Chichester and District Archaeology Society

An intertidal fourteenth century fish trap at Medmerry East, Sidlesham, West Sussex

Mike Kallaway, August 2026

1. Summary

A section of a post and wattle fish trap exposed at low tide on the shore of Medmerry near Selsey, West Sussex has been dated to the mid Fourteenth Century. Although only a small section of the fish trap was located it is clearly of the "pound and leader" type. It operated on the same principle as the two at East Head, West Wittering (Peter Murphy, 2023). This type of trap is only known in England in the Solent area, although similar examples have been recorded in Northern France.

The fish trap is around 50 metres to the East of a much larger V-Shaped fish trap (Peter Murphy et al, 2023).

Looking at the radiocarbon dates for the three fish traps mentioned here indicates that this style of fishing was in use along this section of coast from the 14th to 16th centuries. If we add in the Anglo-Saxon fish trap recorded by ASE (Stephenson, P. and Krawiec, K. 2019) as part of the Medmerry Realignment Scheme the period of this type of activity extends to from the 10th to 16th centuries.

2. Introduction

Following the breach in the sea defences created in 2013 as part of the Medmerry Managed Realignment Scheme Chichester and District Archaeology Society (CDAS) has been recording archaeology exposed by the retreating shoreline. CDAS has recorded a number of significant archaeological features including fish traps, the remains of a 19th Century Coastguard Station and of a Cromwell tank.

The section of fish trap was first observed by CDAS Member Peter King in 2024 and a follow up visit by CDAS was made in October of that year. At first, it was not clear what the 10metre long collection of posts and wattling might be. The location of the site is shown in Figs 1 & 2.

Fig 1 Location of site shown on OS Map 1:50,000. Contains OS data © Crown copyright and database right 2026

Fig 2 Location of site shown on OS Map 1:25,000. Contains OS data © Crown copyright and database right 2026

It is very close to the granite block sea defences bordering the West Sands Holiday Park.

3. Fieldwork

Following the visit in October 2024 a return visit was planned for late April 2025, when the tide was very low, to make a survey and photographic record of the site. The author, Peter King, Jeff Lander and Anne de Potier from CDAS returned to the site on 29th April 2025. Compared to the

previous sighting in October 2024 more of the site was exposed in particular a number of posts arranged in a part circle. It became clear at this point that the structure was probably a fish trap of the “Pound and Leader” variety. The overall length of the fish trap is about 10metres, with the leader orientated roughly North – South.

The posts were driven into the intertidal mud which is grey-brown with a firm clay like consistency. The surface is very slippery and great care was needed when walking around the site.

A number of photos were taken and these are shown below.

Fig 3 Posts and Wattling at North end

F9g 4 Part circle of posts at South end

Fig 5 view looking north east from the “pound.”

Fig 6 View looking north from the “pound”

The rope visible on Figs 4, 5 & 6 when pulled taught was used as an axis for a sketch of the site

As can be seen from the photos there is very little wattling along most of the structure. The most concentrated section is at the northern end, see Fig 3. For most of the structure only the uprights are visible.

The diameter of the posts varied from about 70mm to 120mm. These measurements are likely to be somewhat smaller than the original size due to erosion in the channel. Four wood samples were gathered from posts for possible radio carbon dating. They were stored in sealed bags in a domestic freezer in anticipation of future testing.

The GPS locations of the posts were recorded by Mark Roberts using a Leica GNSS Rover. M and plotted using QGIS see Fig 7. A best fit circle to the posts at the southern end of the structure has been added to highlight the “pound”. The diameter of the best fit circle and hence pound is 3.9metres.

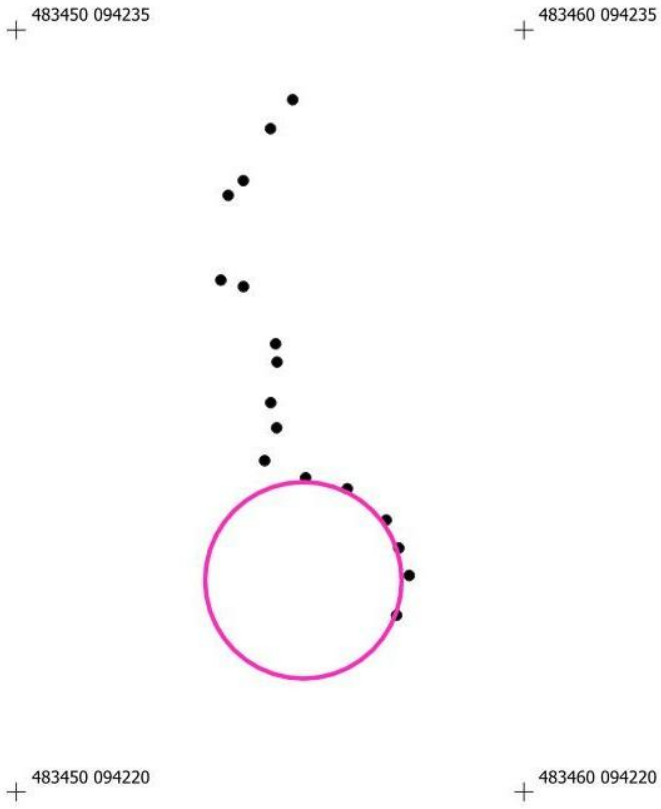


Fig 7 GPS Locations of posts plotted on QGIS with best fit circle added at the southern end to highlight the pound

In Fig 8 the details captured by the on-site sketch have been combined with the GPS data to create a schematic view of the site. This shows the location of the wattling and the wood samples gathered for radiocarbon dating.

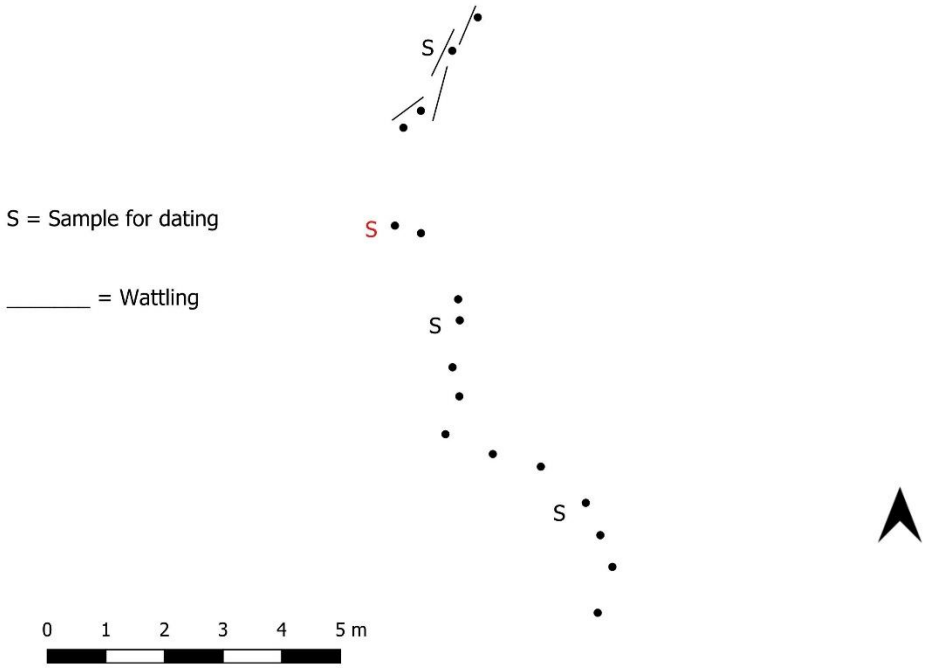


Fig 8 Schematic view of posts, wattling and location of samples collected for radiocarbon dating.

As mentioned earlier the fish trap lies approximately 50 metres to the east of a much larger fish trap. Fig 9 shows the relationship between the two structures.

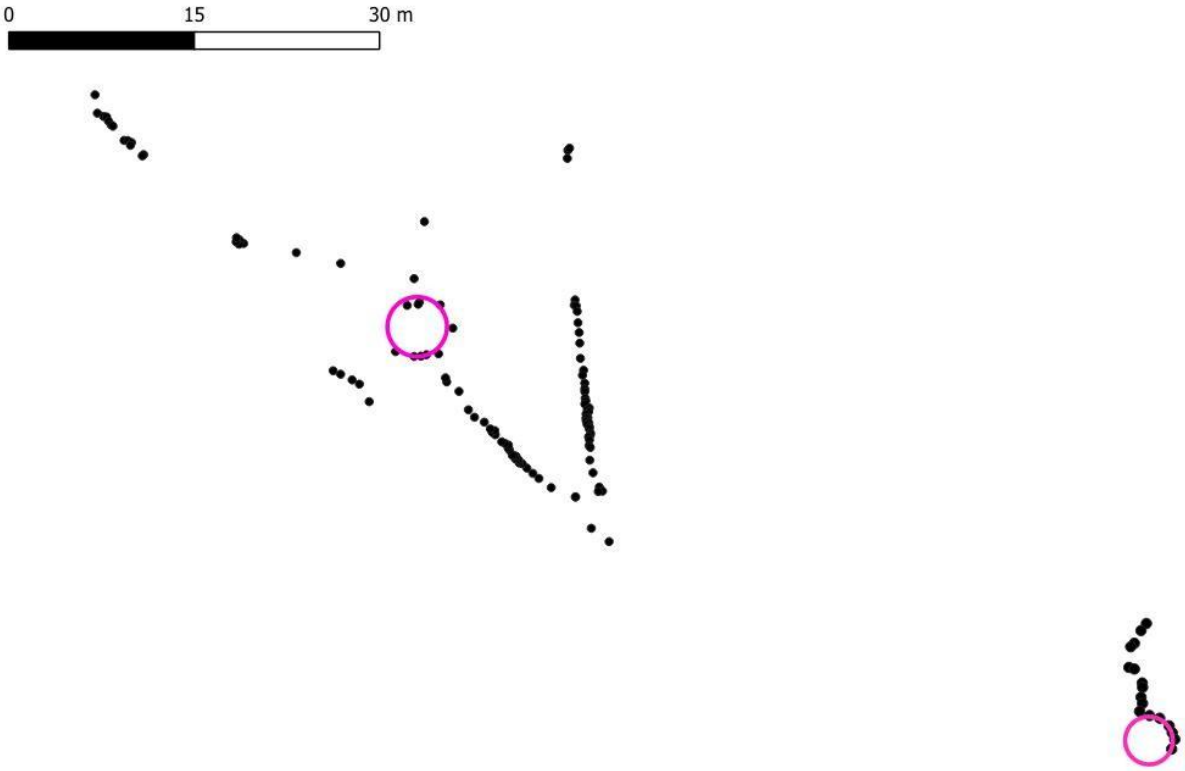


Fig 9 Relationship between fish trap and the much larger fish trap to its west. In both cases the pounds have been highlighted by best fit circles.

4. Dating

CDAS with its limited resources was unable to fund radiocarbon dating. Consequently, a search was undertaken for suitable partners.

We were made aware of the Community Archaeology Radiocarbon Dating (CARD) Fund and applied for funding to radiocarbon date one sample in November 2025. In December 2025 we were informed that we had been successful. Samples were sent and with the results from a single sample expected in June 2026. The location of the single sample tested is shown by the red S in Fig 8.

The full results from the samples sent to CARD are shown in the Appendix. A summary of the results is shown in Table 1 below. The samples were tested by the University of Glasgow.

Table 1: Radiocarbon dating results.

SUERC code	Context	Material	δ ^{13}C	Radiocarbon age	Calibrated radiocarbon age 95.4% probability	Calibrated radiocarbon age 68.3% probability
SUERC-139016 (GU74355)	Post 13	Wood: Birch (*Betula* sp.)	-26.9 ‰	677 ± 21 yr BP	1277 – 1388 cal. AD	1285 – 1378 cal. AD

The results indicate a date of early to mid-14th Century. However, with only a single date we cannot infer when the trap was constructed or the time period when it was in use. We can only say that it was likely to be in use around that date. We cannot be sure if the post was original or one that had been replaced due to “wear and tear”.

The wood sample that was dated was Birch which also occurs in the adjacent large fish trap but infrequently.

Peter King made a further visit to the site in March 2026 and no trace of the fish trap could be seen.

Discussion

Although there was only a limited section of the structure to record it is fairly certain that it is the remnant of a “pound and leader” fish trap. Originally there would have been another leader probably running SE to NW at an angle of around 50 to 70 degrees to the remaining leader. No trace of that has been seen.

Whilst no examples of this type of fish trap are found in the English Channel today, there is an engraving of one in 18th Century France, Fig 10. As can be seen it is a substantial structure with leaders tens of metres long.

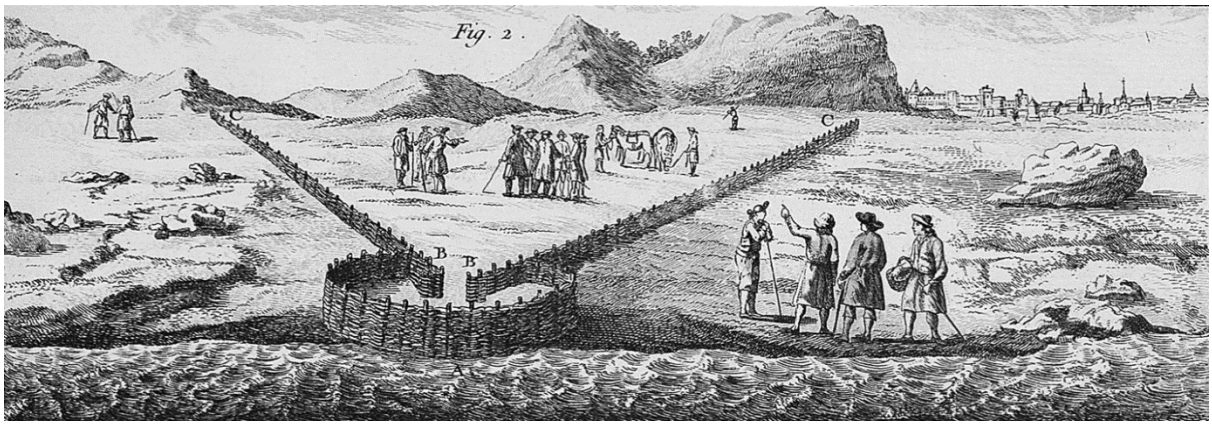


Fig 10 Example of 18th C Fish Trap in Northern France with pound. Duhamel du Monceau’s *Traité général des pesches* (1765: 1.2 pl. 24)

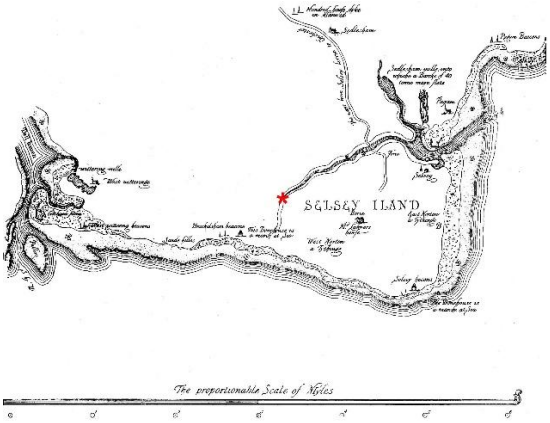
The diameter of the pound at 3.9metres is smaller than the one in the adjacent large fish trap at 4.8metres and the two at East Head that measure just over 7 metres and just over 5 metres respectively. Of the three fish traps that CDAS has recorded the one at Medmerry East is the oldest dating from the 14th Century followed by the large fish trap which is 15th Century and the two at East Head which are 16th Century. It is interesting to note that the pounds get larger as time progresses. This may have been a deliberate evolution of the design or just chance.

In operation the fish trap would have been largely submerged at high tide allowing fish to swim beyond the leaders. As the tide receded the water would drain in a channel guiding the fish caught between the leaders into the pound. The position of the trap and the leaders would have to be carefully chosen to align with the outflow of the tide. Significant time and resources would have been needed to build and operate the fish trap so significant care must have been taken to construct them in the optimum position.

If the outflow changed significantly then the trap would have to be moved/adjusted accordingly.

The fact that there is a more recent trap just 50 metres to its west suggests that the outflow channel was moving to the west over time.

Although there is no map of the area from the 14th Century, there are maps from 1587 and 1724 see Figs 11 & 12



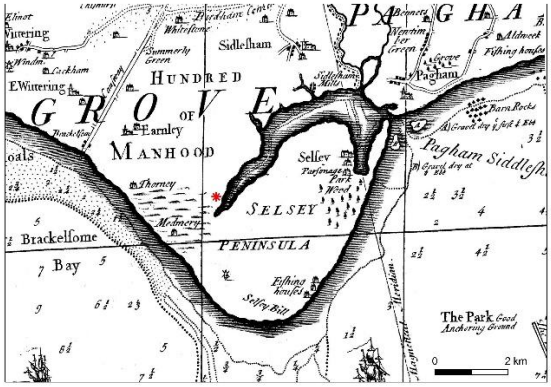


Fig 11 1587 map from Palmer and Calvert Fig 12 1724 map from Richard Budgen

In both cases the fish trap is shown, as a red asterisk, near a channel that drained into Pagham Harbour. It is likely that the position of the channel was similar in the fourteenth century,

5. Conclusion

Looking at the radiocarbon dates for the three fish traps mentioned here indicates that this style of fishing was in use along this section of coast from the fourteenth to sixteenth centuries. It could well have been a major source of fish for the local population.

Archaeology South East (ASE) as part of the investigations conducted during the Medmerry Managed Realignment Scheme (Stephenson, P. and Krawiec, K. 2019) identified a similar structure dated CE 720-900. It lies about 1km north of the current fish trap within the same drainage area. This date is similar to that of the fish traps found at Ashlett Creek in Southampton Water. (Cooper et al. 2017). Adding these two sites into the equation extends the date range from the 8th to 16th centuries, a period of 800 years.

The geographical and age distribution of this type of trap is interesting. It shows that coastal communities, living similar lives, were closely connected, so ideas spread. The design of the fish traps remained essentially the same for a period of 800 years. Each trap could have been in use for a long period with regular repairs. This could imply that the knowledge of the design and operation remained embedded in the coastal communities throughout this period. Without written or archaeological evidence this cannot be confirmed.

Acknowledgements

Emma Aitken of Community Archaeology Radiocarbon Dating Fund (CARD) for assisting with securing funding for Radiocarbon Dating and selecting the sample to be tested.

Seal Bay Resorts for allowing CDAS to access the fish trap from their site

Mark Roberts and Greg Priestley-Bell for GPS Recording the position of the posts

Peter King for maintaining a watching brief on the site

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Appendix

Radiocarbon Dating

A single sample was submitted for radiocarbon dating from archaeological and palaeoenvironmental deposits at Medmerry Fish Traps. The sample consisted of wood identified as Birch (*Betula* sp.). The sample was submitted to the Scottish Universities Environmental Research Centre (SUERC) laboratory. The samples were processed as described by Dunbar *et al*. (2016) and measured by Accelerated Mass Spectrometry (AMS). The SUERC laboratory maintains rigorous internal quality assurance procedures and participates in international inter-comparisons (Scott 2003; Scott *et al*. 1998; 2010) indicating no laboratory offsets, validating the measurement precision quoted for the radiocarbon ages.

The radiocarbon results are given in Table 1. The uncalibrated dates are conventional radiocarbon ages (Stuiver and Polach 1977), quoted according to the international standard set at the Trondheim Convention (Stuiver and Kra 1986). The radiocarbon ages have been calibrated using the IntCal20 calibration curve (Reimer *et al.* 2020. The OxCal v4.4.4 (Bronk Ramsey 2009, Bronk Ramsey 2021) computer program was used for all calibrations. The date ranges have been calculated using the maximum intercept method (Stuiver and Reimer 1986), and quoted with the end points rounded outward to 10 years.

References

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RADIOCARBON DATING CERTIFICATE

01 June 2026

Laboratory Code	SUERC-139016 (GU74355)
Submitter	Emma Aitken Archaeological Research Services Angel House Portland Square Bakewell Derbyshire DE45 1HB
Site Reference	Medmerry Fish Traps
Context Reference	Post 13
Sample Reference	Medmerry East Fish Trap. Post 13
Material	Wood : Birch (Betula sp.)
$\delta^{13}C$ relative to VPDB	-26.9 ‰

Radiocarbon Age BP 677 ± 21

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

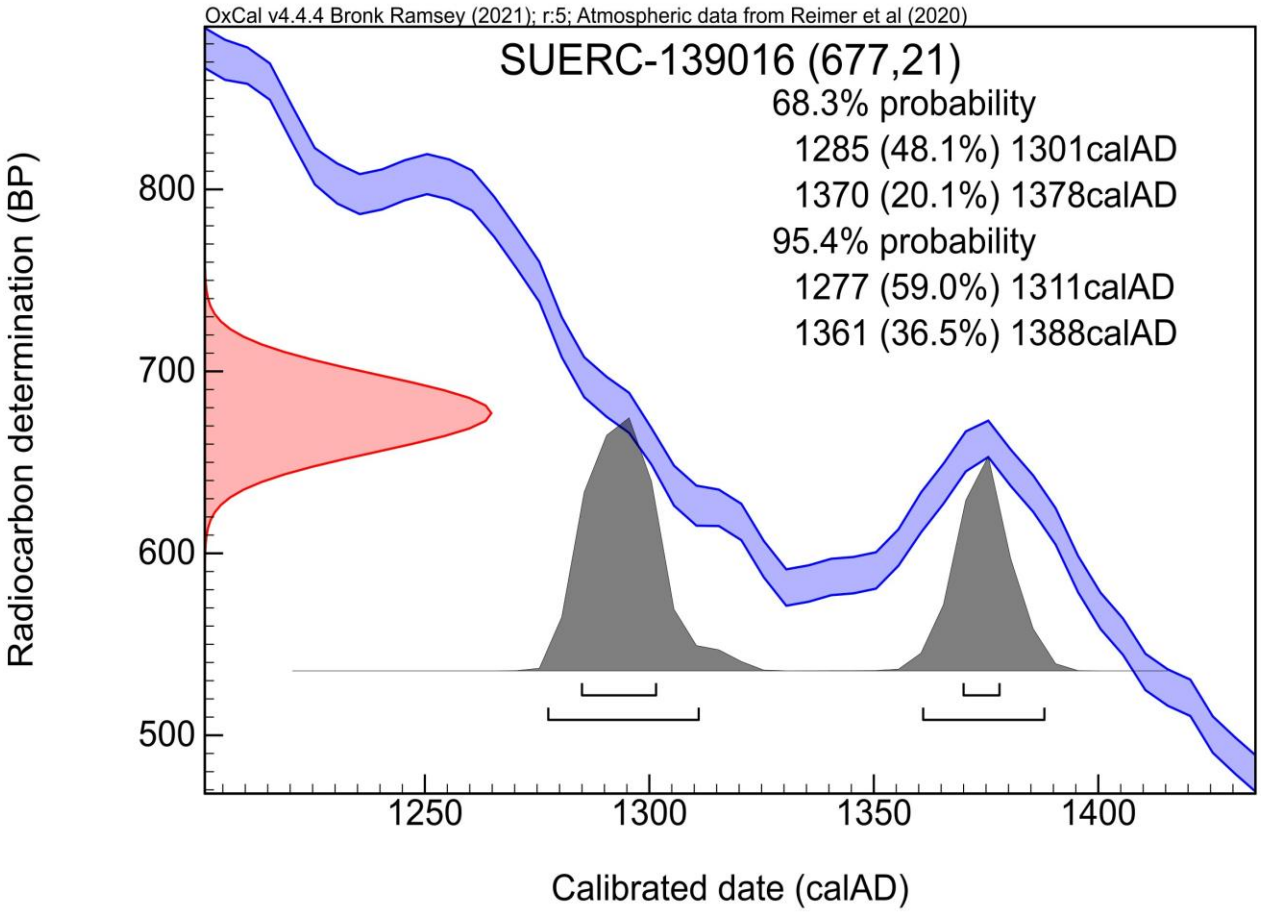
Samples with a SUERC coding are measured at the SUERC AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon 58(1) pp.9-23.*

For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

Checked and signed off by :



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal20 atmospheric calibration curve.†
Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon 51(1) pp.337-60*
† Reimer et al. (2020) *Radiocarbon 62(4) pp.725-57*