

Miners' Dry, South Wheal Frances,
Piece, Cornwall
Historic Building Record



Cornwall Archaeological Unit

Report No: 2022R010

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The Project Manager was Jo Sturgess

Fieldwork was undertaken by Connor Motley and Jo Sturgess

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration:

South elevation, east end.

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Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
HE	Historic England
HER	Cornwall and the Isles of Scilly Historic Environment Record
NGR	National Grid Reference
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey

1 Summary

Cornwall Archaeological Unit was commissioned by Jon Walters, Cormac Solutions Ltd acting on behalf of Donald Martin (Countryside Team Leader, Cornwall Council) to carry out a historic building record prior to and following the repair of a Grade II Listed miners' dry at South Wheal Frances near Piece, Carnkie. The building is located at NGR SW 68106 39337 within the South Wheal Frances complex.

Conditional Listed Building Consent for the repair of the Grade II Listed Building (LBC Application Number PA20/09145) has now been granted. Condition 3 of the Listed Building Consent required a programme of archaeological work to be undertaken which comprised a historic building record to be made of the building both before and after the completion of the repair works. The historic building record (equivalent to a Historic England level 2/3 building survey) has been undertaken as a mitigation measure for the impacts of the repair works on the Listed Building.

The building is part of the Marriott's Shaft complex at South Wheal Frances and was constructed in 1908 as part of Bassett Mines Ltd. It was originally designed to house washing, drying and changing facilities as well as crib/croust rooms and/or office space and storage to serve the miners at the Marriott's Shaft complex. When first constructed the dry was described as 'second to none in the county'. Its use as a miners' dry was short-lived since the mine ceased operations in 1918. The building stood empty and roofless for several decades before it was reused for the manufacture and storage of concrete blocks and other concrete products between 1953 and 1974. A total of four construction phases have been identified as a result of this study.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Fig 1 Location Map.

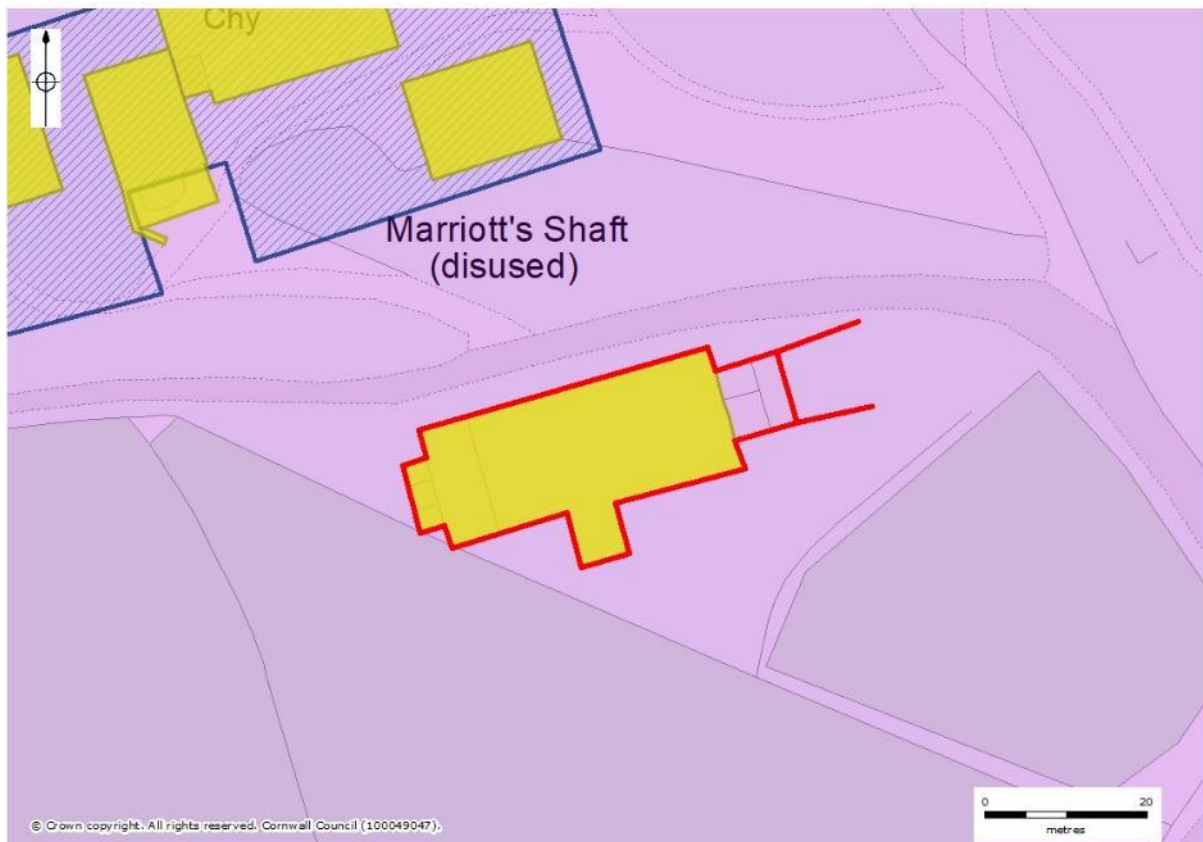


Fig 2 Site location. The extent of the Miners' dry is outlined in red; Listed Buildings are shaded yellow; Scheduled Monuments are hatched in blue and the World Heritage Site shaded purple.

2 Introduction

2.1 Project background

The miners' dry at South Wheal Frances was last used as such in 1908. Following the closure of the mine, the interior of the building along with its steam pipes and upper floors was stripped out and the roofs were removed leaving its walls open to the elements (Fig 6). The site of South Wheal Frances mine is now owned by Cornwall Council, and having undergone a phase of major landscaping in the 1990s, it is in use as a public amenity space for people to freely explore the redundant mine buildings.

Due to concerns about failing structural elements of various mine buildings across several Council owned mine sites, a project has been set up to undertake remedial works to buildings where necessary in order to ensure their future stability.

The miners' dry at South Wheal Frances has been included as part of this project as several failing structural elements were identified here.

As part of the conditional Listed Building Consent which has been approved for the remedial works (application number PA20/09145) a Condition for historic building recording was set out.

Condition 3 is as follows:

A) No works shall take place until a programme of historic building recording including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions, and:

- 1. The programme and methodology of site investigation and recording*
- 2. The programme for post investigation assessment*
- 3. Provision to be made for analysis of the site investigation and recording*
- 4. Provision to be made for publication and dissemination of the analysis and records of the site investigation*
- 5. Provision to be made for archive deposition of the analysis and records of the site investigation*
- 6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation*

B) No works shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The historic building recording condition will normally only be discharged when all elements of the WSI including on site works, analysis, report, publication (where applicable) and archive work has been completed.

Reason: To safeguard the historic significance of the site in accordance with the aims and intentions of Policy 24 of the Cornwall Local Plan Strategic Policies 2010 - 2030 and paragraph 199 of the NPPF (2019).

A pre-commencement condition is necessary in this instance due to the need to ensure that a programme and methodology of site investigation and recording of historical features is undertaken before physical works commence on site. This is in accordance with the provisions of NPPF (2019) Chapter 16, paragraph 199 and Policy 24 of the Cornwall Local Plan Strategic Policies 2010–2030

Cornwall Archaeological Unit were commissioned to undertake the historic building record by Jon Walters (Cormac Solutions Ltd) on behalf of Donald Martin (Countryside Team Leader, Cornwall Council). The requirements for the historic building record, which is equivalent to a Historic England level 2/3 building survey, were determined by Peter Dudley, Senior Development Officer (Historic Environment Planning, Cornwall Council) and are outlined in the Written Scheme of Investigation (WSI) prepared by CAU (Appendix 2).

2.2 Aims

The principal aim of the study was to create a detailed record of the building prior to alterations and also to create a record after the completion of the remedial works.

The objectives were to:

- Produce an accurate record of the building along with its fabric, fixtures and fittings (Level 2 or 3 as appropriate and as defined by Historic England 2016).
- Create a phased historic development for the building.
- Produce a record of the completed repairs.

2.3 Methods

All recording work was undertaken according to Chartered Institute for Archaeologists (CIfA) (CIfA 2014) and Historic England (2016) guidance.

2.3.1 Desk-based assessment

During the desk-based assessment historical databases and archives were consulted in order to obtain information about the history of the site and miners' dry. The main sources consulted were as follows:

- Cornwall HER (via Heritage Gateway)
- Images of England online listed buildings database.
- Early maps and photographs (see Section 9.1).
- Published histories (see Section 9.2).
- Websites (see Section 9.3).

2.3.2 Fieldwork

A historic building record (equivalent to a Historic England level 2/3 survey) was undertaken prior to the repair works.

- A measured ground floor plan of the building was created as far as Health and Safety requirements permitted. Measured detail was added to the plan along with annotations to provide details of both historic development and fabric.
- Colour photographs of all exterior elevations and interior room spaces along with architectural details were taken with a digital camera (at a resolution of 10 million pixels or higher). These along with the post-works photographs form the photographic archive. Photographs included a metric scale bar, except where Health and Safety considerations made this impractical. Particular focus was given to the areas of alterations/repairs.
- Descriptions of the exterior and interior were made in note form and by annotation of the plan to record their fabric and construction, phased development through time and architectural details. The interior was described room by room. Particular attention was given to recording the areas of alterations/repairs.
- A record was also made of the building following the completion of the repair works. This included a photographic record of the areas which have undergone repairs along with descriptions of materials, methods and styles used.

2.3.3 Post-fieldwork

All site materials were prepared for long term storage. This included:

- Finalisation of measured drawing.
- Archiving of drawings, photographs, paperwork and digital files.
- Filing of digital colour photographs and limited image editing (eg, composition, lighting) where appropriate.
- Creation of an archive report.

- Completion of the Historic England OASIS record (online access to archaeological investigations).
- Preparation of CAU archive.

A catalogue of the photographs is given in Appendix 1 and a photographic direction plan is reproduced as Figure 86.

3 Location and setting

South Wheal Frances is a disused tin and copper mine located along the Great Flat Lode to the south of Piece and east of Treskillard. It lies within the Camborne and Redruth mining district of the World Heritage Site for Cornish mining. The miners' dry is located to the south of the other mine buildings associated with Marriott's Shaft at NGR SW 68110 39335 (Figs 1 and 2).

The building lies at the bottom of a north facing slope within a shallow valley to the south of Carn Brea. It forms the southern extent of the Marriott's Shaft complex and is overlooked by the rest of the designated mine buildings associated with Marriott's Shaft to the north which date from the 1890s and 1900s. The Miners' dry is built in the same architectural style as the other buildings centred on Marriott's Shaft. The interior and exterior wall surfaces have areas of dense ivy covering them, and although many of the floor surfaces are now grassed, brambles and saplings have become established in some of the room spaces and around the external walls.

Geologically the underlying bedrock at South Wheal Frances comprises Carboniferous course-grained granite and Devonian Mylor slate formation (bgs.ac.uk). The building is located at a height of 174m OD.

4 Designations

The miners' dry at South Wheal Frances is a Grade II Listed Building (List Entry Number: 1160710). The Listing description is as follows:

'Miners' changing room or "dry" at former tin mine, now derelict. 1908, for Basset Mines Ltd., altered and now very dilapidated. Uncoursed rubble with granite quoins, brick arches to openings; now roofless. Large rectangular plan on east-west axis, with short wing on south side. One storey; right-hand end of front wall collapsed, and several of remaining front windows damaged; original doorway not detectable. History: when built as new changing rooms during general improvements to this mine, it was described as "second to none in the county". Reference: Palmer & Neaverson op.cit. Part of a very impressive group of remains of one of the best equipped mines in Cornwall, closed in 1918; included for group value.'

The building is located within the Camborne and Redruth mining district of the World Heritage Site for Cornish Mining and lies 25m to the south of the rest of the Marriott's Shaft mine complex which is designated as a Scheduled Monument (List Entry Number:1005441) and includes five Grade II Listed Buildings. The building and complex around Marriott's Shaft also lies within an Area of Great Landscape Value.

5 Site history

Marriott's Shaft forms part of South Wheal Frances mine lying between Treskillard and Piece. Originally worked for copper, the mine probably dates from the 18th century, although it is first documented in 1823/4 reaching a peak of production in 1858 (Morrison 1983).

The Tithe map for the parish of Illogan c1840 (Fig 3) shows no buildings or shafts at the site of the present Marriott's shaft complex but it does show a group of three buildings to

the northwest of the site. The accompanying Tithe Apportionment states that the land was part of Nancekuke tenement and was owned by Lady Frances Basset of Tehidy at that date. The mine was clearly named after Lady Frances Basset who was responsible for granting the lease.

By 1856 seven shafts had been sunk at South Wheal Frances (Graces Guide 1856) including Marriott's Shaft which is recorded as having a 75 inch pumping engine erected there in 1847 (Palmer and Neaverson 1987). However, Marriott's Shaft is known to have existed by 1845 (Morrison 1983; Sharpe 1992). The original engine house at Marriott's Shaft does not survive; it was burnt down in 1895 and replaced in 1896 with the existing engine house which is located on the same site.

By the 1870's copper lodes had been exhausted here, but the discovery of tin (part of the Great Flat lode) enabled mining to continue. In 1890 South Wheal Frances was amalgamated with West Wheal Basset (in the hope of increasing profitability) becoming 'South Frances United' but the decline in tin prices in 1893-94 forced another amalgamation of companies with Wheal Basset in 1896. The resultant company 'Basset Mines Ltd' redeveloped the Marriott's Shaft area of the mine over a period of 12 years between 1896 and 1908. All of the surviving buildings seen in the Marriott's Shaft complex today date to this period of redevelopment, and they are the only example in Cornwall of a complete infrastructure of mine buildings from this period (Smith 1992, 2).

The OS map of c1880 (Fig 4) shows the buildings and structures at Marriott's shaft prior to the destruction by fire of the mid 19th century engine house and the redevelopment of the site in the 1890s and 1900s. It indicates that there were no previous buildings on the site on the later miners' dry. The c1907 OS map (Fig 5) shows the site part of the way through its redevelopment, at a time when the new engine house had been built and many of the associated new buildings had been added, but just before the construction of the miners' dry.

In 1908 the miners' dry was built to provide baths, changing rooms and an area for drying clothes within a single, purpose-built building.

The outbreak of war in 1914 coincided with a disastrous year for the mine and a loss of £14,145 was reported. Labour was also a problem because men were leaving to fight in the war and this resulted in a drop in output, so losses continued, compounded also by serious damage sustained by the pumping engine at Pascoe's shaft (Palmer and Neaverson 1987, 38). During the war the decline continued with losses continuing to accumulate and eventually the creditors stepped in and pumping on the mine stopped for good on the 21st December 1918. The miners' dry had only been in use for ten years before the mine closed.

The following timeline is taken from Smith (1992) but is based on the dates given in Palmer and Neaverson (1987). It lists the major events in the history of South Wheal Frances mine:

- 1824** South Wheal Frances at work.
- 1825** Mine closed and surface plant sold.
- 1834** South Frances reopened.
- 1846** First dividend paid (on copper ore).
- 1847** 75 inch pumping engine erected on Marriott's shaft.
- 1857** 24 inch winder erected to draw from Marriott's and Pascoe's. One of the first applications of wire rope in Cornwall.
- 1864** Dividends ceased; copper production in decline.
- 1876** Great Flat Lode cut from Pascoe's Shaft.
- 1877** Copper production ceased; output all black tin.
- 1878** 36 inch winder erected at Pascoe's shaft.
- 1882** New 80 inch cylinder fitted to Marriott's pumping engine.
- 1886** Great Flat lode cut in Marriott's Shaft.
- 1888** 80 inch pumping engine erected on Pascoe's shaft.

1892 South Wheal Frances and West Basset amalgamated to form South Frances United. All stamping and dressing operations transferred to West Basset Stamps, Carnkie via (northern) tramway system.

1895 Marriott's pumping engine house destroyed by fire.

1896 South Frances United amalgamated with Wheal Basset to form Basset Mines Ltd. Marriott's shaft redeveloped and re-equipped with all new plant.

1899 New plant at Marriott's in operation.

1906 New Compressor house built at Marriott's. Three additional boilers installed.

1908 New (southern) tramway laid from Marriott's to Basset Stamps. New Miner's Dry and Change-house erected.

1914 Heavy losses due to low grade ore and high operating costs.

1918 Basset Mines closed, and pumping stopped.

Following the closure of the mine the buildings at South Wheal Frances were stripped of all plant and valuable materials that could be used to repay debit. An RAF aerial photograph taken in 1946 (Fig 6) shows nearly all the buildings as roofless shells with only their stone walls standing.

Subsequent activity on the site following the closure of the mine was focused on extracting minerals from the extensive mine dumps and from the tailings on the sites of the former dressing floors. Mine spoil was taken from the site between 1932 and 1939 for use as hardcore elsewhere (Sharpe 1992).

The miners' dry was reused in the mid 20th century between 1953 and 1974 when the site was leased out to a company manufacturing and storing concrete blocks and other concrete products (Sharpe 1992). At this time a single storey lean-to building was inserted in the southeast quarter of the main drying room (room 5) after the miners' dry had been gutted and its roofs removed. Within the inserted lean-to building (which itself had been removed by the 1980s) there is a contemporary concrete floor and a machine base. In room 9 at the east end of the dry there is another concrete machine base which was also inserted in the mid 20th century. A Planning Application, dated 1953, was granted for 'alterations to and use of building and adjacent land for manufacture and storage of breeze blocks and concrete products' (W2/53/04221/F).

Aerial photographs taken in 1988 show that the building had been abandoned once more and that the roof and walls of the inserted mid 20th century lean-to inside the main drying room had been removed.

In 1993 Listed Building Consent (W2/PA93/H0087) was granted for the partial demolition of the miners' dry and alterations to the window openings of the existing building. The extent of this demolition and the alterations to the window openings is unclear, although it seems likely that the missing sections of the front (north) wall were removed at this time.

6 Historic development of the building

Phase 1: Miners' dry built in 1908

The building was first constructed in 1908 to provide baths, changing rooms and an area for drying clothes in a single, purpose-built building. It also provided offices or croust/crib rooms, WCs and storage room/s. Although, only the stone walls and floor surfaces at ground floor level survive, the original plan-form has been preserved. The architectural style of the building was designed to match that of the other buildings in the Marriott's Shaft complex.

Phase 2: Alterations 1908-1918

Following the closure of the mine, the interior fixtures and fittings in the building were stripped out, this included the roofs, upper floors, windows, doors and pipework. Some

minor alterations were made to the building either during its use as a miners' dry or when the mine closed; these alterations include the blocking of the centrally set front door in the north wall and the insertion of a new door opening between Rooms 4 and 5. It is possible that the missing sections of the north wall were demolished when the mine closed in order to easily remove large items from the building such as the boiler and steam pipes.

Phase 3: Reused as concrete block manufactory 1953-1974

After its closure in 1918 most of the buildings at South Wheal Frances were abandoned and stripped of all their saleable materials. The majority of buildings are shown in this state, with their roofs and interior floors removed on an RAF aerial photograph taken in 1946 (Fig 6).

The Miner's Dry itself was reused for manufacturing and storing concrete blocks and other concrete products between 1953 and 1974. During this time a lean-to building was inserted in the southeast quarter of the main drying room (room 5), three window openings in the back wall where the lean-to was inserted were blocked with concrete blockwork and inside the new building a concrete floor was laid, and a machine base was installed against the back wall at the west end of the new building. The scar of the phase 3 lean-to roof and front wall can be seen on the east wall of room 5. Another concrete machine base was inserted during this period against the west wall of room 9. It seems likely that the pier of masonry between the door and window openings in the north wall of room 9 was removed and replaced with a cast iron pipe at this time in order to get a large piece of machinery into room 9.

Phase 4: Repairs, alterations and demolition 1974 – present

Beside the present scheme of repair work other repairs and alterations have been undertaken since the 1970s. Past repairs include the insertion of replacement timber lintels in window openings in rooms 1 and 3, the insertion of a steel prop above the steam pipe opening in the partition wall between rooms 4 and 5 and the insertion of railings to prevent entry into the two bathrooms (rooms 2 and 6).

In 1993 Listed Building Consent (W2/PA93/H0087) was granted for the partial demolition of the miners' dry and alterations to the window openings of the existing building. The extent of this demolition and the alterations to the window openings is unclear, although it is possible that some of the missing sections of the front (north) wall were removed at this time.

7 Building description

(For room locations see Fig 8).

7.1 General description, functions and layout

The building is now a roofless shell with the majority of interior fittings removed. There are no remaining windows, doors or upper floors. However, it retains much of its original plan-form and understanding, and was designed originally to house washing, drying and changing facilities for the miners as well as crib/croust rooms and/or office space and storage.

The walls are constructed from slatestone and granite rubble bonded with an earth and lime mortar. They have dressed granite quoins and jambs and mainly round brick arches for the openings which are bonded with cement mortar, although there are a few window and door openings with timber lintels. Externally and internally the wall surfaces have remnants of what appears to be an original cement wash, and some rooms have cement-based plaster on the walls.

The east end of the building (where offices/croust rooms, WC and storage rooms were located) appears to have originally been a three-storey structure, with a first floor storage room (room 10) over rooms 7, 8 and 9 on the ground floor, and another room in the gable

ended roof space over room 10 at second floor level. The central part of the building containing the communal drying room (rooms 5), along with the west part of the building as far as and including room 4, appears to have been a two-storey structure with first floor room(s) existing in the gabled roof space probably lit by dormer windows in the north wall. To the rear (south) of room 5 there is a wing that project southwards containing room 6, the communal bathroom, which is likely to have been a single-storey structure. Rooms 1, 2 and 3 adjoining the west gable end of the building were constructed together as a single-storey lean-to.

A group of rooms at the west end of the building (rooms 1, 2, 3 and 4), were originally accessed separately to the main central drying room (room 5), and included a small bathroom (room 2), a possible changing room (room 3), a possible WC (room 1) and a boiler room/ drying room (room 4) at ground floor level. It seems likely that this separate group of rooms was for the use of the mine captain and other important people making visits underground.

The central part of the building was originally accessed via a door in the front (north) wall which led through to a large communal changing and drying room (room 5), which in turn led through to a communal bathroom containing a large shared bath in a wing to the south (room 6). These two rooms were for the use of the miners for washing, changing and drying their clothes over large, heated steam pipes which ran from west to east through room 5.

The function of the ground floor rooms at the east end of the building (rooms 7, 8 and 9) is less clear although the fact that these rooms are all heated by fireplaces suggests that they may have been used as croust/crib rooms or offices (rooms 8 and 9) and a WC (room 7). There was also a large room at first floor level here (room 10). This room was unheated and accessed only via an external ramp/steps leading to a first floor door opening in the east gable end wall. This suggests that the room was designed for storage of materials. Above room 10 there was another room at second floor level in the roof space, presumably also used for storage. Adjoining the north and south ends of the east gable wall externally are two low, stone rubble walls which extend eastwards for approximately 10m. They may have once formed a holding bay for goods being loaded into the first floor store (room 10) at this end of the building.

7.2 Exterior

7.2.1 North elevation

(Figs 10, 11, 12, 13, 14, 20 and 22).

The north elevation is divided into three sections, the main central part of the building is stepped forward from the east and west ends. Adjoining the east end of the elevation, there is a low stone rubble-built wall which slopes down towards the east and appears to form the north side of a bay projecting eastwards from the building. The east end of the building itself is a two-storey structure. The wall is constructed from randomly coursed slatestone and granite rubble with a cement wash over. The ground floor level of this elevation is symmetrical, with two door openings in the centre and a window opening on either side. The jambs between the door and window openings to the east had been replaced in the mid 20th century with an iron water pipe reused as a pillar, but the jambs have now been rebuilt. The openings all have round brick arches with three courses of brick voussoirs and granite jambs. None of the windows or doors survive. At first floor level there is a single window in the centre which would have lit room 10. It matches the window openings at ground floor level. At the east end of the wall there is a dressed granite quoin.

The main part of the north elevation is stepped forward from the east and west ends. It is constructed from randomly coursed slatestone and granite rubble with a cement wash over. Much of the elevation is obscured by ivy growth. Some parts of this elevation have now been demolished but originally it would have been symmetrical with a centrally set door opening and eight large, round-arched window openings (four on either side of the

door opening). Only three of the window openings survive completely; one at the east end and the two either side of the central door opening. All the window and door openings have round brick arches with three courses of brick voussoirs and dressed granite jambs. The centrally set door opening has a round brick arch with three courses of brick but has been blocked with stone rubble and rendered. At either end of this main section of the north elevation there are dressed granite quoins. The height of the wall varies slightly, possibly indicating positions of removed dormer windows in the roof space.

Set back from the main part of the elevation to the west is the end elevation of a single storey lean-to. The wall is constructed from randomly coursed slatestone and granite rubble with a cement wash over. In the centre of the wall there is a window opening with timber lintel over and the west end of the wall has a dressed granite quoin.

7.2.2 East elevation

(Figs 15, 16 and 17).

This elevation comprises three parts: the main eastern gable end (of rooms 9 and 10) and two stepped-back, narrow elevations either side forming the east elevation of the main dry (room 5). The walls are constructed from randomly coursed slatestone and granite rubble with a cement wash over and dressed granite quoins. They are largely overgrown with ivy.

The main eastern gable end contains a loading door opening to the south of centre at first floor level which has a round arch comprising three courses of brick voussoirs. Above the door, at the apex of the gable there is a window opening lighting the second floor roof space.

Projecting from, and adjoining, the east elevation at either end, are two low stone walls which form an external bay/yard to the east of the gable end. In front of the elevation there is a large, concrete platform (now displaced), which was originally located against the wall, under the loading door at first floor level to support a ramp (presumably constructed from timber) leading up to it against the wall to the north. The scar of a removed sloping ramp is visible on the wall face here.

The northern part of the east elevation of the main dry room (room 5) contains a single round brick arched window with three courses of brick voussoirs and dressed granite jambs (Fig 16). The southern part of the main dry's east elevation contains a brick arched door opening with three courses of brick voussoirs, dressed granite jambs and a granite threshold (Fig 17).

7.2.3 South elevation

(Figs 18 and 19).

Most of the south elevation is no longer visible or accessible due to dense vegetation and ivy growth (Fig 19). However, the eastern part of it associated with rooms 7, 9 and 10 was visible and accessible at the time of the survey (Fig 18). The wall here is constructed from randomly coursed slatestone and granite rubble with a cement wash over and there is a dressed granite quoin at the east end. The ground floor contains three window openings and a door opening giving access through to room 7. All the openings have round brick arches with three courses of brick voussoirs and dressed granite jambs. At first floor level there is a centrally set window opening lighting room 10 which matches those at ground floor level.

7.2.4 West elevation

(Figs 20 and 21).

The west gable of the building and adjoining single-storey lean-to were overgrown and covered with ivy at the time of the initial survey. At the north end of the gable wall there is a round arched door opening with three courses of brick voussoirs which originally gave separate access to changing rooms and bathroom at this end of the building for the use of the mine captain and others in a more senior role. At the south end of the gable wall there is a window opening with a concrete lintel. Projecting from the centre of the elevation is a

single storey lean-to with a single, centrally set window lighting the bathroom (room 2). The lintel or arch of the window is now missing where the upper part of the wall has collapsed. On the gable there is a horizontal scar and immediately below it a line of sockets indicating the position of the former lean-to roof.

7.3 Interior

7.3.1 Room 1 – Possible WC or changing room for mine captain/managers

(Figs 8 and 23-29).

The original function of this small room is not clear, but it is most likely to have been used either as a WC or as a changing room for higher ranking men.

The north wall is constructed of brick and slatestone rubble with a cement wash render (Fig 23). One brick shows its maker's mark and is stamped 'St Day' (Fig 24). The east, south and west walls are all constructed from granite and slatestone rubble and are also cement wash rendered. All of the walls are bonded with earth and lime mortar. In the east wall there is a door opening giving access from room 4. It has dressed granite jambs and a brick arch with two courses of brick voussoirs. Above the door opening are sockets for the former lean-to roof structure are visible. In the south wall there is a large window opening with splayed, dressed granite jambs, a sloping, cement rendered sill and a timber lintel. Part of the floor to the southwest is missing but the remainder of what appears to be the original floor comprises cobbles set in a cement based mortar.

7.3.2 Room 2 - Bathroom for mine captain/managers

(Figs 8 and 30-34).

The north and south partition walls of the bathroom are constructed from brick and slatestone rubble, and the east and west walls are constructed from granite and slatestone rubble. All the walls are bonded with a lime and earth mortar and have remnant of a cement render wash. In the east wall there is a round arched door opening with dressed granite jambs giving access to room 4. The arch is constructed from two courses of brick voussoirs. Access into the room has been prevented by the insertion of modern railings across the door opening. Above the opening is a socket associated with the former lean-to roof structure. In the west wall there is centrally set window opening with splayed, dressed granite jambs and sloping, cement rendered sill; the lintel or arch and walling above has collapsed or been removed. Stepped and recessed into the floor is a bath constructed from brick and rendered with cement mortar (Fig 34). Most of the bricks forming the raised sides of the bath have been removed and an iron water pipe is visible at the west end.

7.3.3 Room 3 – Possible changing room for mine captain/managers

(Figs 8 and 35-40).

The original function of this small room is not clear, but it is most likely to have been used as a changing room for higher ranking staff and visitors.

The north, east and west walls are all constructed from granite and slatestone rubble. The south partition wall is constructed from brick and slatestone. All of the walls are bonded with earth and lime mortar and have remnant of a cement render wash. In the north wall there is a large window opening with splayed, dressed granite jambs, a sloping, cement rendered sill and timber lintel (replaced as part of the present works). In the east wall there is a round arched door opening with dressed granite jambs giving access to room 4. The arch is constructed from two courses of brick voussoirs. Above the opening there are sockets associated with the former lean-to roof structure. The floor now has a modern gravel surface. In the west wall there was an area of missing masonry fairly high up in the wall which has now been rebuilt as part of the present works. The flat base of this missing area of masonry suggests that a possible shelf or other fixture built into the wall had been removed, causing the collapse.

7.3.4 Room 4 – Boiler/drying room

(Figs 8 and 41-50).

This room may have originally functioned as a boiler room and possibly also as a drying room for the mine captain and others in a more senior role. There was originally a room over room 4 at first floor level, but its function is unknown.

The walls are all constructed from granite and slatestone rubble bonded with earth and lime mortar and have remnants of a cement wash render. The north wall has almost entirely been removed (Fig 41).

At the north end of the east wall there is an inserted door opening with granite lintel. Originally there would have been no communication between the rooms at the west end of the building and the main drying room (room 5). It is unclear when the door opening was inserted, this may have been following the closure of the mine or more recently in the 1990s. To the south of this door opening there is a brick arched opening close to ground level. This was originally designed for a large heating pipe to run through the wall and across room 5, to be used for drying clothes over. The arch over the opening comprises three courses of brick voussoirs but this has partially collapsed along with the walling above it and the gap (now filled with stone rubble as part of the present repair works) was propped with a steel pipe/tube. To the south of this opening there is another heating pipe opening constructed to match the other in both size and materials but set at an oblique angle through the wall. At the south end of the wall, close to the corner, there are several small openings presumably for pipework, some of which have been blocked.

In the south wall there is a centrally set window opening with a round arch comprising two courses of brick voussoirs. It has splayed, dressed granite jambs and a sloping sill. Below the window a stone-lined culvert passes under the wall.

The west wall is shown in Figure 49. At the south end of this wall there is a window opening with splayed, dressed granite jambs, a sloping cement rendered sill and cement rendered lintel. Below the window a stone-lined culvert passes under the wall. In the centre of the west wall are three round arched door openings with dressed granite jambs and arches comprising two courses of brick voussoirs. These three door openings give access to each of the three small rooms in the single-storey lean-to. The central opening leading into room 2 (the bathroom) is much larger than the other two door openings. At the north end of the west wall there is another door opening which was originally the only access in to this end of the building from outside. Above the door openings in this wall are several joist sockets indicating the location of the former first floor structure. Approximately 1m above these are another three sockets relating to the lean-to roof on the other side of the wall. Above these, and towards the apex of the roof are more sockets which are likely to be associated with the former roof structure.

The floor surface in room 4 is now covered with turf, but areas of the original cobbled floor are visible to the north, and in the southwest corner of the room there is below floor culvert (now missing its capstones) originally probably designed to drain water from the communal bath in room 6.

7.3.5 Room 5 – Miners' drying room (communal)

(Figs 8 and 51-63).

This large room was designed as a communal drying room for the miners. Large heating pipes once ran across the room from west to east providing a means for drying clothes. It seems likely that there was originally a first floor room as well occupying the roof space and lit by dormer windows in the north wall.

The walls are constructed from granite and slatestone rubble bonded with earth and lime mortar and have remnants of a cement wash render.

The north wall contains evidence for seven arched window openings at ground floor level and a door opening (now blocked) located slightly to the west of centre. Part of the north wall has collapsed or been removed at the west end, leaving the remains of window jambs and sills of two windows that were originally located here (Fig 51). The central part of the north wall is still standing. It contains two arched window openings with two courses of brick voussoirs, splayed, dressed granite jambs and cement rendered sills. Between the

two windows is a round arched door opening with two courses of brick voussoirs and dressed granite jambs. This has been blocked with stone rubble and rendered. The top of the wall is uneven and there are four dips which may indicate the locations of removed dormer windows (Fig 52). To the east of this a section of the wall has been removed, leaving the partial remains of window jambs, arches and sills of two windows that were originally located here on either side of the removed area. The east end of the wall remains standing and here there is another arched window opening with two courses of brick voussoirs, splayed, dressed granite jambs and a cement rendered sill (Fig 53). In the top of the wall above the window opening there is a dip in the masonry which may indicate a removed first floor dormer window.

At the north end of the east gable wall there is an arched window opening with two courses of brick voussoirs, splayed, dressed granite jambs and a cement rendered sill, and at the south end of this wall there is an arched door opening with two courses of brick voussoirs and dressed granite jambs with its granite threshold set above the interior floor level, indicating that there were probably originally timber steps up to it, over the door opening and sloping down to the north is a ridge of cement showing the location of the former roofline of the lean-to building inserted here in the 1950s as part of the concrete block manufacturing works. At the north end of the sloping roofline, there is a vertical ridge of cement, showing the former location of the north wall of this later building (Fig 54).

In the eastern half of the south wall there are three window openings of the same design and dimensions as those in the north wall. All three windows were blocked with concrete blockwork when the lean-to building was inserted against this wall in the 1950s. At the west end of this part of the wall there is a dressed granite quoin where the returns southwards to form a south wing containing room 6 (the bathroom). Presumably there was originally a timber partition wall extending across this opening separating the bathroom from the drying/changing room. On the western side of the opening, beyond room 6, the south wall of room 5 continues. It has a dressed granite quoin at the east end and there are another two window openings of the same design and dimensions as those to the east.

At the south end of the west wall dividing room 5 from room 4 there are several small openings (some blocked), presumably for pipework. To the north of the small openings there are two large rounded arched openings with brick voussoirs close to the floor and set approximately 3m apart. These were originally designed for a large heating pipes to pass through the wall from room 4 to room 5 to heat the drying/changing room. The pipe opening to the south is built at an oblique angle through the wall and the arch of the opening to the north has collapsed along with a section of the masonry above it, which at the time of the initial survey was supported by a steel tube/pipe. This missing section of brick arch and masonry has now been rebuilt as part of the present works. At the north end of the wall there is an inserted door opening with a granite lintel. This is not part of the original design and was presumably inserted when the main door opening in the north wall was blocked (Fig 58).

The floor of the room is now mainly grassed over, however, there are areas where the original cobbled floor set in cement is visible. In the southeast part of the room there is an inserted concrete floor within the footprint of the former 1950s lean-to associated with the concrete block manufacturing works (Fig 61). In the southwest corner of the former lean-to there is a concrete machine base and concrete block associated with the 1950s works (Fig 62). To the north of the former lean-to there is a rectangular concrete base set in the original cobbled floor which contains several iron bolts. It seems likely that this is associated with the original building and may have been a base for securing the large heating pipes (Fig 63).

7.3.6 Room 6 – Bathroom (communal)

(Figs 8 and 64–67)

This room forms the south wing of the original building and was designed as a bathroom containing a single communal bath. At the time of the survey the walls and bath were heavily overgrown.

The three remaining walls of this room are constructed from granite and slatestone rubble bonded with an earth and lime mortar and with a cement wash over. It seems likely that a north wall, constructed from timber, existed originally but was removed after the closure of the mine. There are now modern railings in its place preventing public access into the room. There is one round arched window opening with two courses of brick voussoirs, splayed dressed granite jambs and cement rendered sill in each of the three remaining walls. Sunk into the floor there is a large apsidal brick-built bath covered in a cement render which occupies most of the room. A culvert leading under the west wall was used for drainage. It seems likely that this projecting south wing was a single-storey structure, although the tops of the walls were not visible at the time of the survey.

7.3.7 Room 7 – possible W/C

(Figs 8 and 68-71).

This room may have been designed originally as a W/C. Low concrete basin up against the south wall may have served as urinals.

The north and east partition walls of this room are constructed from brick and slatestone rubble, which have been cement rendered. The south and west walls are constructed from granite and slatestone rubble bonded with lime and earth mortar, which have also been rendered with cement. In the east wall there is a door opening with timber lintel giving access through to room 9. In the south wall there is a round arched door opening to the east and a round arched window opening to the west. Both openings have two courses of brick voussoirs forming the arches, and the jambs have been rendered. Directly below the window opening there are three adjoining concrete basins (possibly urinals). In the west wall there is a chimney flue which presumably originally serviced a wood/coal burning stove. The flue appears to have been cut into the wall and sealed with brickwork although the lower half of the brickwork is now missing. The floor surface is now covered with earth but a line of brickwork indicating a former wall base was just visible running southwards between the door opening in the south wall and the possible urinals.

7.3.8 Room 8 – Office or croust/crib room

(Figs 8 and 71-75).

This room may have been designed originally as an office or croust/crib room.

The east and south partition walls of this room are constructed from brick and slatestone rubble and have been cement rendered. The north and west walls are constructed from granite and slatestone rubble bonded with lime and earth mortar and have a cement render finish. In the north wall there is a window opening to the west and a door opening to the east. Both openings have two courses of brick voussoirs forming the arches, and the dressed granite jambs have been rendered. In the west wall there is a chimney flue which presumably originally serviced a wood/coal burning stove. The flue appears to have been cut into the wall and sealed with brickwork although the lower half of the brickwork is now missing, and a hole has been made through the flue into Room 5. The floor surface is concrete.

7.3.9 Room 9 – Office or croust/crib room

(Figs 8 and 76-83).

This room may have been designed originally as an office or croust/crib room.

The north, east and south walls are constructed from granite and slatestone rubble bonded with lime and earth mortar and have been rendered with cement. The west partition wall is constructed from brick and granite rubble with a cement render finish. In the north wall there is a door opening to the west and a window opening to the east. Both openings have two courses of brick voussoirs forming the arches, and the surviving dressed granite jambs have been rendered. The jambs between the door and window were removed and replaced by a cast iron water pipe, probably in the 1950s, when the building was reused as a

concrete block manufactory works. It seems likely that this pier, forming the two granite jambs was removed deliberately in order to allow wider access into the room or to allow for large machinery to be brought in. As part of the present works the reused iron pipe has been left *in situ* and granite jambs have been reconstructed around it to restore the forms of the original openings. In centre of the east wall there is a small fireplace opening with a granite lintel and jambs. Above the fireplace, and along the length of the wall there are joist sockets showing the position of the former first floor structure. In the south wall there are two round arched window openings with brick voussoirs and splayed, dressed granite jambs. At the south end of the west partition wall there is a door opening with timber lintel giving access through to room 7. A concrete machine base associated with the room's reuse as a concrete block manufactory in the mid 20th century has been inserted against the centre of the west wall. The floor surface is concrete.

7.3.10 Room 10 – Storeroom over Rooms 7-9

(Figs 8 and 70-73, 76, 78-80 and 84-85).

Room 10 was originally a large, first floor room over rooms 7, 8 and 9. It was lit by two windows, one in the north wall and the other in the south was and accessed externally via a ramp up to a large loading door in the east wall. The room was not heated and was only accessed externally, indicating that it was probably used for storage. Above room 10 there is evidence for a second floor room space, originally lit by a single window in the east gable wall.

The walls are all constructed from granite and slatestone rubble bonded with earth and lime and have remnants of a cement render finish. In the north and south walls there are centrally set round arched window opening with two courses of brick voussoirs forming the arches and splayed, granite jambs. In the east gable wall, there is a round arched loading door opening offset from the centre to the south which gave access from outside to the first floor room, and above this to the north there is a window opening lighting the second floor roof space, which is now missing its arch or lintel where the top of the wall has collapsed. There are several joist sockets in this wall for the former first and second floors. In the west wall there are two flues which join towards the apex. These have been cut into the wall with the outer face constructed from brick. The chimney stack is now missing. There are joist sockets for the former first and second floors.

8 Remedial works

(See Fig 9 for plan showing locations of repair works).

8.1 Repair 1: Room 1

Two of the timber lintels over the window opening in the south wall were replaced due to rot with similar sized timber lintels made from oak and were mortared in as necessary (see Figs 26 and 27 for before and after repairs).

Along the whole of the west end of the building the vegetation was cleared and the tops of the single storey walls of rooms 1, 2 and 3 were capped with lime mortar (see Figs 20 and 21 for before and after repairs).

8.2 Repair 2: Room 3

An area of stonework in the west wall of room 3 had been lost, possibly caused by the removal or rotting out of a timber feature in the wall. This has now been repaired by infilling with lime mortared local stone rubble above, recessed by 25 – 50mm (see Figs 39 and 40 for before and after repairs).

The lintel and stonework above the window in the north wall of room 3 were also replaced as part of the repair works using an oak lintel and the walling above repaired using lime mortar (see Figs 35 and 36 for before and after repairs).

Along the whole of the west end of the building the vegetation was cleared and the tops of the single storey walls of rooms 1, 2 and 3 were capped with lime mortar (see Figs 20 and 21 for before and after repairs).

Another repair included the upper part of damaged quoin at the west end of the north exterior elevation of room 3. This was rebuilt to match the existing and bonded with lime mortar (see Figs 20, 21 and 22 for before and after repairs).

8.3 Repair 3: Room 1

The vegetation was cleared from the tops of the single storey walls of rooms 1 and they were then capped with lime mortar (see Figs 20 and 21 for before and after repairs).

8.4 Repair 4: Rooms 4 and 5

A section of the dividing wall between rooms 4 and 5 had collapsed above the northern steam pipe opening including part of the brick arch of the opening. A previous repair using a tubular steel prop had been undertaken to stabilise the unsupported masonry, but the masonry was continuing to fail. This area has now been repaired by rebuilding the brick arch for the steam pipe opening and filling the void above with local stone rubble bonded with lime mortar. The face of the new walling has been inset from the existing wall by 25 – 50mm and the new masonry has been constructed around the existing prop. The base of the steam pipe opening has also been consolidated using stone rubble bonded with lime mortar (see Figs 44, 45, 58, 59 and 60 for before and after repairs). In addition, the top of the partition wall dividing room 4 from room 5 has been capped with lime mortar.

A small patch repair was also undertaken on the east wall of room 5 using lime mortar (see Figs 54 and 55 for before and after repairs).

8.5 Repair 5: Rooms 7, 8 and 10

The two chimney flues in the west wall of rooms 7, 8 and 10 have lost most of the brickwork in their lower halves. Because there was potential for bricks to continue to fall, the bases of the remaining brickwork in both flues were consolidated using lime mortar and supported from below by the insertion of steel brackets (see Figs 84 and 85 for before and after repairs).

8.6 Repairs to Room 9

Under a previous LBC Application (PA19 09049) consent was granted (Ref: 4893440) for repairs to a previous repair at the north end of room 9, where an iron pipe had been reused as a pillar to replace missing masonry jambs of two closely set openings. This area was repaired by leaving the corroded iron pipe *in situ* and rebuilding the missing granite jambs around it to match the original jambs and filling the void next to the pipe with high strength mortar. In addition, the iron pipe had a 'letter box' opening cut into the top of it and mortar was poured in to fill the hollow inside. At the same time the sill of the window to the east of the pillar was repaired using a single course of brick on the external half and a cement render on the internal half (see Figs 10, 11, 12, 13, 14, 76 and 77 for before and after repairs).

Repairs were also undertaken to the brick arch of the window opening in the south wall of room 9 where missing brick voussoirs were replaced using a lime mortar (see Figs 80, 81 and 82 for before and after repairs).

9 References

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9.3 Websites

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www.mapapps.bgs.ac.uk British Geological Map Viewer

www.gracesguide.co.uk/1856_Mines_in_Devon_and_Cornwall

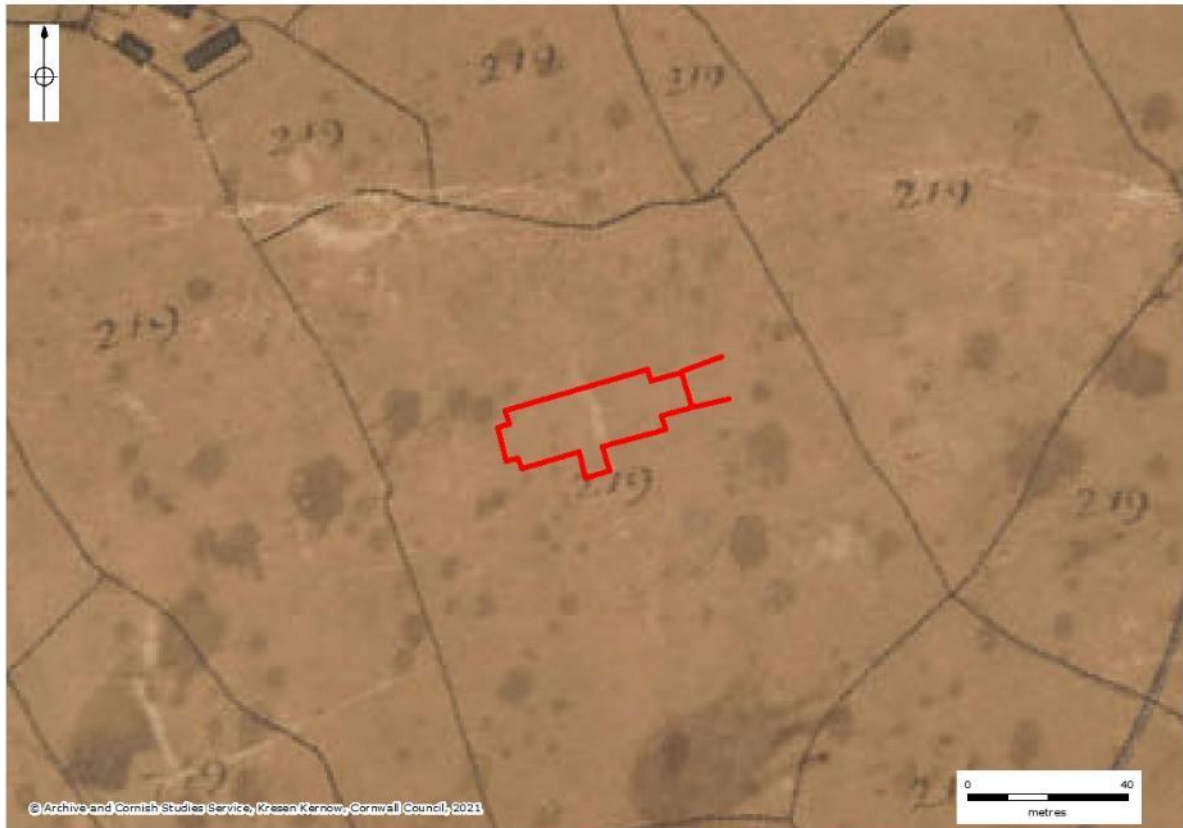


Fig 3 Tithe Map, c1840

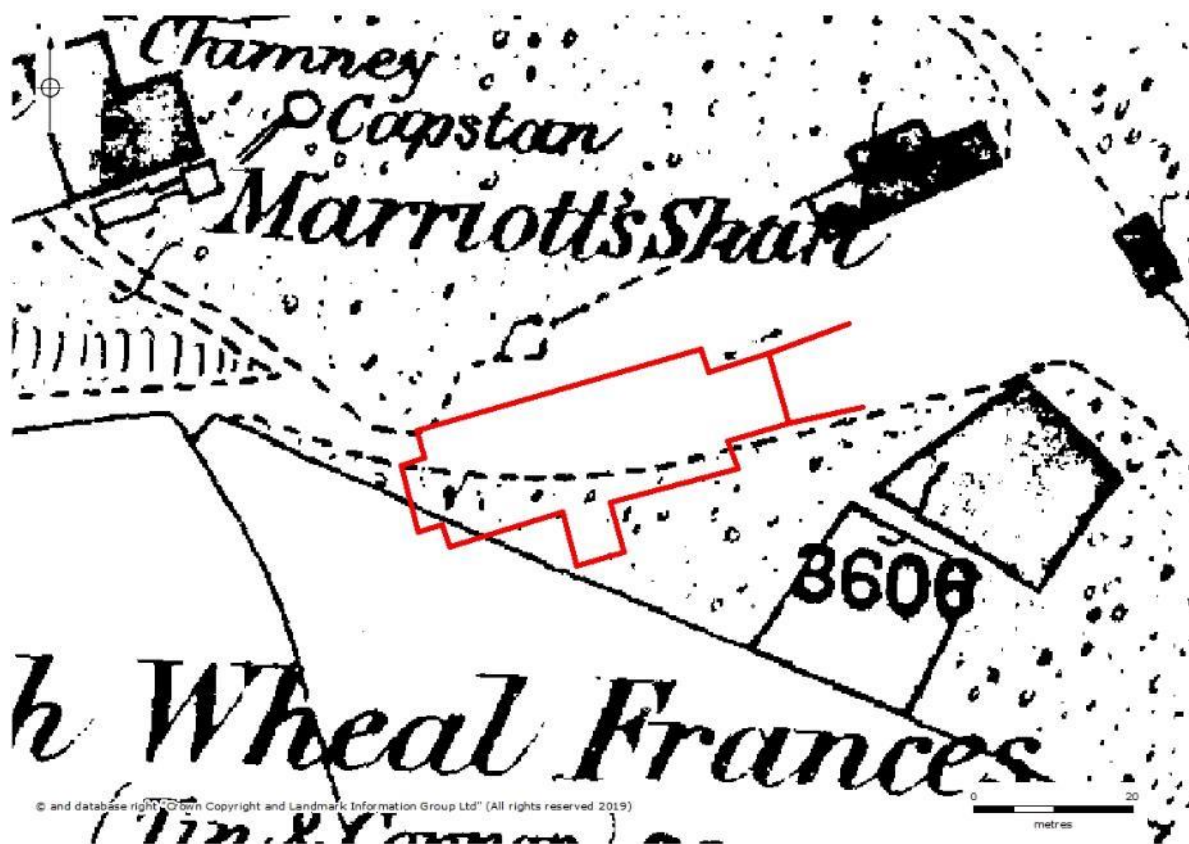


Fig 4 First Edition of the Ordnance Survey 25 Inch Map, c1880.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record

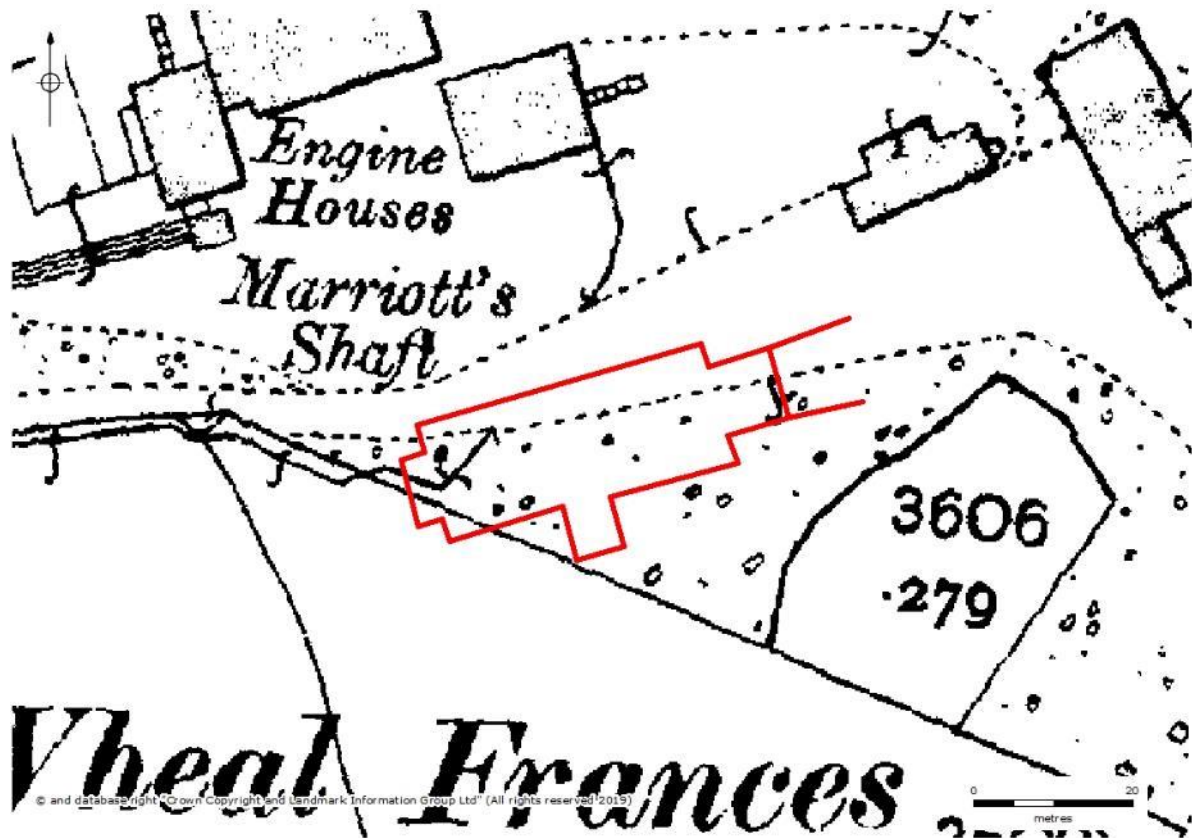


Fig 5 Second Edition of the Ordnance Survey 25 Inch Map c1907.



Fig 6 RAF aerial photograph taken in 1946 showing the roofless buildings.



Fig 7 Photograph taken 1930s-1980s by John Piper showing the east end of the miners' dry to the left (© TGA 8728/1/6/7).

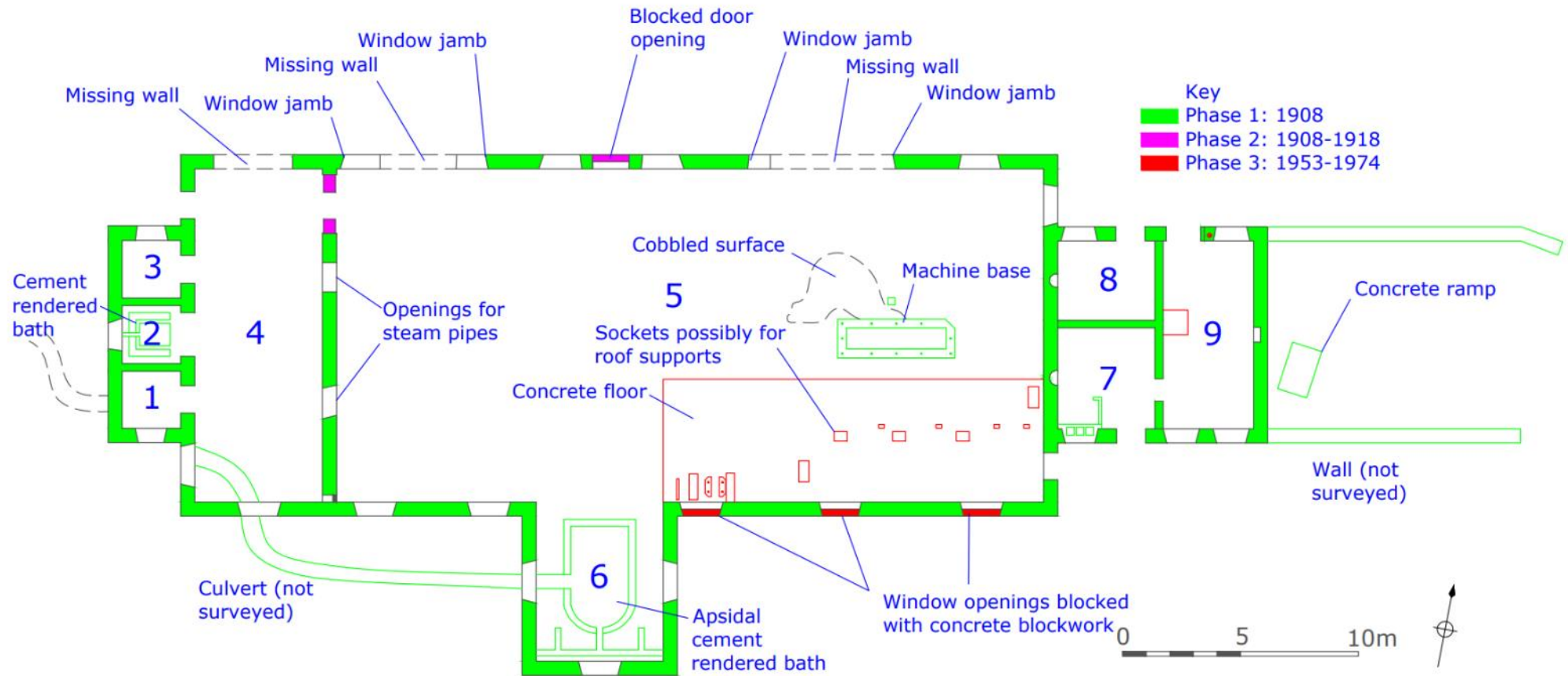
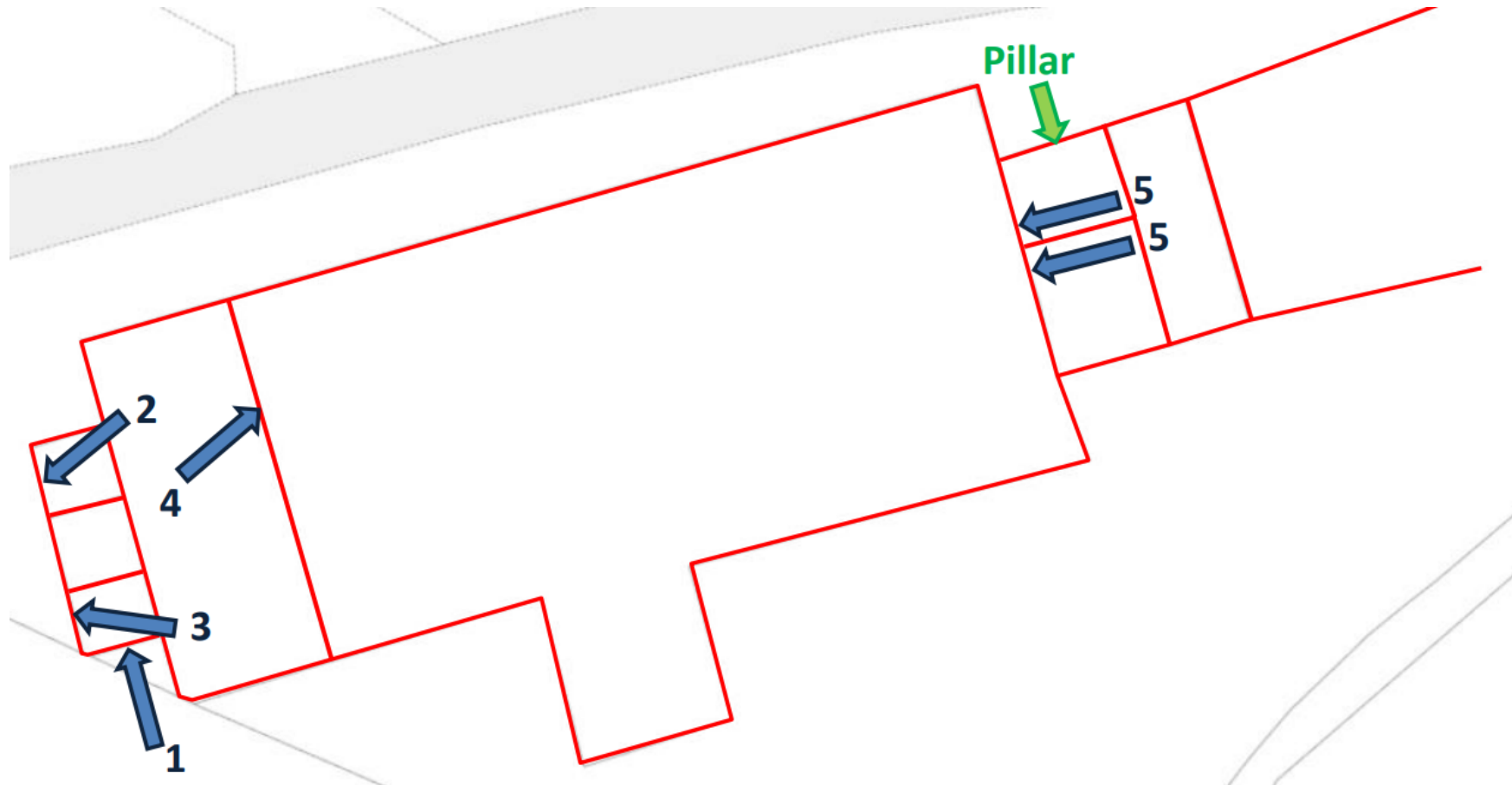


Fig 8 Ground floor phase plan showing room locations.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Wheal Frances Miners Dry Building – Floor Plan (Indicative)

Defects:

- | | |
|--|--|
| 1. Small Room (West Elevation) - Replacement of Timber Lintels | 2. Small Room (West Elevation) - Missing Stone |
| 3. Small Room (West Elevation) – Vegetation Issues | 4. West Elevation – Propped Wall |
| 5. Double Chimney – Loss of Masonry | |

Fig 9 Ground floor plan showing locations of remedial works (Cormac Solutions Ltd).

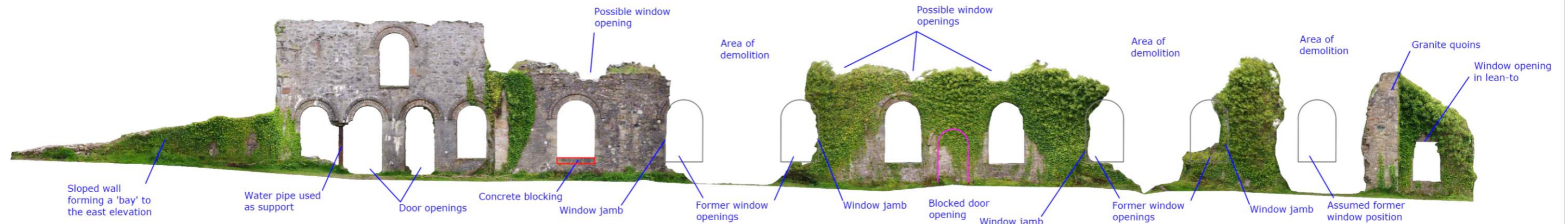


Fig 10 Orthographic image of north elevation before remedial works.



Fig 11 North elevation, east end showing reused iron pipe for missing window and door jambs.



Fig 12 North elevation, east end following repairs, showing rebuilt window and door jambs around iron pipe.



Fig 13 North elevation, east end following repairs, showing rebuilt window and door jambs around iron pipe and new brick sill.



Fig 14 North elevation, east end following repairs to the window sill of room 9.



Fig 15 East elevation.

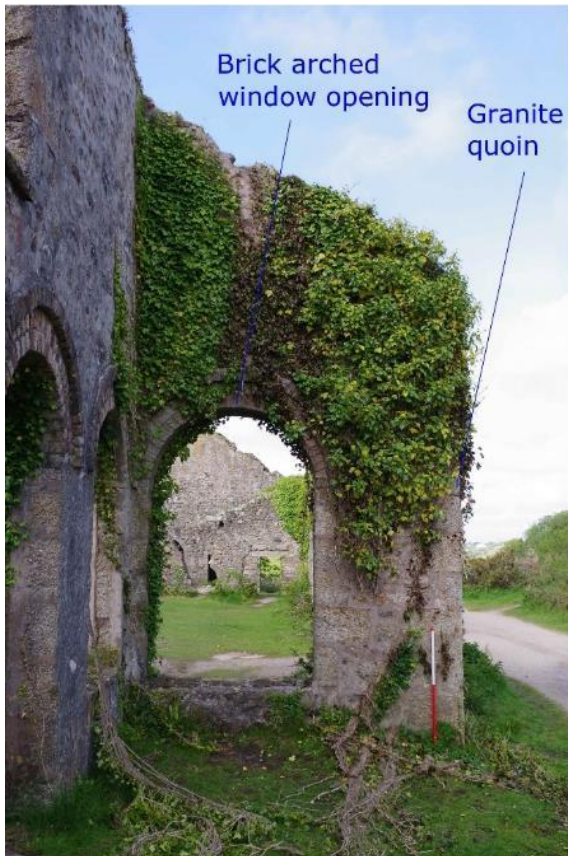


Fig 16 East elevation of main dry where it protrudes to the north.



Fig 17 East elevation of main dry where it protrudes to the south.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Fig 18 South elevation, east end.



Fig 19 South elevation which is mainly inaccessible and heavily overgrown.

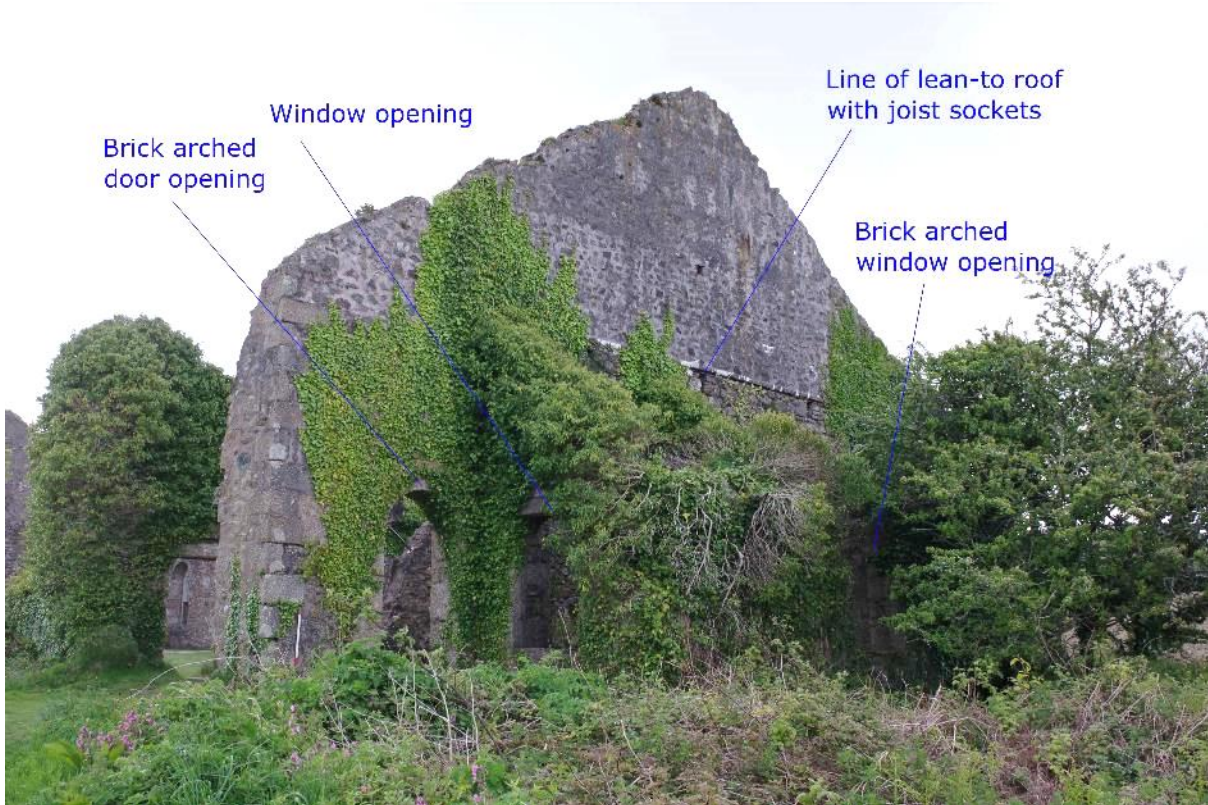


Fig 20 West elevation before vegetation clearance.



Fig 21 West elevation following vegetation clearance and repair work.



Fig 22 North exterior elevation of Room 3 following repair of the quoin and lintel.



Fig 23 Room 1 north wall.



Fig 24 Room 1, St Day brick in the north wall.



Fig 25 Room 1 east wall.



Fig 26 Room 1 south wall.



Fig 27 Room 1 south wall following replacement of lintel.



Fig 28 Room 1 west wall.



Fig 29 Room 1 floor looking west.



Fig 30 Room 2 north wall.



Fig 31 Room 2 east wall.



Fig 32 Room 2 south wall.



Fig 33 Room 2 west wall.



Fig 34 Room 2 cement rendered bath looking west.



Fig 35 Room 3 north wall before repairs.



Fig 36 Room 3 north wall following insertion of new lintel and repairs.



Fig 37 Room 3 east wall.



Fig 38 Room 3 south wall.



Fig 39 Room 3 west wall before repairs.



Fig 40 Room 3 west wall following masonry repairs.



Fig 41 Room 4 remains of north wall (now mostly missing).



Fig 42 Room 4 east wall looking northeast.



Fig 43 Room 4 east wall looking southeast.



Fig 44 Room 4 east wall, northern steam pipe opening before repairs.



Fig 45 Room 4 east wall following reconstruction of missing wall and brick arch for northern steam pipe opening.



Fig 46 Room 4 east wall, southern steam pipe opening.



Fig 47 Room 4 east wall, blocked openings for pipework at southern end of wall.



Fig 48 Room 4 south wall.

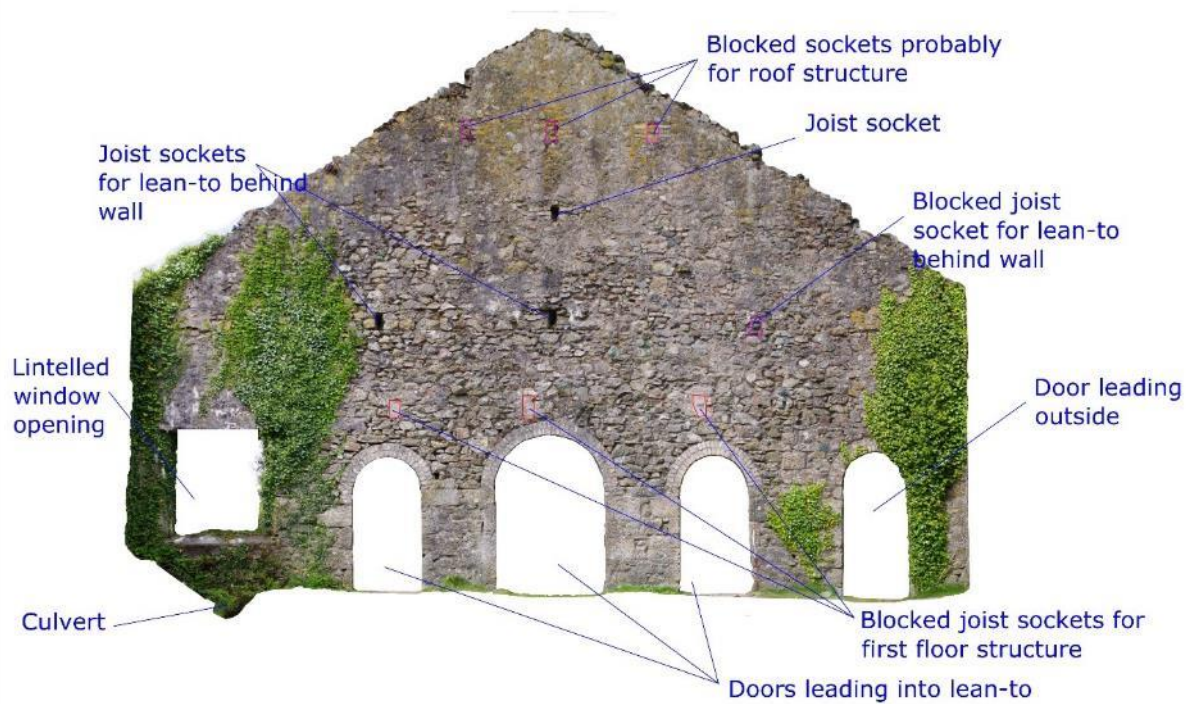


Fig 49 Room 4 west wall, orthographic image.



Fig 50 Room 4 cobble floor looking south.



Fig 51 Room 5 north wall, missing section at west end.



Fig 52 Room 5 north wall, extant central section showing original door opening now blocked.



Fig 53 Room 5 north wall, extant section at east end.



Fig 54 Room 5 east wall, showing location of former, inserted phase 3 lean-to to the right.



Fig 55 Room 5 east wall following repairs, showing small patch repair.



Fig 56 Room 5 south wall, eastern half.



Fig 57 Room 5 south wall, western half.



Fig 58 Room 5 west wall before repairs.



Fig 59 Room 5 west wall following reconstruction of missing wall and brick arch for northern steam pipe opening.



Fig 60 Room 5 west wall following repair to the base of the northern steam pipe opening.



Fig 61 Room 5 inserted phase 3 concrete floor in southeast quarter of the room, looking east.



Fig 62 Room 5, phase 3 concrete machine base against south wall.



Fig 63 Room 5, machine base at east end of floor.



Fig 64 Room 6 east wall.



Fig 65 Room 6 south wall.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Fig 66 Room 6 west wall.



Fig 67 Room 6 cement rendered communal bath built into the floor.



Fig 68 Room 7 north wall.



Fig 69 Room 7 east wall.



Fig 70 Rooms 7 and 10 south wall.

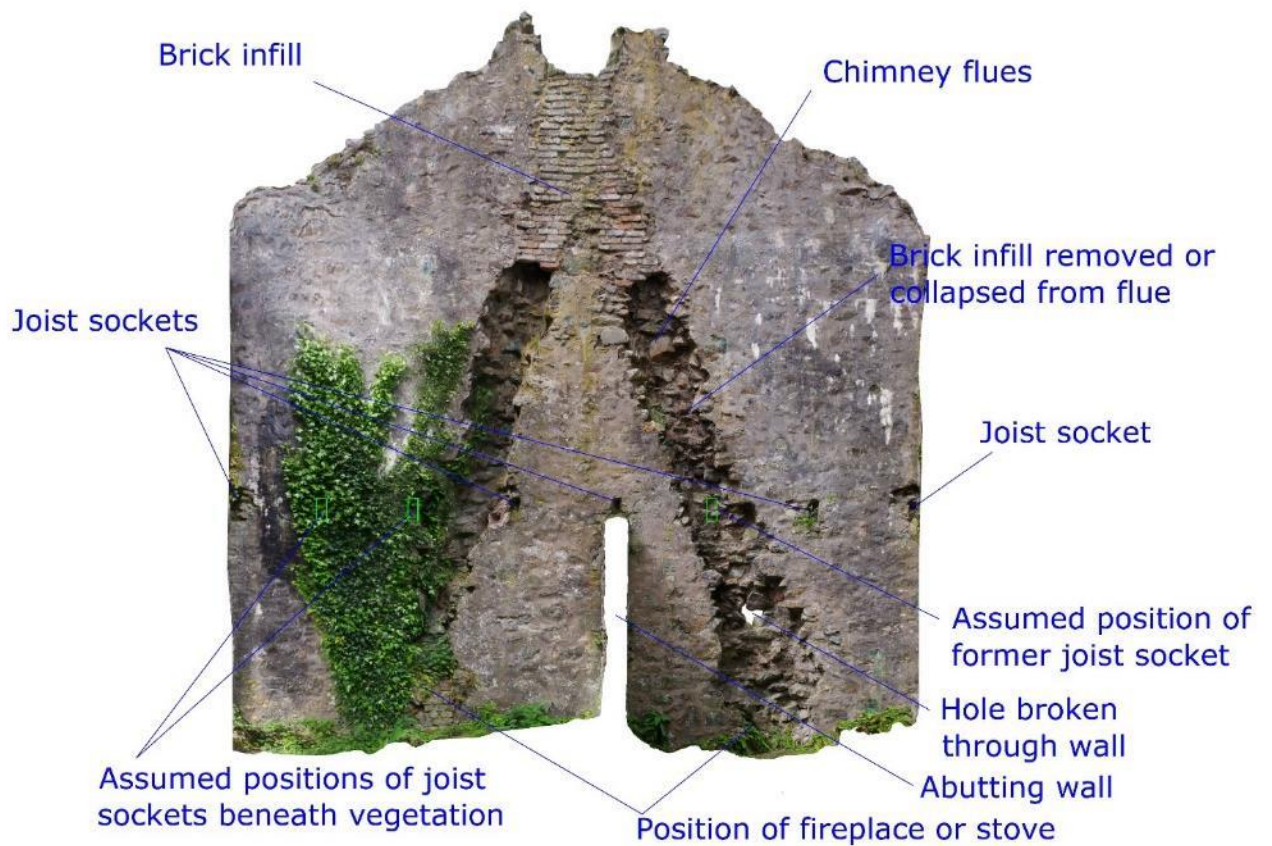


Fig 71 Rooms 7 and 8 (ground floor) and 10 (first floor), orthophoto of the west wall.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Fig 72 Rooms 8 and 10 north wall (east half) with room 10 at first floor level.



Fig 73 Room 8 north wall (west half) with room 10 at first floor level.



Fig 74 Room 8 east wall.



Fig 75 Room 8 south wall.

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Fig 76 Room 9 north wall showing iron pipe reused as pillar to replace former window and door jambs. Room 10 is at first floor level.



Fig 77 Room 9, north wall following repairs and showing rebuilt jambs around iron pipe.

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Fig 78 Room 9 east wall looking northeast, with room 10 at first floor level.



Fig 79 Room 9 east wall looking southeast, with loading door opening into room 10 at first floor level.



Fig 80 Room 9 south wall before repairs, with room 10 at first floor level.



Fig 81 Room 9 south wall following repair of the window arch.



Fig 82 South exterior elevation of the window arch of room 9 following repair.



Fig 83 Room 9 west wall.



Fig 84 Room 10 before the repair of the flues in the west wall.



Fig 85 Room 10 following repairs to the brickwork of the flues in the west wall.

10 Appendix 1: Photographic archive

(Held by the Archaeology Data Service - ADS)

A 1m scale was used in all photographs wherever possible.

Filename	Figure No in Report	Caption	Subject Keyword 1	Copyright Organisation	Holder	Creation Date (dd/mm/yyyy)
1.JPG	N/A	The miners dry in its setting	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
2.JPG	N/A	Bay wall projecting from east elevation	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
3.JPG	N/A	North elevation, offices	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
.4.JPG	N/A	North elevation, offices	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
5.JPG	N/A	North elevation, offices	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
6.JPG	N/A	North elevation, cast iron pipe used as replacement jamb	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
7.JPG	8	East elevation, north end of dry	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
8.JPG	N/A	North elevation of dry, east end	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
9.JPG	N/A	North elevation of dry, missing section in wall	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
10.JPG	N/A	North elevation of dry, centre	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
11.JPG	N/A	North elevation of dry, centre	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21
12.JPG	N/A	North elevation of dry, missing section in wall	Exterior	Cornwall Archaeological Unit, Cornwall Council		27/05/21

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13.JPG	N/A	North elevation of dry, removed section of wall to west end	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
14.JPG	N/A	North elevation of lean-to	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
15.JPG	N/A	North and east elevations of offices	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
16.JPG	7	East elevation of offices	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
17.JPG	N/A	Concrete platform in front of the east elevation	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
18.JPG	9	East elevation of miners dry, southern end	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
19.JPG	10	South elevation of offices	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
20.JPG	N/A	South elevation of offices	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
21.JPG	11	South elevation from a distance, showing the vegetation	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
22.JPG	12	West elevation	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
23.JPG	N/A	West elevation, of lean -to	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
24.JPG	13	Room 1 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
25.JPG	14	Room 1 brick to north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
26.JPG	15	Room 1 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
27.JPG	16	Room 1 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21

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28.JPG	17	Room 1 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
29.JPG	18	Room 1 floor, west facing	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
30.JPG	19	Room 2 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
31.JPG	20	Room 2 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
32.JPG	21	Room 2 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
33.JPG	22	Room 2 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
34.JPG	23	Room 2 bath in floor facing west	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
35.JPG	N/A	Room 3 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
36.JPG	24	Room 3 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
37.JPG	25	Room 3 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
38.JPG	26	Room 3 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
39.JPG	27	Room 3 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
40.JPG	28	Room 4 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
41.JPG	29	Room 4 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
42.JPG	30	Room 4 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21

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43.JPG	31	Room 4 northern aperture in east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
44.JPG	32	Room 4 southern aperture in east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
45.JPG	33	Room 4 blocked openings, south end of east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
46.JPG	34	Room 4 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
47.JPG	N/A	Room 4 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
48.JPG	N/A	Room 4 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
49.JPG	36	Room 4 floor facing south	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
50.JPG	N/A	Room 4 culvert in southwest corner	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
51.JPG	37	Room 5 north wall, removed section to west	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
52.JPG	38	Room 5 north wall, extant central section	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
53.JPG	N/A	Room 5 north wall, removed section to east	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
54.JPG	39	Room 5 north wall, extant eastern section	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
55.JPG	40	Room 5 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
56.JPG	41	Room 5 south wall, east section	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
57.JPG	N/A	Room 5, looking south into Room 6	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record

58.JPG	42	Room 5 south wall, west section	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
59.JPG	N/A	Room 5 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
60.JPG	43	Room 5 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
61.JPG	44	Room 5 floor, southeast corner facing west	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
62.JPG	45	Room 5 floor, machine bases to south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
63.JPG	46	Room 5 floor, machine base to east	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
64.JPG	N/A	Room 5 cobbled floor to east	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
65.JPG	47	Room 6 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
66.JPG	48	Room 6 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
67.JPG	49	Room 6 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
68.JPG	50	Room 6 floor	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
69.JPG	51	Room 7 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
70.JPG	52	Room 7 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
71.JPG	53	Room 7 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
72.JPG	N/A	Room 7 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record

73.JPG	N/A	Room 7 floor facing south	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
74.JPG	55	Room 8 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
75.JPG	57	Room 8 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
76.JPG	58	Room 8 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
77.JPG	N/A	Room 8 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
78.JPG	59	Room 9 north wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
79.JPG	60	Room 9 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
80.JPG	61	Room 9 east wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
81.JPG	62	Room 9 south wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
82.JPG	N/A	Room 9 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
83.JPG	N/A	Room 9 floor facing north	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
84.JPG	64	Room 10 looking west	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
85.JPG	6	Orthophoto of north elevation	Exterior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
86.JPG	35	Orthophoto of Room 4 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21
87.JPG	54	Orthophoto of Room 7, 8 & 10 west wall	Interior	Cornwall Archaeological Unit, Cornwall Council	27/05/21

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record

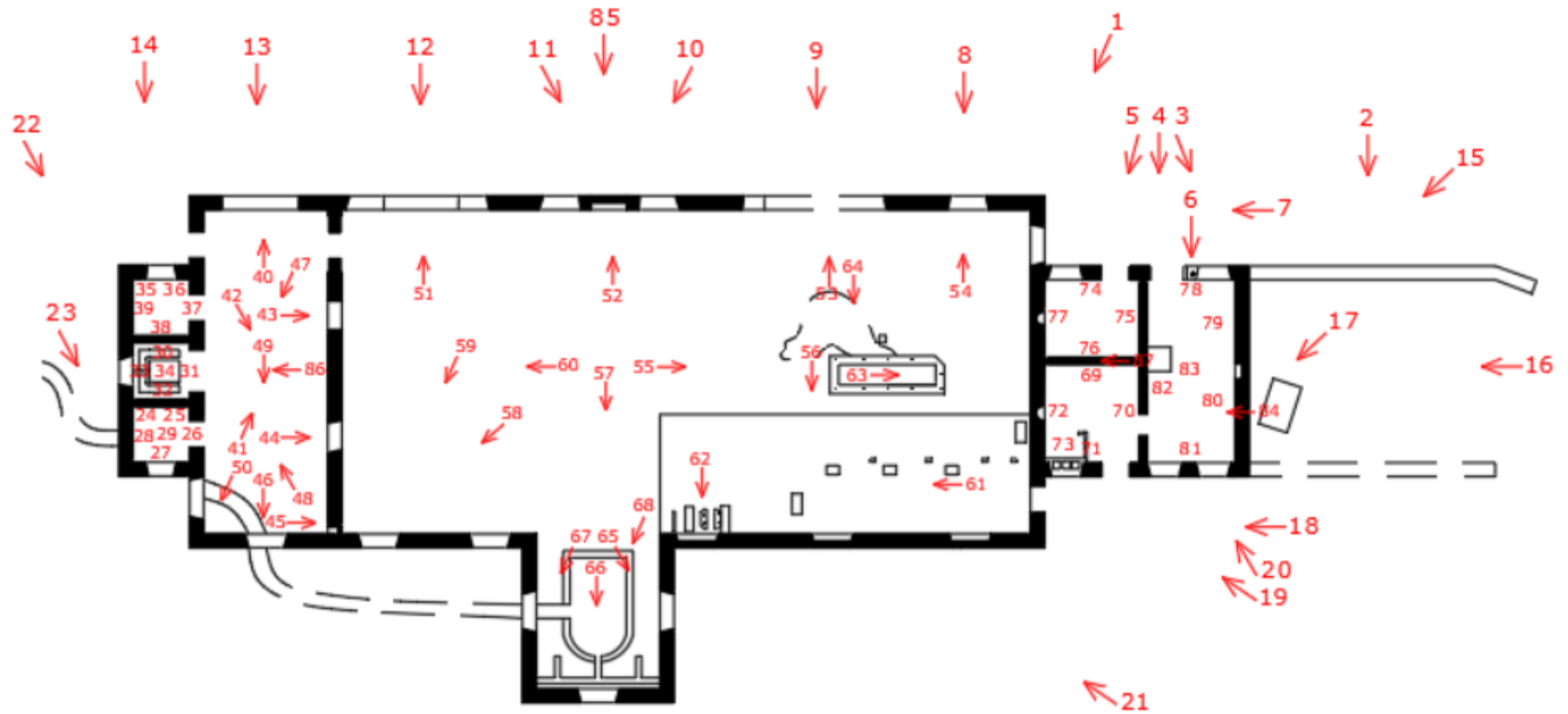


Fig 6 Photo direction plan.

11 Appendix 2: Written Scheme of Investigation Miners' Dry, South Wheal Frances, Piece: Written Scheme of Investigation for historic building record

Client: Cormac Solutions Ltd
Client Contact: Jon Walters
Planning ref: PA20/09145

Project background and site history

South Wheal Frances is a disused 19th century tin and copper mine located on the Great Flat Lode to the south of Piece. It lies within the Camborne and Redruth mining district of the World Heritage Site for Cornish mining. The Miners' Dry is a Grade II Listed Building dating to 1908 and it is located to the south of the other mine buildings at NGR SW 68110 39335 (Figs 1 and 2).

Conditional Listed Building Consent has now been granted for various repairs to the Miners' Dry including replacement of lintels and missing masonry as well as repointing and capping.

The Senior Development Officer (Historic Environment) Cornwall Council has requested that a historic building record (equivalent to a Historic England Level 2/3 survey) should be made of the building in order to obtain a record of the building prior to repairs. The SDOHE has also requested that a record is made of the affected parts of the building after the completion of the repair works.

Condition 3 of the Listed Building Consent for PA20/09145 is as follows:

A) No works shall take place until a programme of historic building recording including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions, and:

- 1. The programme and methodology of site investigation and recording*
- 2. The programme for post investigation assessment*
- 3. Provision to be made for analysis of the site investigation and recording*
- 4. Provision to be made for publication and dissemination of the analysis and records of the site investigation*
- 5. Provision to be made for archive deposition of the analysis and records of the site investigation*
- 6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation*

B) No works shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The historic building recording condition will normally only be discharged when all elements of the WSI including on site works, analysis, report, publication (where applicable) and archive work has been completed.

Reason: To safeguard the historic significance of the site in accordance with the aims and intentions of Policy 24 of the Cornwall Local Plan Strategic Policies 2010 - 2030 and paragraph 199 of the NPPF (2019).

A pre-commencement condition is necessary in this instance due to the need to ensure that a programme and methodology of site investigation and recording of historical features is undertaken before physical works commence on site. This is in accordance with the provisions of NPPF (2019) Chapter 16, paragraph 199 and Policy 24 of the Cornwall Local Plan Strategic Policies 2010 - 2030.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record



Fig 1 Site location circled in red.



Fig 2 Location of the Miners' Dry, showing Listed Buildings in yellow and Scheduled Monuments hatched in red.

Project extent

The extent of the development area includes the Miners' Dry and its immediate environs shown on Figure 2.

Aims and objectives

The principal aim of the study is to create a detailed record of the building prior to alterations and also to create a record after the completion of the works.

The objectives are to:

- Produce an accurate record of the building along with its fabric, fixtures and fittings (Level 2 or 3 as appropriate and as defined by Historic England 2016).
- Create a phased historic development for the building.
- Produce a record of the completed repairs.

Working methods

All recording work will be undertaken according to the Chartered Institute for Archaeologists (CIfA) guidance (CIfA 2014; 2014a; 2014b; 2014c; 2017). Staff will follow the CIfA *Code of Conduct* (2014d). The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Archive research

This stage of the project will assemble information from existing archives and records and carry out research on other accessible and relevant primary and secondary documentary and map sources.

Archives to be consulted for documentary sources, including maps and pictorial material, will be limited to those that are directly relevant and available.

Copies of maps from each historic period will be used where available and copyright permits to show the evolution of the building.

Pre-fieldwork

In advance of the fieldwork CAU, will discuss and agree with the client:

- Working methods and programme.
- Health and Safety issues and requirements.

Fieldwork: Historic Building record

A historic building record (equivalent to a Historic England level 2/3 survey) will be undertaken prior to the repair works.

- A measured ground floor plan of the building will be created as far as Health and Safety requirements permit. Measured detail will be added to the drawings along with annotations to provide details of both historic development and fabric.
- Colour photographs of all exterior elevations and interior room spaces along with architectural details will be taken with a digital camera (at a resolution of 10 million pixels or higher). These will form the archive. Photographs will include a metric scale bar, except where Health and Safety considerations make this impractical. Particular focus will be given to the areas of alterations/repairs.
- Descriptions of the exterior and interior will be made in note form and by annotation of the plan to record their fabric and construction, phased development through time and architectural details. The interiors will be described room by room. Particular attention will be given to recording the areas of alterations/repairs.

A record will also be made of the building following the completion of the repair works. This will include a photographic record of the areas which have undergone repairs along with descriptions of materials, methods and styles used.

Creation of the physical and digital archive

The results from the fieldwork will be collated as an archive.

This will involve the following.

- All records (drawings, photographs, etc.) will be ordered, catalogued and stored in an appropriate manner (according to CAU guidelines).
- Colour digital images taken as part of the site archive will be deposited with the Archaeology Data Service (ADS).
- Measured and phase drawings will be created.
- Completion of the Historic England/ADS OASIS online archive index.
- All correspondence relating to the project, the WSI, and a single paper copy of the report, stored in an archive standard (acid-free) documentation box.
- Drawn archive storage (plastic wallets for the annotated record drawings).
- Additional digital data (survey, external reports, etc).

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

- The project archive will be deposited initially at ReStore PLC, Liskeard and at CAU premises until a suitable repository is found.
- Digital data will be stored on the Cornwall Council network which is regularly and frequently backed up.
- Digital data (CAU reports, external reports, survey data, geophysics data, digital photographs, etc) forming part of the site archive will be deposited with the ADS.

CAU uses the following file formats for stored digital data:

DOCX	Word processed documents
XLSX	Spreadsheets
PDF	Exports of completed documents/reports/graphics
JPG	Site graphics and scanned information
DNG or TIF	Digital photographs
DWG	AutoCAD drawings, measured surveys
MXD	ArcView GIS (electronic mapping) data
AI	Adobe Illustrator graphics

Reporting

The results from the project will be drawn together and presented in a report. The scope of the report will be dependent on the scale and significance of the results from the project.

The report will include the following elements:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Site history
- Phased historic development

- Building description and results
- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, elevations, sections, photographs, photo direction plan for the historic building record
- The WSI will be added to the archive report as the final appendix.

Timetable

The study is anticipated to commence during May 2021. CAU will require at least 2 weeks' notice before commencement of work, in order to allocate field staff and arrange other logistics.

The archive report will be completed within 4 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the Senior Development Officer (Historic Environment) (SDOHE). Where the SDOHE is satisfied with the archive report and the deposition of the archive, written discharge of the planning condition will be expected.

- Approval of the WSI is required from the SDOHE before commencement of the works.
- The SDOHE will monitor the work and should be kept regularly informed of progress.
- Notification of the start of work shall be given to the SDOHE.
- Any variations to the WSI will be agreed with the SDOHE, in writing, prior to them being carried out.
- If significant detail is discovered, all works must cease, and a meeting convened with the client and the SDOHE to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

References

CIfA, 2014. *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*, CIfA, Reading

CIfA, 2014a. *Standard and guidance for archaeological field evaluation*, CIfA, Reading

CIfA, 2014b. *Standard and guidance for an archaeological watching brief*, CIfA, Reading

CIfA, 2014c. *Standard and guidance for archaeological excavation*, CIfA, Reading

CIfA, 2014d. *Code of Conduct*, CIfA, Reading

CIfA, 2017. *Standard and guidance for historic environment desk-based assessment*, CIfA, Reading

Historic England 2016. *Understanding Historic Buildings: A guide to good recording practice*. Historic England, Swindon

Historic England 2015. *Guidance note on Digital Image Capture and File Storage*. Historic England, Swindon.

Cornwall Archaeological Unit

Cornwall Archaeological Unit is part of Cornwall Council. CAU employs 12 project staff with a broad range of expertise, undertaking around 120 projects each year.

CAU is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Heritage Impact Assessments/Heritage Statements
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards



CAU is a Registered Organisation with the Chartered Institute for Archaeologists and follows their Standards and Code of Conduct.

<http://www.archaeologists.net/codes/ifa>

Terms and conditions

Contract

CAU is part of Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of CAU and will be presented in good faith on the basis of professional judgement and on information currently available.

Project staff

The project will be managed by Jo Sturgess who will:

- Discuss and agree the objectives and programme of each stage of the project with the client, the SDOHE and other field officers, including arrangements for health and safety.
- Monitor progress and results for each stage.
- Liaise with the client, the SDOHE regarding related issues.

Work will be carried out by CAU field staff. All staff will follow CAU's Health and Safety Policy and work in accordance with a site-specific risk assessment.

The project team is expected to include:

Jo Sturgess BA, MCIfA

Senior Archaeologist at CAU with a wide range of experience in recording historic buildings, landscapes, excavation, post-excavation and characterisation. Past historic building works have included Lanhydrock House (Cornwall), Port Eliot (Cornwall), Arlington Court (Devon), Bradley Manor (Devon), Buckland Abbey (Devon), Cutmadoc

Farmhouse (Cornwall), the Piggery and Cider House at Godolphin (Cornwall), Poltesco Mill House (Cornwall), Molenick Farmhouse (Tideford), City Wharf (Truro), Harvey's Foundry (Hayle), Boswednack Serpentine works; Porthmeor farm; Bartle's Foundry (Pool), Manor Tannery (Grampound) Duchy Palace (Lostwithiel) and variety of mine buildings, farm buildings and industrial buildings. Other projects include Devon Extensive Urban Survey, Gwithian's past excavations, Lemon Quay excavation, Goonhilly Earth Station survey, Lower Boscawell and Trevesa in West Penwith landscape surveys. Expertise includes use of Total Station, CAD software and GIS. Holder of a CSCS card and qualified first aider.

Connor Motley BA (Hons)

Assistant Archaeologist Connor joined the team in 2019 after graduating from the University of York with BA (Hons) in Archaeology. Connor is experienced in archival research and has a good working knowledge of architectural and building history. He has a wide range of archaeological experience having partaken in surveys, excavations and post-excavation in England, Wales and Cornwall. Since joining he has been assisting with historic building projects using software such as GIS and AutoCAD.

Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client.

Copyright

Copyright of this Written Scheme of Investigation will be reserved to Cornwall Archaeological Unit, Cornwall Council. It may only be used/reproduced with permission from Cornwall Archaeological Unit.

Existing copyrights of external sources will be acknowledged where required.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

CAU will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received CAU may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

CAU follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out on-site work CAU will carry out a site-specific Risk Assessment tailored to follow Covid-19 restrictions.

Insurance

CAU is covered by Cornwall Council's Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £10m.

Miner's Dry, South Wheal Frances, Piece, Cornwall, Historic Building Record

Cornwall Archaeological Unit

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