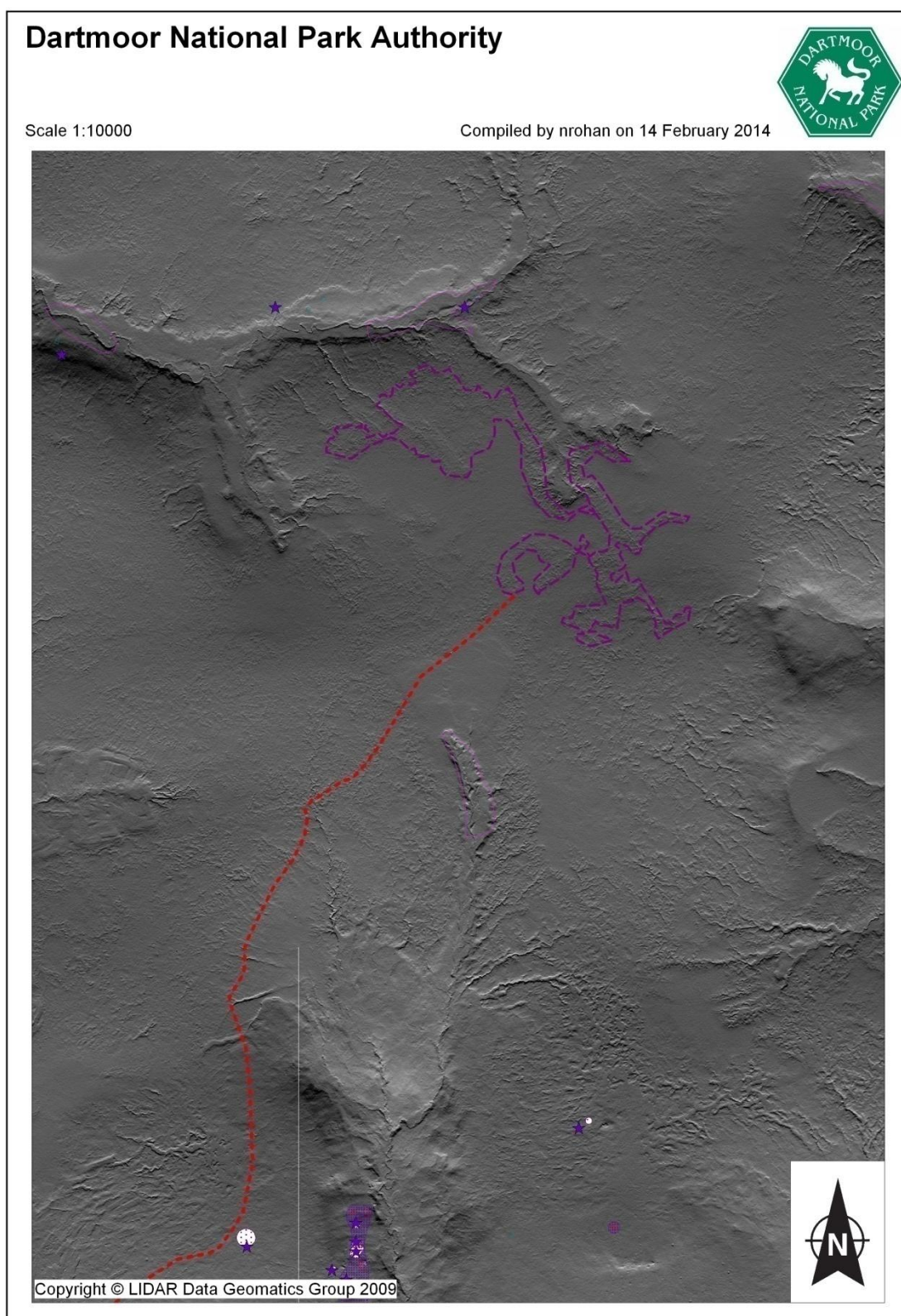


Figure 14 Northern end of access route and restoration area on LiDAR hillshade image.

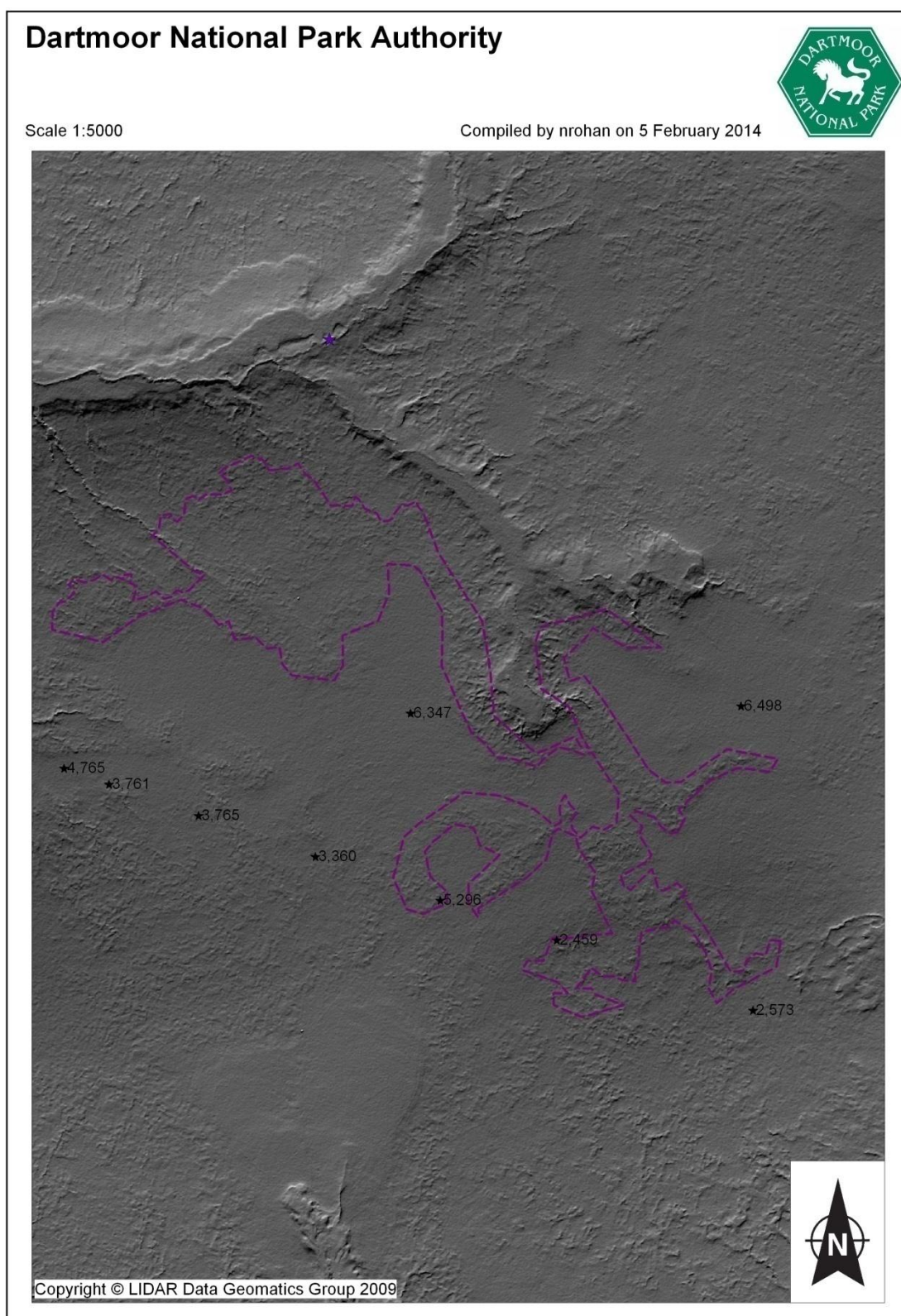


Figure 15 Location of dated cores from 2010/2011 Archaeological and Palaeoecological Survey, showing calibrated age BC.

10 Plates



Plate 1 Tin pits along the access route, looking east towards Lydford and Beardown Tors.



Plate 2 Lich Way looking southeast with Conies Down Tor in top left corner.



Plate 3 Restoration site from southwest corner, looking northwest.



Plate 4 Restoration site from south, looking north towards Cut Hill.



Plate 5 Depression with tributary of River Tavy that flows from the northern end of the site, looking south.