

# CFA Archaeology Ltd

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## **Muirhall South Wind Farm, South Lanarkshire**

### **Archaeological Watching Brief**

**Report No. 3354**

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# 1. INTRODUCTION

## 1.1 General

This report presents the results of a programme of archaeological mitigation works carried out by CFA Archaeology Ltd (CFA) during the construction of three wind turbines and associated infrastructure on land at Easteryardhouse Hill, South Lanarkshire (NGR: NT 0157 5137), adjacent to Muirhall Wind Farm and Muirhall Wind Farm Extension.

A Written Scheme of Investigation, dated 12 August 2015, was agreed in advance of works starting with the West of Scotland Archaeology Service (WoSAS).

## 1.2 Background

The Muirhall South Wind Farm will involve the erection of three 147m high wind turbines with associated infrastructure and ground works on land at Easteryardhouse Hill, South Lanarkshire (NGR: NT 0157 5137) (Fig. 1), adjacent to the existing Muirhall Wind Farm and Muirhall Wind Farm Extension.

Previous archaeological works undertaken by CFA identified several upstanding cultural heritage assets in the vicinity of Muirhall Wind Farm and Muirhall Wind Farm Extension. A Desk Based Assessment (DBA) and walkover survey of the Muirhall South site was also undertaken by CFA in advance of the Environmental Impact Assessment produced for the site. Numerous sites were discovered, including very large groupings of clearance cairns throughout the site. The construction of the wind farm and its infrastructure would put several of these sites at risk of damage, so a strategy was devised wherein the sites would be clearly marked out to avoid any construction impact.

Furthermore, due to the abundance of upstanding archaeological remains around the site, it was deemed likely that buried remains would also be present and liable to damage during groundworks. This potential damage was mitigated by an archaeological presence on site during excavations.

## 1.3 Objectives

The objectives were:

1. **Fencing-off Sites.** Sites 2a, 7a, 7b, 9s, 9t and 9m will be clearly identified and marked off with canes and bunting.
2. **Archaeological Watching Brief.** All groundbreaking work to be carried out under constant archaeological supervision.
3. **Tool box talk.** A tool box talk prepared by a senior archaeologist will be issued to all site personnel who may be working at sites referenced in points 1 and 2 above.

## **2. WORKING METHODS**

### **2.1 General**

CFA Archaeology Ltd follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidance.

### **2.2 Site Demarcation**

Sites 2a, 7a, 7b, 9s, 9t and 9m that lay within the vicinity of the groundworks were fenced off with canes and high visibility marker tape or nylon fencing, allowing for a 10m buffer from the extremities of the site.

### **2.3 Watching Brief**

A watching brief was required during all ground works for the construction of the wind farm including, but not limited to, turbine bases, crane hardstanding, cut access tracks, site compounds and borrow pits. All mechanical excavations were carried out under constant archaeological supervision, and machines were fitted with a smooth bladed ditching bucket. Any further excavations undertaken to assess potential archaeological remains were carried out by hand.

## **3. ARCHAEOLOGICAL RESULTS**

### **3.1 Site Demarcation**

Site numbers within this report pertain to site numbers recorded in the walkover survey and DBA, and listed in the EIA cultural heritage chapter. A full description of each site listed can be found in Appendix 3 at the rear of this report.

Sites 2a, 7a, 7b, 9s, 9t and 9m (Fig. 1) were all fenced off with canes and high visibility marker tape, or high visibility nylon mesh fencing accordingly (Fig. 4).

A cut access track to reach Turbine 11 was planned to pass through the location of the cairns, possibly impacting on two of them. Further revision of the plan resulted in the micro-routing of a floating road in this area, negating the need for archaeological mitigation works and preserving the cairns in situ.

### **3.2 Watching Brief**

The topography of the site consisted of undulating upland, with ground cover of heather and rough pasture (Fig. 4). Numbers in bold refer to contexts, a summary of which can be found in Appendix 2 at the rear of this report.

In all groundworks monitored, stratigraphy consisted of 0.3m to 0.4m of dark brown and black silty sand topsoil (**001**) overlying natural geological substrate (**000**) comprising mid orangey-brown clayey sand and sandy gravel. In isolated instances up to 0.2m of orange-brown sandy clay subsoil (**002**) was observed overlying natural

showing a diffuse horizon with the overlying topsoil (Figs. 2, 3). No buried archaeological remains were discovered during ground breaking works.

#### **4. CONCLUSIONS**

A programme of archaeological mitigation works was carried out by CFA Archaeology Ltd on behalf of Muirhall Energy Ltd, during the construction of three wind turbines as an extension of Muirhall Wind Farm in South Lanarkshire. Several sites which lay close to the development were demarcated in order to avoid damage by the ground breaking works in close vicinity. A number of small cairns were discovered close to the postulated route of an access track; this track was altered to avoid damaging the cairns. No archaeological remains were discovered during ground-breaking works.

The project archive, comprising all CFA digital data, record sheets, maps and reports, will be deposited with RCAHMS and copies of reports will be lodged with the South Lanarkshire Council Historic Environment Record.

The project will be reported through the online OASIS portal and a summary statement will be submitted for publication in *Discovery and Excavation in Scotland* (See Appendix 4).

## APPENDIX 1: Digital Photograph Register

Photo No.	Description	Taken from
1	General view of site area	W
2	Fencing at 2a and 2b	N
3	Field wall demolition at T9	E
4	Field wall demolition at T9	E
5	Field wall demolition and drainage ditch at T9	N
6	Field wall demolition and drainage ditch at T9	S
7	Field wall demolition and drainage ditch at T9	E
8	Field wall demolition and drainage ditch at T9	S
9	Fencing just N of 7a	S
10	Fencing below 7a	S
11	Fencing below 7a	S
12	Access road at junction to T9	N
13	Possible feature at T11	E
14	Mill stone broken above 7a	E
15	Mill stone -location shot	W
16	Mill stone with 1m scale	
17	T10 natural - at crane pad	SE
18	9m now to the left of access road	E
19	9m now to the left of access road	S
20	Possible feature - cairn see photo 13	E
21	Possible feature - excavated - not arch	S
22	Possible feature - excavated - not arch	E
23	9m location shot	W
24	9m location shot	S
25	9m (second feature) further W	S
26	9m both features fenced off	E
27	Location shot 9m on right - crane pad left	W
28	Natural in T11	W
29	Turbine base and crane pad at T11	W
30	9s -location of spoil heap	E
31	9s -location of spoil heap	E
32	Crane pad T11 and location of 9m	W

## APPENDIX 2: Context Register

Context	Description
000	Natural - Orangey brown clayey sand with bands of gravel
001	Topsoil - Dark brown sandy silt, with a depth of 0.3 to 0.4m
002	Subsoil - Dark orangey-brown sandy clay in isolated pockets and hollows, up to 0.2m in depth

### APPENDIX 3: Gazetteer of Sites

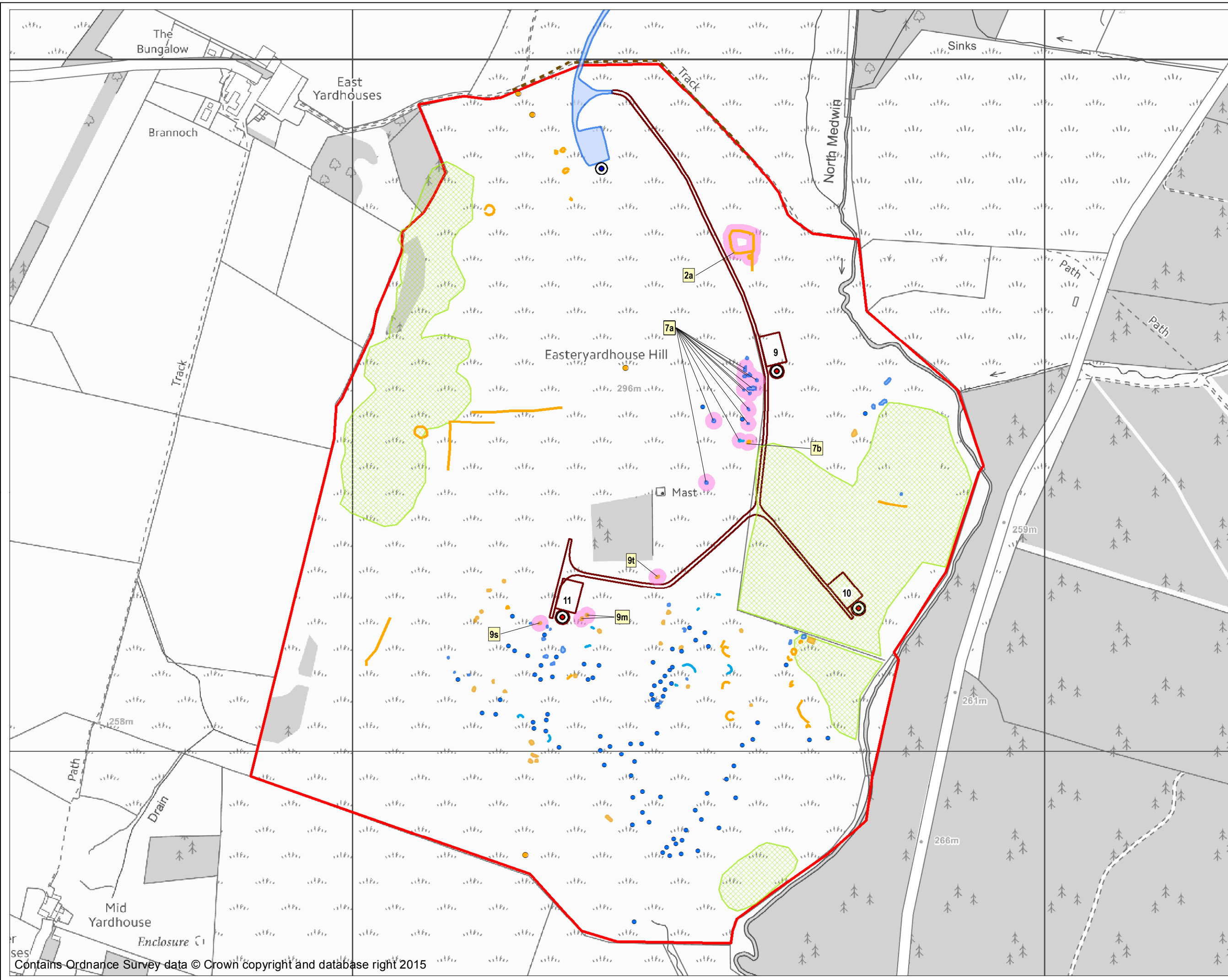
Site No.	HER/ RCAHMS No.	Easting	Northing	Description
2	66274	301601	651728	<p>The HER records that a sub-rectangular enclosure, about 730m ESE of East Yardhouses, is visible on modern aerial photography (Google™), enclosing an area of greener grass. Other traces of dykes/banks and cultivation remains are visible in the vicinity.</p> <p>Field survey found an enclosure and bank (<b>2a</b>) and possible structure (<b>2b</b>), lying on the edge of an area of drained bog/moorland ground:</p> <p><b>2a:</b> (301561 651736) an enclosure as described by the HER, formed by turf and stone banks, measuring 1.5m wide by 0.2m-0.4m high. Stone within the bank make-up is most visible on the western side; a ditch is visible on the inner edge of the bank on the eastern and southern sides. There is a break in the bank at the south-east corner of the enclosure, which may be an entrance. A section of bank extends in a southerly direction from the south-east corner for approximately 20m, and measures 1m-1.5m wide by 0.3m high.</p> <p><b>2b:</b> (301577 651712) a possible structure is visible to the immediate south of the south-eastern corner of the enclosure (<b>2a</b>). The visible structure measures 4m by 3m and is defined by denuded turf banks, 1.2m-1.5m wide by 0.2m-0.3m high.</p>
7	13892 / NT05SW 41	301550	651550	<p>The HER and the RCAHMS database record that a group of small cairns, measuring up to 5m in diameter, is situated on the east flank of Easteryardhouse Hill, well below the crest but above the line of an old stone dyke which is shown on the 1:10,000 map.</p> <p>A group of five possible cairns is visible on aerial photographs from 1949.</p> <p>Field survey found a group of clearance cairns (<b>7a</b>), and a small structure (<b>7b</b>), located on the lower east facing slopes of the hill within rough pasture grassland:</p> <p><b>7a:</b> a group of eight circular to sub-oval clearance cairns or heaps, which measure between 3m-5m in diameter and up to 0.7m in height. Some of the clearance cairns in this group are almost conjoined and form larger heaps. Six other cairns lie further to the south and south-west, three of which lie on higher ground further upslope. These cairns are circular to sub-circular, and measure between 1.5-3m in diameter and up to 0.5m high. All the cairns are turf-covered, with stone visible in places, and tumbled around where the ground has been disturbed by sheep and more recent farming activity.</p> <p><b>7b:</b> (301573 651446) a small sub-square possible structure 3.5m-4m across, defined by denuded low turf banks, 0.6m-0.8m wide by 0.2m high.</p>
9	4879 / NT05SW 22; NT05SW 45	301400	651000	<p>The HER and the RCAHMS database record that a group of about seventy cairns ranging from 2.5m to 5m in diameter and up to 0.7m in height lie on the southern flank of Easteryardhouse Hill, and centred 250m south of a plantation.</p> <p>One larger cairn, situated about 200m west of the North Medwin, measures 8.3m in diameter but has been reduced by</p>



Site No.	HER/ RCAHMS No.	Easting	Northing	Description
				<p>stone-robbing to a height of 0.3m. A short distance to the west there is a crescentic stony bank, 4m in thickness and up to 0.7m in height, which may be contemporary with the cairns.</p> <p>A visit by the OS (1979) recorded the site as covering about 20 hectares of the southern flank of Easteryardhouse Hill, and described that area as comprising large boulders and turf-covered stony mounds, which are probably field clearance heaps. There is nothing that can be positively identified as a burial cairn, the only structural remains being a ruined building or enclosure at 30150 65100 and a corn kiln at approximately 30150 65110. All of these features are probably contemporary and of no great age. The minor crescentic stony bank appears to be a linear clearance heap perhaps utilised as a sheep shelter. There is no evidence of field banks or lynchets in the apparently deep moorland turf layer on this hillslope.</p> <p>A later visit by the RCAHMS (1994) describes the site as previously, but that the alleged building or enclosure and corn kiln were not located on the date of visit. The RCAHMS recorded that immediately beyond the southern edge of the area of cairns there is a concentration of small quarries (NT05SW 45), in two of which there are the unfinished or broken remains of a small stone trough.</p> <p>Numerous cairns and four possible structures or buildings are visible on aerial photographs from 1949 and on modern aerial photography (Google™).</p> <p>Field survey identified a number of cairns (<b>9a</b>); 14 possible structures or buildings (<b>9b-9h, 9j, 9k, 9n-9q</b> and <b>9s</b>), nine small platforms (<b>9l, 9m, 9r</b> and <b>9v</b>), and three areas of quarrying (<b>9i</b> and <b>9t</b>):</p> <p><b>9m</b>: (301336 651194) the remains of two sub-circular platforms, 3.5m-4m in diameter, by 0.3m deep terraced into a south/south-west facing slope and open to the south-west, with the trace of a low wall on the northern edge of the northern most one</p> <p><b>9s</b>: (301271 651185) a possible structure or robbed out clearance cairn, 4m by 3.5m, defined by a sub-circular area of improved ground and low stony turf covered walls, 0.6m wide by 0.2m high.</p> <p><b>9t</b>: (301441 651252) a sub-rectangular cut, 4m by 2.5m by 1m deep, into a south-west facing slope, probably forming the remains of a quarry.</p>

## APPENDIX 4: Discovery and Excavation in Scotland Entry

<b>LOCAL AUTHORITY:</b>	South Lanarkshire Council
<b>PROJECT TITLE/SITE NAME:</b>	Muirhall South Wind Farm, South Lanarkshire: Archaeological Site Demarcation and Watching Brief
<b>PROJECT CODE:</b>	STAL2
<b>PARISH:</b>	Carnwath
<b>NAME OF CONTRIBUTOR:</b>	Ewan MacNeilage
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Site Demarcation and Watching Brief
<b>NMRS NO(S):</b>	
<b>SITE/MONUMENT TYPE(S):</b>	
<b>SIGNIFICANT FINDS:</b>	
<b>NGR (2 letters, 6 figures)</b>	NT 016 514
<b>START DATE (this season)</b>	September 2015
<b>END DATE (this season)</b>	October 2015
<b>PREVIOUS WORK (incl. DES ref.)</b>	
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	A programme of archaeological mitigation works was carried out by CFA Archaeology Ltd on behalf of Muirhall Energy Ltd, during the construction of three wind turbines as an extension of Muirhall Wind Farm in South Lanarkshire. Several sites which lay within where demarcated in order to avoid damage by the ground breaking works in close vicinity. A number of small cairns were discovered close to the postulated route of an access track; this track was altered to avoid damaging the cairns. No archaeological remains were discovered during ground-breaking works.
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING BODY:</b>	Muirhall Energy Ltd
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ.
<b>EMAIL ADDRESS:</b>	cfa@cfa-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited in NMRS, Reports lodged with SMR and NMRS.



- Key:**
- Consented Turbine Location
  - Proposed Turbine Location
  - Built Infrastructure
  - Proposed Infrastructure
  - Cultural Heritage (point)
  - Clearance Cairn (point)
  - Cultural Heritage (linear)
  - Track
  - Clearance Cairn (linear)
  - Cultural Heritage (area)
  - Clearance Cairn (area)
  - Rig and Furrow
  - Fenced-off Buffer 10m



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Fig. No: 1 Report No: 3354

Title:  
**Site plan showing position of fenced-off sites**

Project:  
**Muirhall South Wind Farm,  
 South Lanarkshire: Site  
 Demarcation and  
 Archaeological Watching Brief**

Client:  
**Muirhall Energy Ltd**

Scale at A3:  
**1:5,000**

Drawn by:	Checked:	Date:
GC	SW	02/12/2015

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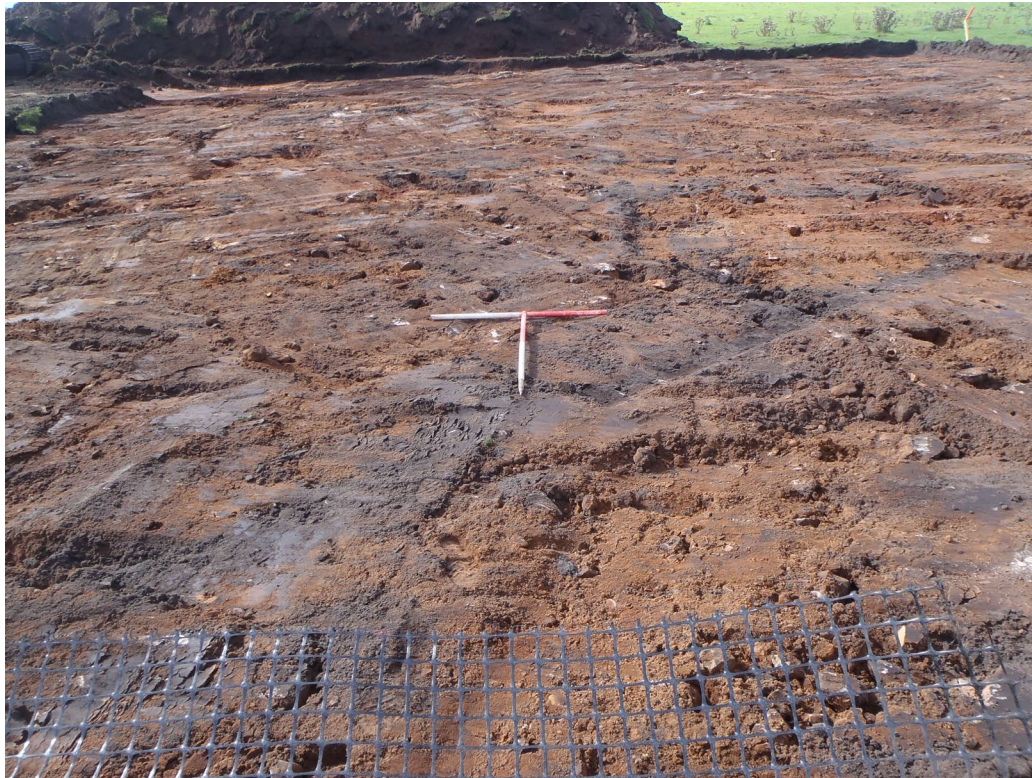


Fig. 2 Stripped topsoil at Turbine 10



Fig. 3 Access road at Turbine 9 junction



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Title:	Fig. 2 - 3	Report: 3354	Drawn: GC	CKD: SW	Date: 02/12/15
	Client: Muirhall Energy Ltd				
Project: Muirhall South Wind Farm, South Lanarkshire: Site Demarcation and Archaeological Watching Brief					



Fig. 4 Site 9 fenced off next to excavated Crane Pad at Turbine 11



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Title:	Fig. 4	Report: 3354	Drawn: GC	CKD: SW	Date: 02/12/15
Client: Muirhall Energy Ltd					
Project: Muirhall South Wind Farm, South Lanarkshire: Site Demarcation and Archaeological Watching Brief					