

# CFA Archaeology Ltd

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## **Kinross Growth Area Water Pipeline: Lethangie Ice House, Kinross, Perth & Kinross**

### **Archaeological Watching Brief Report No. 2100**

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standard operating procedures.

**Kinross Growth Area Gravity Sewer:  
Lethangie Ice House, Kinross,  
Perth & Kinross**

**Archaeological Watching Brief  
Report No. 2100**

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## **1. INTRODUCTION**

### **1.1 General**

This report presents the results of an archaeological watching brief undertaken by CFA Archaeology Ltd (CFA) on 26 and 30 July 2012 during the excavation of a trench for a new gravity sewer at Lethangie, to the north-east of Kinross (NGR: NO 1199 0355, Fig. 1). The work was commissioned by Scottish Water Solutions Ltd.

A Written Scheme of Investigation (WSI) was produced by CFA on behalf of Scottish Water Solutions. The WSI was designed to fulfil the requirements of the Perth & Kinross Heritage Trust (PKHT).

### **1.2 Background**

A new gravity sewer is being constructed from Milnathort Waste Water Treatment Works just east of Lethangie House to Kinross High School adjacent to the A922 on the northern edge of Kinross. The route appeared to cross the location of a buried tunnel structure thought to be part of the Lethangie Ice House (PKHT SMR No: MPK12260).

The Ordnance Survey 25 inch Second Edition map (1896) shows a rectangular feature to the north of the road. The feature is not annotated and no Ice House is shown in the area. This feature is not shown on the First (1857) or Third (1915) Edition maps.

### **1.3 Objectives**

The objectives of the watching brief were:

- To conduct an appropriate programme of archaeological investigation (watching brief) during the excavation of the sewer track as it crosses the buried tunnel and to provide a written description, photographic record and drawn section / profile of the tunnel where it is cut through.

## **2. WORKING METHODS**

### **2.1 General**

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Fieldwork. Recording of all elements followed established CFA methods, as detailed in the approved WSI.

### **2.2 Archaeological Watching Brief**

The terms of the WSI required a watching brief to be maintained during the excavation of the sewer track where it was presumed to cross the buried tunnel.

The plan of the route provided by Scottish Water shows the gravity sewer to run along the road-side verge. The actual sewer route ran through the field on the northern side of the road. The location where the tunnel passed under the road was marked with a wooden post.

Where it passed this point, the trench was excavated using a tracked excavator with a toothless bucket, under constant archaeological supervision.

## **3. ARCHAEOLOGICAL RESULTS**

The tunnel crosses under the road (Fig. 1) from NO 11997 03545 (southern side) to NO 11996 03553 (northern side).

Topsoil (**006**) had been previously removed from the wayleave to a width of c.10m. The sewer trench was excavated under archaeological supervision from NO 11989 03557 (western end) to NO 12010 03563 (eastern end). The trench was stepped, with a surface width of c.3m and depth of 1.2m.

Fig. 2 shows the route of the gravity sewer from the manhole towards where the road-side wall would be dismantled. Stonework was exposed in the edge of the trench and the adjacent area was cleaned to reveal the feature (Fig. 3).

The upper levels of a flight of steps were exposed. The feature was cut (**001**) into natural subsoil (**003**), with the sides being faced with mortar-bonded red sandstone rubble (**002**). The steps (**004**) were finely cut from yellow sandstone. The feature had been filled in with sterile grey-brown soil (**005**).

The entrance to the tunnel on the southern side of the road is shown in Fig. 4. A shallow gully runs south from the tunnel towards the Fish Pond.

A few metres to the south-east of the entrance to the tunnel, the entrance to a possible Ice House was recorded (Fig. 5).

#### **4. CONCLUSION**

A watching brief was carried out during the excavation of a water main trench to the north of the Kinross to Lethangie road where it passes a feature which is shown on a map dated 1896. An arched tunnel / culvert, open at the southern end, passes under the road at this point.

The upper portion of a flight of steps was recorded, the location of which conforms to that of the tunnel. The rectangular feature shown on the 1896 map contains horizontal lines which may now be interpreted as the representation of steps. On cartographic evidence, this feature was filled in between 1896 and 1915.

The entrance to a possible Ice House was recorded adjacent to the southern end of the tunnel.

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the Perth and Kinross Council Sites and Monuments Record.

A summary statement of the results of this watching brief will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 3) and an online OASIS form will be completed.

## APPENDIX 1: Context Register

Context No.	Description
001	Linear cut into natural
002	Lime mortar-bonded red sandstone walls lining cut 001
003	Natural subsoil, laminated iron-stained sands and gravels with lenses of pinkish-grey silt
004	Finely dressed yellow sandstone steps
005	Grey-brown sandy-silt soil with occasional small stones
006	Topsoil

## APPENDIX 2: Photographic Register

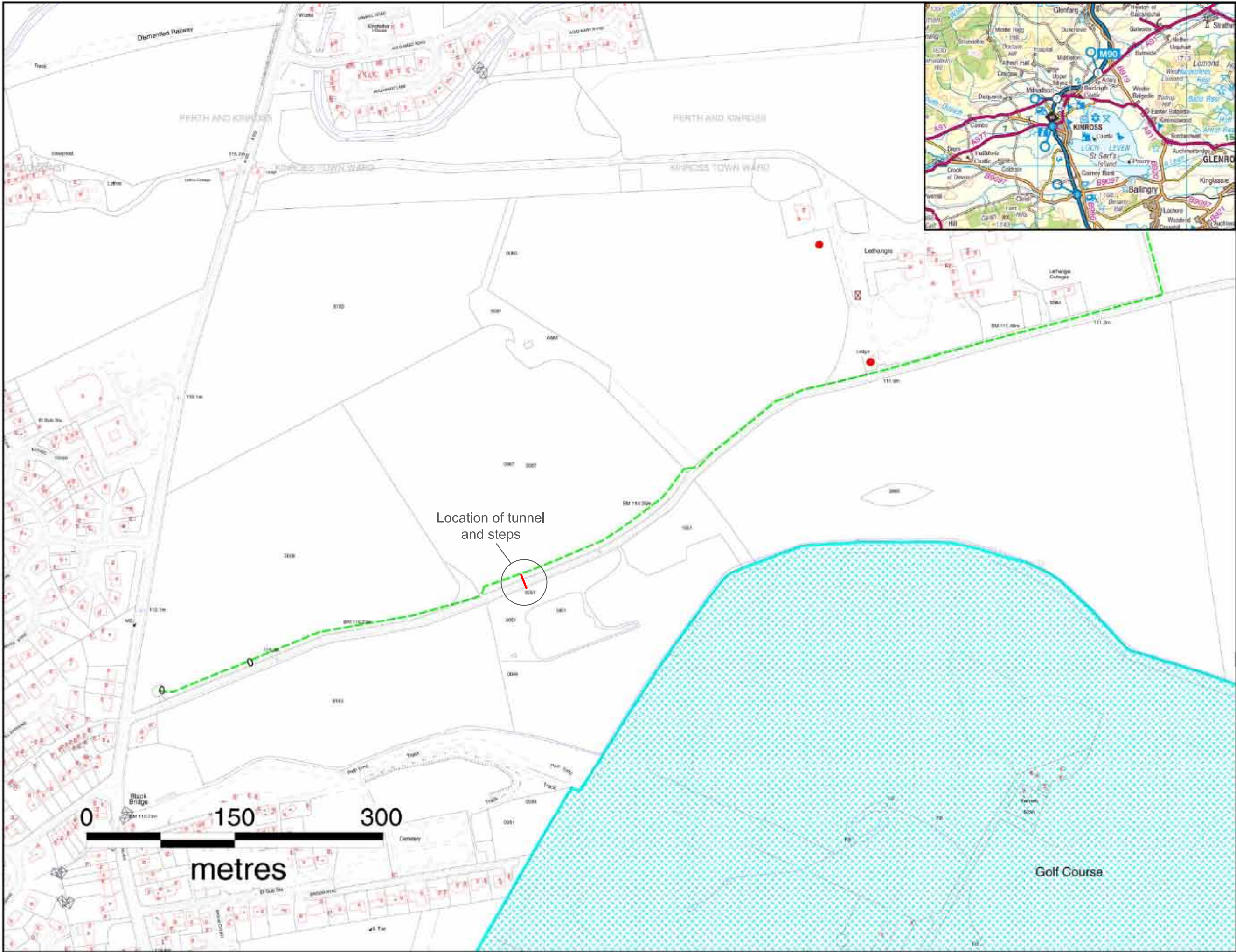
### *Digital Images*

Number	Description	From	Conditions
1	Sewer trench excavated 26/07/12	NE	Bright
2	Sewer trench excavated. The red peg marks the location where the tunnel crosses under the road	NNW	Bright
3	Sewer trench excavated	W	Bright
4	Sewer trench section	NNW	Bright
5	Sewer trench excavated	E	Bright
6-8	The entrance to the tunnel below the southern road-side wall	SSE	Bright/Dull
9	The entrance to the tunnel below the southern road-side wall	SW	Bright/Dull
10	View of the entrance to the ice-house from the entrance to the tunnel	W	Dull
11-12	The entrance to the ice house	SW	Dull
13	The interior of the ice house	SW	Flash
14-15	The interior of the tunnel	SSE	Flash
16-18	General view of the ice-house entrance from the road-side verge	W	Dull
19-22	General views 30/07/12	-	Dull
23-25	The loose stone step	-	Dull
26-27	The pipe trench excavated and the stonework exposed pre-cleaning	NE/NNE	Sun/Shade
28	Steps 001-005 exposed and cleaned	SSE	Overcast
29-30	Steps 001-005 exposed and cleaned	NNW	Overcast
31-33	Steps 001-005 exposed and cleaned	NE	Overcast
34	Steps 001-005 exposed and cleaned	ENE	Overcast
35-36	Steps 001-005 exposed and cleaned	NNW	Overcast
37-39	Steps 001-005 exposed and cleaned	WSW	Overcast
40-42	Steps 001-005 exposed and cleaned including the NNW-facing section	NNW	Overcast
43	Steps 001-005 exposed and cleaned	NW	Overcast
44	Steps 001-005 exposed and cleaned	NE	Overcast

### APPENDIX 3: Discovery and Excavation in Scotland Entry

<b>LOCAL AUTHORITY:</b>	Perth and Kinross
<b>PROJECT TITLE/SITE NAME:</b>	Kinross Growth Area Gravity Sewer, Lethangie Ice House
<b>PROJECT CODE:</b>	LICE
<b>PARISH:</b>	Kinross
<b>NAME OF CONTRIBUTOR:</b>	Ian Suddaby
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	-
<b>SITE/MONUMENT TYPE(S):</b>	Ice House, tunnel and steps
<b>SIGNIFICANT FINDS:</b>	-
<b>NGR (2 letters, 10 figures)</b>	NO 11997 03545
<b>START DATE (this season)</b>	July 2012
<b>END DATE (this season)</b>	July 2012
<b>PREVIOUS WORK (incl. DES ref.)</b>	N/A
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	<p>A watching brief was carried out during the excavation of a gravity sewer trench to the north of the Kinross to Lethangie road where it passes a feature which is shown on a map dated 1896. An arched tunnel / culvert, open at the southern end, passes under the road at this point.</p> <p>The upper portion of a flight of steps was recorded, the location of which conforms to that of the tunnel. The rectangular feature shown on the 1896 map contains horizontal lines which may now be interpreted as the representation of steps. On cartographic evidence, this feature was filled in between 1896 and 1915.</p> <p>The entrance to a possible Ice House was recorded adjacent to the southern end of the tunnel.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	N/A
<b>SPONSOR OR FUNDING BODY:</b>	Scottish Water Solutions
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
<b>EMAIL ADDRESS:</b>	cfa@cfa-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	National Monuments Record of Scotland (archive) Perth and Kinross Sites and Monuments Record (report)





Key:

----- Indicative sewer route



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Fig. No:	1	Revision:	A
Title: Location map showing the sewer and the location of the tunnel			
Project: Kinross Growth Area Water Pipeline: Lethangie Ice House			
Client: Scottish Water Solutions			
Scale at A3: As shown			

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Checked: LW  
Report No: 2100







Fig. 2 - The route of the gravity sewer trench where it passes the top of the steps from the NE



Fig. 3 - The exposed steps adjacent to the sewer trench from the SW

Fig. No: <b>2-3</b>	Revision: <b>A</b>	Project: <b>Kinross Growth Area Water Pipeline: Lethangie Ice House</b>			 <div> <b>CFA ARCHAEOLOGY LTD</b>  The Old Engine House  Eskmills Park, Musselburgh  East Lothian, EH21 7PQ  T: 0131 273 4380  F: 0131 273 4381  e: info@cfa-archaeology.co.uk  w: www.cfa-archaeology.co.uk </div>
Drawn by: <b>LW</b>	Checked: <b>LW</b>	Report No: <b>2100</b>	Client: <b>Scottish Water Solutions</b>		

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