















COWIESLINN QUARRY, PEEBLES

Archaeological Watching Brief

for CEMEX UK Ltd

09/00468/MIN

April 2011





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HA Job No: CLQP10/002

NGR: NT 323290, 650589

Parish: Peebles Council: Lothian

OASIS ref.: headland1-94735

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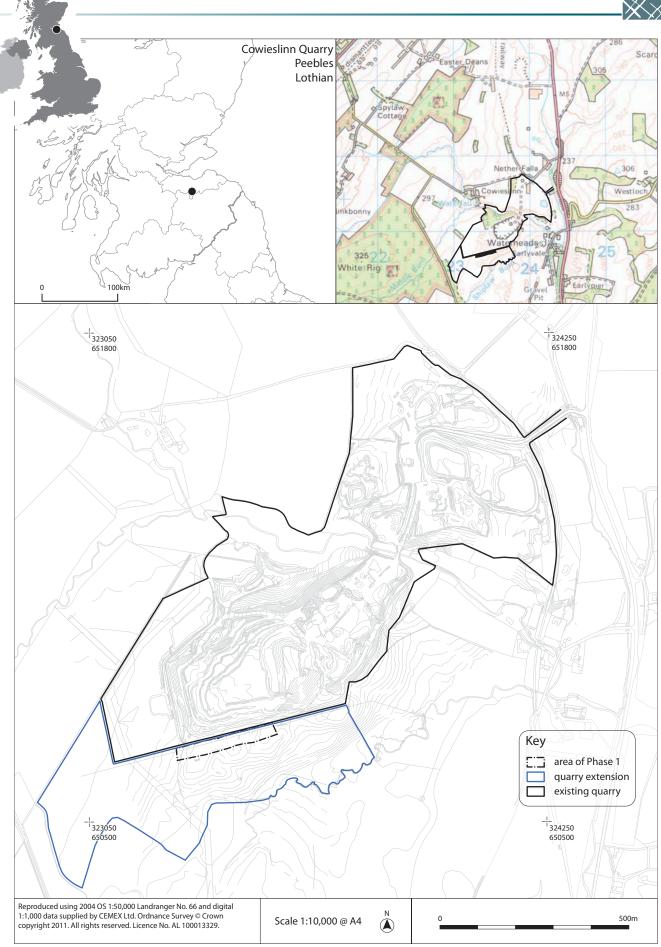
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Illus 1 Location plan

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COWIESLINN QUARRY, PEEBLES

Archaeological Watching Brief

Topsoil stripping in advance of an extension to Cowieslinn Quarry (Phase 1) was carried out under the conditions of an archaeological watching brief. No significant archaeological features or artefacts were recovered during this phase of monitoring. A small area of rig and furrow was noted close to the quarry face although on excavation this proved to be very shallow. An area of small quarry pits, thought to be of 19th century origin, was also partially stripped during this phase of works.

1. INTRODUCTION

1.1 Project background

Rock (greywacke) extraction by Cemex UK operations Ltd at Cowieslinn, Peebles has been ongoing for many years with planning consent for further extraction. The extension comprises a large area to the south and west of the existing quarry and will be undertaken in a number of phases. This report covers the works undertaken during Phase 1 of this operation. Additional phases of work are anticipated as the quarry continues to expand in years to come.

This phase covered an area approximately 7,300m² along the southern edge of the existing quarry (Illus 1). The site is located near Waterheads, west of the main A703 road, 8km south of Penicuik and 11km north of Peebles, (NGR: NT 323290, 650589) and lies between 235–280m AOD.

A desk-based study and walkover survey were carried as part of the Environmental Impact Assessment submitted in 2008 (Headland Archaeology). No significant archaeological features were identified in this study; however small areas of quarry pits and large spreads of rig and furrow were recorded. In view of the relatively large area covered by the extension, the potential for unrecorded archaeology was considered to be significant, and planning consent was granted with a condition that topsoil stripping should be carried out under an archaeological watching brief (Planning reference 09/00468/MIN, Condition No. 21).

In discussion with the Scottish Borders Council Archaeologist, it was agreed that the scheme of works would involve a watching brief during any ground breaking works accompanied by excavation and recording of any significant features which may be identified.

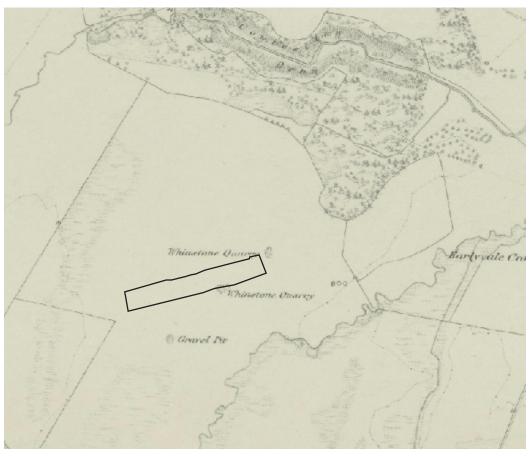
1

1.2 Archaeological background

A cultural heritage assessment had been undertaken by Headland Archaeology in 2008 as part of the proposed development's ES statement. The cultural heritage assessment identified areas of rig and furrow covering part of the site. The nature of these systems: long and straight with intervals of 4 to 5m between the furrows running parallel to the system of stone dykes, indicated a date in the late 18th and early 19th century period of agricultural improvement. The period in which the rig was created would have been dominated by small farm steadings utilising relatively limited enclosed land or common fields. There is a chance therefore that features such as previously unidentified buildings or walls may exist in this upland environment. The 1858 Ordnance Survey also depicts a number of small quarry pits within the extension area (Illus 2).

In addition, four flint find spots have been located in the vicinity of the quarry recorded by the Eddleston Parish Project; these include an arrowhead, a lithic scatter, a pitchstone flake and a flint chunk. There was the possibility therefore that a relict prehistoric landscape lay below the current topsoil. A copy of the list sites recorded as part of the EIA has been included in Appendix 1.





Illus 2Extract from the 1858 Ordnance Survey

2. OBJECTIVES

The main objectives of archaeological works were:

- to record any archaeological remains threatened by the proposed development works,
- to report on the results of the work.

Initially the work sought to establish the presence, extent, condition, character, quality and date of any archaeological deposits within the area to be affected by the development and record them to a standard acceptable to the planning authority or preserve them *in situ* as agreed with the planning authority.

3. METHOD

The quarry is to be worked in a series of pre-determined phases. It is anticipated that each phase will be fully stripped of topsoil. The principal archaeological method to be adopted is monitoring of the topsoil strip, so the archaeology of the site will be recorded in four stages with a report prepared at the end of each phase of stripping.

The watching brief was intended to ensure that any features or deposits of archaeological significance were identified and recorded.

Prior to topsoil stripping, the aerial photographs showing the rig and furrow were transcribed and plotted on the OS plan. The location of visible, surviving features associated with the rig and furrow system within the site of the proposed development were annotated on the above plan.

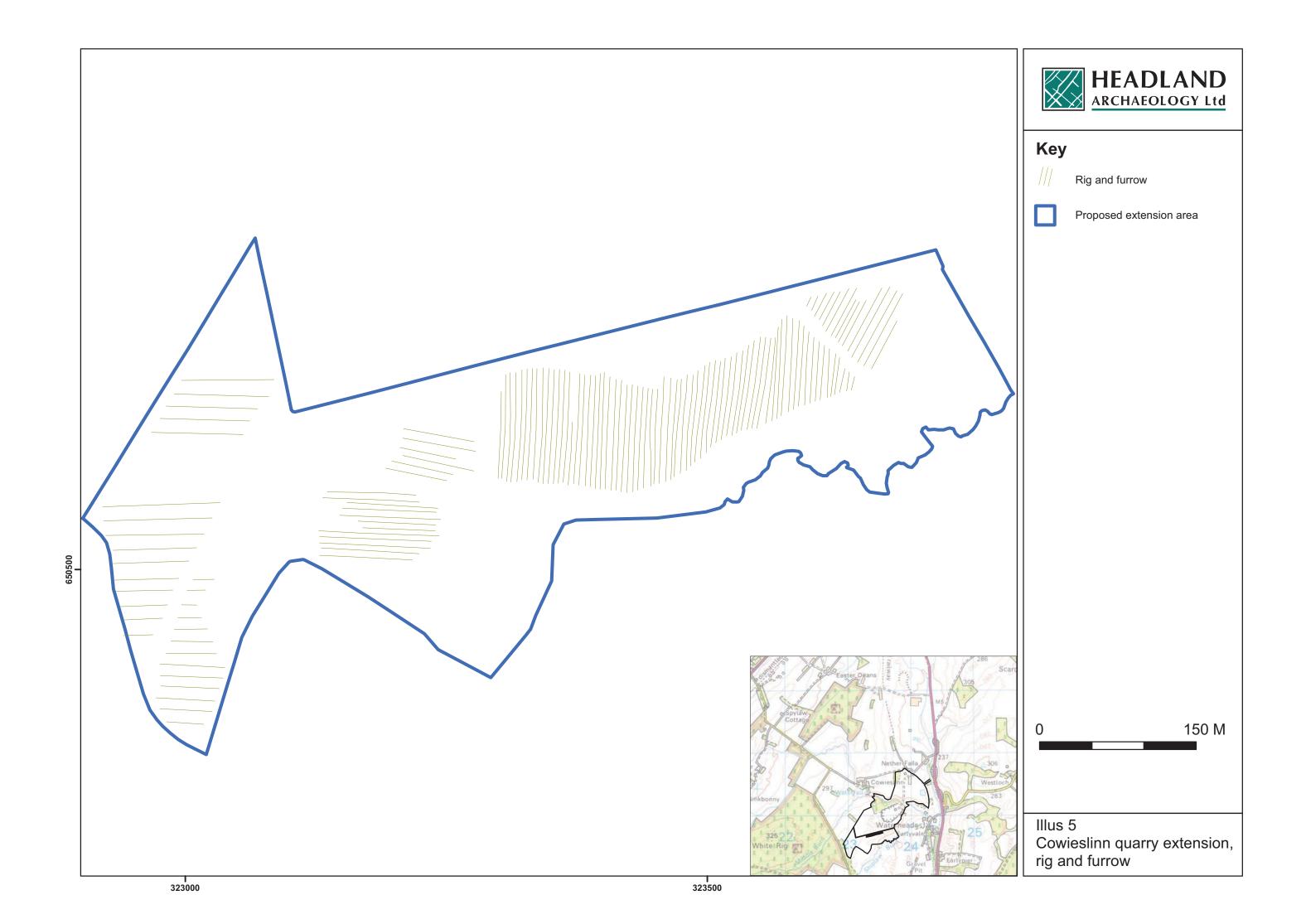
All topsoil stripping was carried out under the direct supervision of a monitoring archaeologist. A flat-edged bucket fitted to a tracked excavator was used to remove soft deposits (topsoil, subsoil and colluvium).

Machine excavation continued until either significant archaeological deposits or undisturbed geological deposits were exposed. The exposed surface of geological deposits was sufficiently clean to inspect for potential archaeological features. Any archaeological features, artefacts or deposits encountered by the monitoring archaeologist halted machine excavation in the affected area. Sufficient time was afforded for an appropriate amount of cleaning and recording of any exposed archaeological remains.

2



Plan of the quarry showing the area of Phase 1





Illus 4A view of Phase 1 prior to the topsoil strip

Following excavation, the spoil heap was rapidly screened by the monitoring archaeologist in order to recover any finds, in particular to assess the presence of flint scatters.

3.1 Recording

All recording followed Headland Archaeology Ltd standard procedures and were in accordance with the codes of practice of the Institute *for* Archaeologists. All recording was undertaken on pro forma record cards that conform to accepted archaeological norms. All stratigraphic relationships were recorded.

Colour print and digital photographs were taken to record archaeological contexts and to illustrate the general nature of the work. All photographs have been recorded by individual print number and include information on the context and direction taken. A full list of the photographs can be found in Appendix 2.

A plan of the area to be stripped in relation to the National Grid was supplied by the client. Significant archaeological features have been recorded on this plan by use of hand measurements where appropriate (Illus 3).

4. SITE DESCRIPTION

4.1 Topography, soils and geology

The quarry site is located in an undulating agricultural landscape, with a few steeper slopes, at an altitude of approximately 260m OD, roughly 150m north of the course of the Shiplaw Burn. The area covered by the Phase 1 watching brief ran along the southern edge of the existing quarry face

forming a 260m long strip 28m wide that comprised rough grassland (Illus 4) with occasional patches of soft peaty ground and a small area of outcropping bedrock.

The drift geology covering the entire site consisted of glaciofluvial deposits of sand gravel and silt. The underlying solid geology was part of the Kirkholm Formation comprising a significant amount of Wacke (BGS 2011). The depth of soil overlying the Phase 1 area was fairly standard, although two areas of deeper soil were recorded where patches of peat occurred. Over the flatter areas there was no more than 0.4m of topsoil, while in deeper folds and hollows there was up to 0.7m of soil in places. Areas where the topsoil was more than 0.5m deep are shaded on Illus 3. There was corresponding variability in the nature of the soil: in areas of deep soil it consisted of very dark brown, almost stone-free, fine-grained peaty silt with a high organic component. A more stony mineral soil was found over the majority of the site. The deeper soil occurs in precisely the areas where colluvial deposits might be expected to accumulate, i.e. at the foot of steeper slopes.

5. RESULTS

The work was carried out over 4 days in February 2011 in snowy conditions.

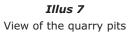
An area measuring 260m x 28m aligned E-W along the southern edge of the existing quarry was completely stripped of topsoil. As mentioned above the topsoil was mainly between 0.3 and 0.4m deep across the site although two small patches of deeper soil were recorded along with areas of shallower topsoil over the higher areas.

The monitored strip, using a 360° tracked excavator with a flat-bladed ditching bucket was continued to the depth





Illus 6View of rig and furrow prior to topsoil strip





Illus 8View of phase 1 showing conditions



Illus 9Post-excavation shot of Phase 1

of the natural geology. This mainly comprised orange sandy clay with occasional patches of gravel rich deposits and a small area of outcropping bedrock.

5.1 Rig and furrow and modern features

Cultivation furrows covered large areas of the wider quarry extension. These were generally orientated either N-S or E-W dependent on the face of the slope on which they occurred. A plan of these furrows was undertaken by transcribing aerial photographs supplied by RCAHMS (Illus 5). The average spacing between them was generally 4–5m centre-to-centre. The furrows were up to 3m wide with very gently sloping edges.

Only one small area comprising five furrows was recorded within the Phase 1 extension and these were only visible within the turf layer (Illus 6). Once the topsoil had been removed no evidence of these was visible. This suggests that the furrows were very shallow as the topsoil was no more than 0.4m thick across this area.

A small concentration of probable 18th/19th century quarry pits was also recorded within the Phase 1 extension

(Illus 7). The excavations revealed that the topsoil was very shallow at this point and that the bedrock was exposed immediately below.

No other features of archaeological significance were recorded during this phase of the works (Illus 8 and 9). A continuous and thorough inspection of the spoil heaps created during this programme of monitoring did not find any artefacts of archaeological significance.

REFERENCES

6.1 Bibliography

BGS, 2011, http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html<, accessed 01/03/2011. Headland Archaeology, 2008, EIA, (part of an unpublished report for CEMEX Ltd).

6.2 Cartography

1858, Ordnance Survey, *Peebleshire*, VI, 1:10,560 (surveyed 1856).



7. APPENDICES

7.1 Appendix 1 – EIA records

A copy of the features recorded as part of the EIA (Headland 2008).

HA no.	Description	References	X	Y
1	Group of small quarry pits.	-	323434	650706
2	Small quarry pit.	-	323332	650610
3	Small circular quarry pit.	-	323442	650621
4	Traces of rig and furrow cultivation (4 rigs) were identified during field walking by J. Dent and R. McDonald as part of a pre-planning application consultation.	SMR; 4030105	323300	650800
5	A chert leaf-shaped arrowhead found during field survey as part of the Eddleston Parish Project.	SMR; 4030122	323650	650820
6	Lithics scatter, including chert microliths discovered during field survey as part of the Eddleston Parish Project.	SMR; 4030121	324100	650870
7	An area of rig and furrow cultivation noticed during field walking by J. Dent and R. McDonald as part of a pre-planning application consultation.	SMR; 4030106	323300	650400
8	Flint 'chunk' discovered during field walking as part of the Eddleston Parish Project.	SMR; 4030120	322650	650000
9	Rig.	SMR; 4030101, NMRS; NT25SW12	323100	650200
10	A pitchstone flake discovered during field survey as part of the Eddleston Parish Project.	SMR; 4030123	323220	650050
11	This 'barrow' was a small hill with four small conical mounds on the summit, its base looked like a ship's hold. It was possibly a barrow or long cairn. The hill has now been quarried away.	SMR; 4030008, NMRS; NT25SW1	324150	650340

7.2 Appendix 2 – Photographic register

Photo no.	Colour print	Facing	Description
01	37/1	-	Film 1 ID shot
02	36/1	Е	Pre-excavation shot
03	-	-	Void
04	35/1	W	Pre-excavation shot
05	-	-	Void
06	-	NW	View of quarry
07	-	NE	View of quarry
08	34/1	SE	View of initial strip at the W side of site
09	33/1	NE	View of rig and furrow
10	32/1	W	View of a stripped area
11	31/1	SW	View of quarry pits
12	30/1	S	View of quarry pits
13	29/1	W	View of quarry pits
14	28/1	W	Working shot
15	27/1	NW	Working shot
16	26/1	NW	Working shot showing stripped area
17	25/1	Е	View showing site conditions
18	24/1	W	Working shot showing stripped area
19	23/1	SW	Working shot showing stripped area
20	22/1	W	Working shot showing stripped area
21	21/1	Е	Stripped area at the E end of site
22	20/1	NW	Stripped area at the E end of site
23	19/1	W	Stripped area

7.3 Discovery and Excavation in Scotland entry

LOCAL AUTHORITY:	Scottish Borders
PROJECT TITLE/SITE NAME:	A watching brief at Cowieslinn Quarry, Peebles
PROJECT CODE:	CLQP10
PARISH:	Peebles
NAME OF CONTRIBUTOR:	Donald Wilson
NAME OF ORGANISATION:	Headland Archaeology Ltd
TYPE(S) OF PROJECT:	Watching brief
NMRS NO(S):	-
SITE/MONUMENT TYPE(S):	none
SIGNIFICANT FINDS:	none
NGR (2 letters, 8 or 10 figures)	NGR: NT 2329 5059
START DATE (this season)	February 2011
END DATE (this season)	February 2011
PREVIOUS WORK (incl. DES ref.)	none
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Topsoil stripping in advance of an extension to Cowieslinn Quarry (Phase 1) was carried out under the conditions of an archaeological watching brief. No significant archaeological features or artefacts were recovered during this phase of monitoring. A small area of rig and furrow was noted close to the quarry face although on excavation this proved to be very shallow. An area of small quarry pits, thought to be of 19th century origin, was also partially stripped during this phase of works.
PROPOSED FUTURE WORK:	Further topsoil stripping
CAPTION(S) FOR ILLUSTRS:	-
SPONSOR OR FUNDING BODY:	Cemex Uk Ltd
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ARCHIVE LOCATION (intended/deposited)	NMRS



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