

**Melville Gates South Quarry Extension Phase 1C,
Ladybank, Fife:
Archaeological Mitigation**

Data Structure Report



by Peter Klemen

issued 22nd February 2018

on behalf of Angle Park Sand and Gravel Co. Ltd

RATHMELL 
ARCHAEOLOGY LTD

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct.

Signed Peter Klemen Date22nd February 2018....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked Thomas Reas Date22nd February 2018....

Copyright Rathmell Archaeology Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Rathmell Archaeology Limited. If you have received this report in error, please destroy all copies in your possession or control and notify Rathmell Archaeology Limited.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Rathmell Archaeology Limited, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Rathmell Archaeology Limited for any use of this report, other than the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Rathmell Archaeology Limited using due skill, care and diligence in preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Rathmell Archaeology Limited has been made.

Quality Assurance Data

Author(s)	Peter Klemen		
Date of Issue	22 nd February 2018	Version	1.0
Commissioning Body	Angle Park Sand and Gravel Co. Ltd		
Event Name	Melville Gates Quarry Extension Phase 1C		
Event Type	Evaluation		
Event Date(s)	February 2018		
Rathmell Archaeology Code	RA14013	OASIS Ref:	Rathmell1-310001
Location	United Kingdom: Scotland: Fife		
NGR	NO 31676 11381	Parish	Collessie
Designation(s)	None		

Contents

Introduction	4
Site Location and Proposed Development	4
Archaeological and Historical Background	4
Designated Sites	5
Project Works.....	5
Findings.....	5
Discussion	8
Recommendations	16
Conclusion	16
Acknowledgements	17
References	17
Documentary	17
Appendix 1: Trench Details.....	18
Appendix 2: Registers.....	23
Context Register.....	23
Photographic Register	24
Sample Register	27
Finds Register	27
Drawing Register	28
Appendix 3: Discovery & Excavation in Scotland	30
Contact Details	31

Figures

Figure 1: Development phasing, shaded zone depicts Phase areas that have been subject to a previous intrusive evaluation.....	6
Figure 2: Plan of trenches as excavated (Trenches 70-100) and the proposed area for archaeological controlled monitoring.....	7
Figure 3a: Working shot showing JCB JS145 excavator.....	9
Figure 3b: Pre-excavation of site showing topography.....	9
Figure 4a: Pre-excavation of site showing topography.....	10
Figure 4b: Showing context (002).....	10
Figure 5a: Showing context (003).....	11
Figure 5b: Showing context (004).....	11
Figure 6b: Showing context (006).....	12
Figure 7b:Mid-excavation of circular feature [007] and fill (008).....	13
Figure 8a: Feature [007] fully excavated and showing the possible stakeholes.....	14
Figure 8b: Showing red ceramic field drain (009) and a rubble field drain (010).....	14
Figure 9a: Showing rubble field drain (010).....	15
Figure 9b: Showing plough scars (011).....	15

Introduction

1. This Data Structure Report has been prepared for Angle Park Sand and Gravel Co. Ltd in respect of the extension to sand and gravel quarry at Melville Gates Quarry, Ladybank, Cupar, Fife KY15 7RF (NGR: NO 31676 11381). The archaeological works are designed to mitigate the impact on the archaeological remains within the development area. The development area is located more than 1km to the north-east of the town of Ladybank.
2. The archaeological works were designed to determine the nature, form and extent of any archaeological remains within the development area so as to inform the mitigation of any adverse impact. The archaeological works have been structured to meet the requirements of Fife Council Archaeological Unit who in advising that archaeological issues should be addressed advised an initial evaluation at a 5% sample level.
3. Rathmell Archaeology Limited has been appointed by Angle Park Sand and Gravel Co. Ltd to undertake the development of the archaeological mitigation. The project works were outlined in the Written Scheme of Investigation (Matthews 2014), which was agreed with Fife Council Archaeological Unit.

Site Location and Proposed Development

4. The current area for the phased extension of the quarry works is to be the northern most of field associated with Phase IC (Trenches 70-100, Figures 1 & 2). Prior to development as a quarry the development area was in use as arable land. The extension of the existing quarry into the development area would operate on or at similar levels to the existing work and continue to use existing plant and infrastructure. The extraction and restoration would be undertaken in a progressive manner. The progressive restoration of each phase would limit the amount of land being disturbed at any given time.

Archaeological and Historical Background

5. The following historical and archaeological background is based on the information contained within the Environmental Statement. Rather than repeat the information provided there, this section will summarize the key points and present additional information where appropriate.
6. The Environmental Statement identifies three potential sites within the development area which have been identified from aerial photographs. No other known or potential sites are identified within the development area. The three sites (from north to south) are described as:
 - ❖ a possible large pit, CAN306151 (Canmore ID: 306151);
 - ❖ up to three ring ditches, MFF8588 (Canmore ID: 31681); and
 - ❖ possible ring ditches, MFF8607 (Canmore ID: 84858).
7. The large pit (CAN306151) in the northern part of the development area is described as a disc of darker crop noted on aerial photographs, this conflicts with the Canmore description of the site as '*a scatter of irregular pits*'. A possible interpretation of this site has been a large pit or an accumulation of ploughsoil in a marked depression. The environmental assessment stresses the potential for recovery of palaeoenvironmental evidence from this location which is damp in comparison to the immediately surrounding land. There is also the potential for a greater depth of deposit to mask archaeological remains in the area.
8. It should be noted, however, that the current AP transcription (CAN306151), provided by NRHE, shows a mismatch with where the Environmental Statement placed the feature(s). The actual location of this recorded site is approximately 50m to the south. In addition the rectified plot lists the feature as geological. For the purposes of this Written Scheme of Investigation it is considered to be unlikely that this cropmark represents a significant archaeological feature.
9. The Environmental Statement describes three ring ditches (MFF8588), the easternmost of which may have an opening on the south-east, at about the center of the proposed

quarry extension. The site inspection carried out as an element of the Environmental Impact Assessment found some evidence of deep ploughing of the area around these features but no evidence of disturbance of archaeological features was observed.

10. Closer inspection of the available aerial photographic record suggests that the number and character of these features has been wrongly assessed. According to the most recent AP transcription, provided by NRHE, there are at least four penannular features all of which are from 5m to 8m in diameter with three exhibiting distinct openings to the south-east. The size and form make these likely to be ring-grove houses, suggesting later prehistoric unenclosed settlement.
11. A possible ring ditch (MFF8607) is described in the southern central portion of the proposed development area. According to the Environmental Statement there are three cropmark features, observed on aerial photographs, in this approximate area which may be the indicated feature. Again with reference to the most recent rectification of the aerial photographs we can recognize that there are in fact two likely features, described as possible ring ditch houses, and locate them with greater accuracy.
12. According to the Environmental Statement the time of the site inspection where was no visible indication of any of the above features that might have been used to confirm their existence or location.
13. The mitigation strategy following in this Archaeological Written Scheme of Investigation will be based on the transcriptions of the possible unenclosed houses. The area immediately surrounding these features will be considered to be areas of high archaeological potential. The area surrounding the geological feature, previously described as a pit, will be considered along with the remainder of the extraction area as of moderate archaeological potential.

Designated Sites

14. No designated sites are known to exist within the development area and this is confirmed by the findings of the Environmental Assessment Project Works

Project Works

15. An archaeological evaluation was undertaken over four days from the 12th-15th February 2018, and was carried out in keeping with the methods outlined in the Written Scheme of Investigation (Matthews 2014). This evaluation consisted of the excavation of a series of intrusive trenches to expose a 5% sample of the available development area and associated with the North Field Phase 1C of the development which was approximately 6.2795 ha and located in the northwest corner of the larger proposed development area (Figure 1).
16. In total 3160.2m² of trenching was excavated, slightly exceeding the required 5% sample. The position of the trenches is shown on the site plan (Figure 2). A JCB JS145 excavator with a smooth 2m ditching bucket was used to remove the topsoil down to the level of the uppermost archaeological horizon or the subsoil (Figure 3a).
17. The development site was a rolling field that descended into the centre of the field to a pond area. The field was enclosed by fencing on all four sides, with a line of trees and a path running along the north side of the site (Figures 3b & 4a).
18. All works were conducted in accordance with Fife Council Archaeological Unit's Terms of Reference, the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

Findings

19. Thirty-one evaluation trenches were excavated across the development area, using a 360° JCB JS145 mechanical excavator with a toothless 2m ditching bucket. The details of the trenches can be found in Appendix 1 within this report.

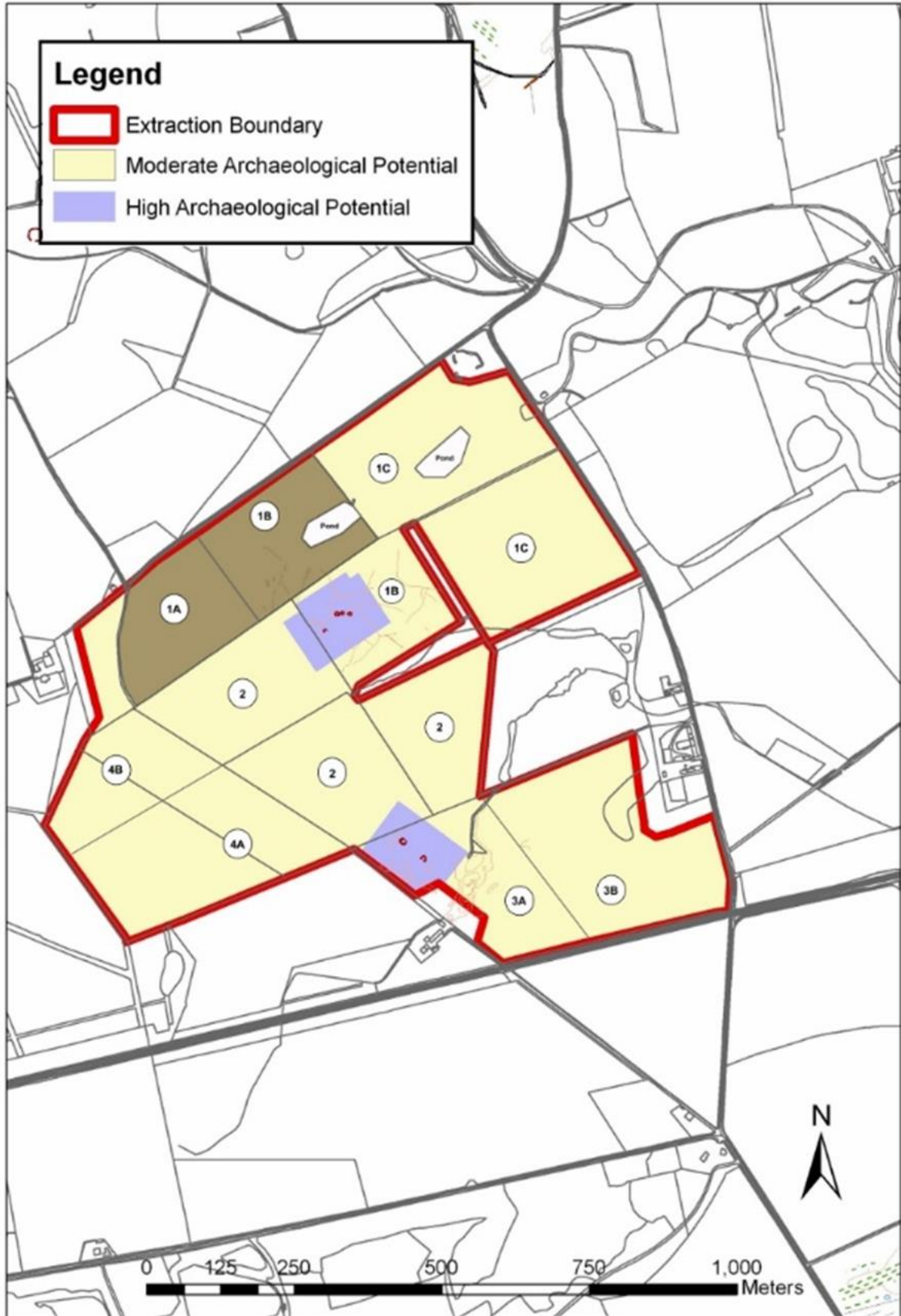


Figure 1: Development phasing, shaded zone depicts Phase areas that have been subject to a previous intrusive evaluation.



Figure 2: Plan of trenches as excavated (Trenches 70-100) and the proposed area for archaeological controlled monitoring

20. Topsoil/ploughsoil (001) covered all the trenches and consisted of a moderately compacted mid grey silty sandy loam with frequent small rounded stones 10-50mm in size and ranged in depth from a maximum of 750mm to a minimum of 270mm.
21. Across the majority of the trenches the underlying natural subsoil was predominantly sand with some variation. Context (002) was formed by moderately compacted mid brown sand with frequent rounded stones with a maximum size of 70mm (Figure 4b). Context (003) formed a moderately compacted light brown red sand with occasional gravel patches (Figure 5a).
22. Context (004) was characterised by a moderately compacted light yellow sand and clay with no inclusions and approximately a 50/50 combination (Figure 5b). Context (005) comprised of a moderately compacted light yellow grey sand with occasional rounded stones measuring (Figure 6a). Context (006) was formed by a moderately light grey clay and sand with a higher clay composition and approximately an 80/20 combination (Figure 6b).
23. In Trench 90 a roughly circular feature [007] measuring 1.50m north-south by 1.30m east-west was observed (Figure 7a). On excavation it was recorded as having gradual sloping sides with a flat base and rounded break of slope top and bottom and a maximum depth of 220mm (Figure 7b & 8a). The fill (008) was formed by a moderately compacted red brown sand and silt with frequent rounded and sub-rounded stones; 30-70mm in size. Occasional charcoal pieces and a sherd of prehistoric ceramic were also recorded.
24. In one trench (Trench 84) a red ceramic field drain 150mm wide was recorded [009] (Figure 8b) while in a further four trenches (Trenches: 79, 80, 81 & 84) linear rubble drains were recorded 700mm-900mm in width and filled with sub-angular and sub-rounded stones ranging in size from 100mm to 500mm in size [010] (Figure 9a).
25. Linear features were recorded in a further eight trenches (Trenches: 79, 80, 83, 89, 91, 96, 97, 98) [011]. These were 200mm wide and 30mm in depth with steep sides and a flat base, predominantly aligned east-west and filled by (001) (Figure 9b).

Discussion

26. All of the trenches revealed sand-based natural subsoil across the proposed development site (002), (003), (004), (005) and (006). Within one trench (Trench 90) a circular feature [007] was recorded with a single sherd of prehistoric pottery recovered from the fill (008). No other evidence of significant archaeological remains or artefacts were found during the course of the evaluation works within the development area. Although features associated with drainage [009] and [010] and agricultural activities [011] were found to be cut into the subsoil.
27. The circular feature [007] recorded in Trench 90 potentially represents prehistoric anthropic activity with the single sherd of pottery diagnostically dated to the Neolithic period and characterised by a form of ceramic known as Grooved Ware (3200 cal BC to 2500 cal BC). Within the base of the pit feature [007] on the east and west sides there were two small circular features. Both were 100mm in width with the circular feature on the west side measured to a depth of 400mm and the eastern one 200mm. It is possible that they represent stakeholes and linked with the charcoal fragments recorded within the fill (008) that the pit represents some form of cooking pit.
28. Within Fife the Neolithic ceremonial sites of Balfarg Henge and Balfarg Riding School near Glenrothes are associated with substantial depositions of Grooved Ware pottery. Recent discoveries of Grooved ware in Fife have been recovered from Kincapple, to the west of St Andrews in 2016 during development work where 30 sherds were excavated.
29. The linear feature of [009] represents a red ceramic tile field drain with [010] representing rubble field drains. Although the development area has a subsoil formed of sand and well drained. The areas in which the field drains were located take water away from the pond to prevent it from overflowing. The linear features [011] represent plough scars and the recent agricultural activity across the development area of Phase 1C.



Figure 3a: Working shot showing JCB JS145 excavator.



Figure 3b: Pre-excavation of site showing topography.



Figure 4a: Pre-excavation of site showing topography.



Figure 4b: Showing context (002)



Figure 5a: Showing context (003)



Figure 5b: Showing context (004)



Figure 6a: Showing context (005)



Figure 6b: Showing context (006)



Figure 7a: Circular feature [007] and fill (008)



Figure 7b: Mid-excavation of circular feature [007] and fill (008)



Figure 8a: Feature [007] fully excavated and showing the possible stakeholes



Figure 8b: Showing red ceramic field drain (009) and a rubble field drain (010)



Figure 9a: Showing rubble field drain (010)



Figure 9b: Showing plough scars (011)

30. Although there has been no modern intensive activity within the proposed development area, there is evidence for the area having been the focus of agricultural activity and disturbed by the insertion of field drains. It is possible that such activity has significantly impacted the survival of any features associated with early anthropic activity. However, the presence of the pit feature [007] demonstrates that there remains the potential for early anthropic activity to survive.

Recommendations

31. All of the trenches revealed sand-based natural subsoil across the proposed development site. Within one trench (Trench 90) a circular feature [007] was recorded with a single sherd of prehistoric pottery recovered from the fill (008). No other evidence of significant archaeological remains or artefacts were found during the course of the evaluation works within the development area. Although a features associated with drainage [009] and [010] and agricultural activities [011] were found to be cut into the subsoil.
32. Although there was a lack of significant archaeological remains recovered across the majority of Phase 1C North Field, the pit [007] and sherd of Grooved Ware ceramic demonstrate that there is the potential for the survival of features linked to early anthropic activity and associated artefacts.
33. Rathmell Archaeology Ltd recommends that further archaeological work be carried out within the investigated section of the development area, relating to this planning application (13/00976/EIA). This would be in the form of archaeological controlled monitoring undertaken during ground-breaking works and located over Trench 90 and the immediate surrounding area covering an area in plan with sides 50m in length (2500m²) and centred on the location on the location of pit feature [007].
34. Within this area an archaeologist would monitor the topsoil stripping having the control of the machine to instruct as to the depth to be stripped. The stripped surface would then be inspected for archaeological features, where present these would be subject to hand excavation, sampling and recording to the agreed standards within the WSI.
35. Post-excavation analyses of the archaeological features investigated and recorded within the archaeological controlled monitoring exercise will be presented within the consequent technical report. These recommendations will encompass the material recovered from the evaluation. Given that Grooved Ware pottery was recovered from pit [007] and fragments of charcoal throughout the fill (008) we will recommend post-excavation analysis of these materials (artefacts and soil samples) partly with a view to securing a radiocarbon determination of date linked to this important pottery.
36. The appropriateness and acceptability of our recommendations rest with Fife Council and their advisors, Fife Council Archaeological Unit.

Conclusion

37. A programme of archaeological works was required by Angle Park Sand and Gravel Co. Ltd in support of the change of use of land from agricultural to industrial/commercial and the extension of the sand and gravel quarry to the south of the existing quarry at Melville Gates Quarry, Ladybank, Cupar, Fife KY15 7RF (NGR: NO 31676 11381) (Planning ref: 13/00976/EIA).
38. The archaeological investigative works consisted of an intrusive evaluation of the north field associated with Phase 1C and Trenches 70-100 (Figure 2) and was designed to assess a 5% sample of the proposed development area. In total 3,160.2m² of trenching was excavated, slightly exceeding the required 5% sample.
39. All of the trenches revealed sand-based natural subsoil across the proposed development site (002), (003), (004), (005) and (006). Within one trench (Trench 90) a circular feature [007] was recorded with a single sherd of prehistoric pottery recovered from the fill (008). No other evidence of significant archaeological remains or artefacts were found during the course of the evaluation works within the development area. A number

features associated with drainage [009], [010] and agricultural activities [011] were found to be cut into the subsoil.

40. Although there was a lack of significant archaeological remains recovered across the majority of Phase 1C North Field, the pit feature [007] and sherd of Grooved Ware ceramic demonstrate that there is the potential for the survival of features linked to early anthropic activity and associated artefacts.
41. Rathmell Archaeology Ltd recommends that further archaeological work be carried out within the investigated section of the development area, relating to this planning application (13/00976/EIA). This would be in the form of archaeological controlled monitoring of a defined area centred on the pit [007] in Trench 90 with the aim to locate

Acknowledgements

42. The author would like to thank Fife Council Archaeological Unit for their guidance on the structure of these archaeological works. We are grateful to Peter Cuthbert, who acting on behalf of Angle Park Sand and Gravel Co. Ltd provided us the opportunity to carry out these works and for ensuring that the on-site works ran smoothly.

References

Documentary

- | | | |
|-------------|------|---|
| Matthews. A | 2015 | <i>Melville Gates Quarry, Ladybank Fife: Archaeological Mitigation: Written Scheme of Investigation.</i> Unpublished commercial report by Rathmell Archaeology Ltd. |
|-------------|------|---|

Appendix 1: Trench Details

Within this appendix a standardised set of data pertaining to the evaluation trenches is presented.

All measurement distances quoted along the trench measure based on the quoted orientation of the trench.

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
70	NW-SE	2m by 55m 110m ²	400mm to 400mm	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002).	None	None	None
71	NW-SE	2m by 50m 100 m ²	300mm to 270mm	The subsoil for the whole length of the trench was characterised by moderately compacted moderately compacted light brown sand with occasional gravel patches (003).	None	None.	None.
72	NW-SE	2m by 51.8m 103.6m ²	300mm to 270mm	The first +25m of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002), with the remaining length formed by a moderately compacted moderately compacted light brown sand with occasional gravel patches (003).	None	None	None
73	NNW-SSE	2m by 50.6m 101.2m ²	400mm to 300mm	The first +4m of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002), where it changed to (003) for 39m and changed to a moderately compacted light yellow white sand and clay, approximately 50/50 mix (004) for the last 11m.6m.	None	None	None
74	NNW-SSE	2m by 53m 106m ²	300mm to	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent	None	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
			300mm	rounded stones a maximum 70mm in size (002).			
75	N-S	2m by 50m 100m ²	300m to 300mm	The first +38m of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002), with the remaining length formed by a moderately compacted moderately compacted light brown sand with occasional gravel patches (003).	None	None	None
76	NW-SE	2m by 50m 100m ²	300mm to 300mm	The subsoil for the whole length of the trench was characterised by context (002).	None	None	None
77	N-S	2m by 51m 102m ²	400mm to 370mm	The subsoil for the whole length of the trench was characterised by context (002).	None	None	None
78	SW-NE	2m by 56m 112 m ²	300mm to 300mm	The first +12m of the trench was characterised by (0052 where it changed to (003) for remaining length of the trench. From 0 to +4m plough scars were recorded and at +32m +36m and +43m rubble field drains were recorded.	Plough scars and rubble field drain	None	None
79	SW-NE	2m by 51m 102m ²	300mm to 300mm	The first +19m of the trench was characterised by (005) where it changed to (006) 15m and the remaining length of the trench formed of (003). At +21m, +31m and +35m rubble field drains were recorded.	Rubble field drain	None	None
80	SW-NE	2m by 50 100m ²	300mm to 370mm	The first +8m of the trench was characterised by (002) where it changed to (005) for 25m where it changed to (006) for the remaining length of the trench. Plough scars were recorded at +3m for	Rubble field drain	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
				11m. At +33m and +40m rubble field drains were recorded.			
81	SW-NE	2m by 50m 100m ²	300mm to 400mm	The subsoil for the whole length of the trench was characterised by (005).	None	None	None
82	NE-SW	2m by 52m 104m ²	300mm to 300mm	The first +46 was characterised by (002) with the remaining length formed of (005)	None	None	None
83	NE-SW	2m by 50m 100 m ²	380mm to 300mm	The subsoil for the whole length of the trench was characterised by context (002). Plough scars were recorded in the first +4m, at +18m for a length of 8m and at +36 for a length of 10m.	Plough scars	None	None
84	NW-SE	2m by 50.4m 100.8m ²	400mm to 350mm	The first +17m was formed by (005) with the next 10m formed by moderately compacted light grey clay and sand with an approximately 80/20 mix. The next 13m was reverted back to by (005) with the remaining length changing at +41m to (002). A red ceramic field drain (009) was recorded at +11m and two rubble field drains (010) at +14 and +27m.	Red ceramic field drain and rubble field drains	None	None
85	NW-SE	2m by 54m 108m ²	300mm to 700mm	The first +5m was formed by (005) with the next 8m formed by (002). From +13m the subsoil was formed by (003) and after 14m reverting back to (002) for the remaining length of the trench.	None	None	None
86	NW-SE	2m by 51 102m ²	300mm to 400mm	The subsoil for the whole length of the trench was characterised by context (002), with the remaining length formed by a moderately compacted light yellow grey sand with occasional rounded stones	None	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
				(005).			
87	SE-NW	2m by 51m 102m ²	300mm to 300mm	The first +27m was formed by (003) with the next 16m formed by (005) with the remaining length of the trench reverting back to (003). At +33m an obsolete field drain was recorded.	Obsolete field drain	None	None
88	E-W	2m by 51m 102m ²	700mm to 400mm	The first +2m was formed by (002) with the next 8m formed by (002) with the remaining length of the trench formed by a moderately compacted light yellow white sand and clay, approximately 50/50 mix (003). At +24m an obsolete field drain was recorded.	Obsolete field drain	None	None
89	SSW-NNE	2m by 50.5m 101m ²	340mm to 340mm	The subsoil for the first +29 was characterised by (002) with the remaining length formed of (005). Plough scars were recorded at +7m for 5m.	Plough scars	None	None
90	NNE-SSW	2m by 50m 100m ²	400mm to 350mm	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002). At +14 a roughly circular feature was recorded [007]. Measuring 1.50m N-S by 1.30m E-W, gradual sloping sides with a flat base and rounded break of slope top and bottom, maximum depth 220mm. The fill (008) was a moderately compacted red brown sand and silt with frequent rounded and sub-rounded stones; 30-70mm in size. Occasional charcoal pieces.	None	Pit	Sherd of Prehistoric ceramic
91	NW-SE	2m by 50.8m	300mm to	The subsoil for the whole length of the trench was characterised by (002). At	Plough scars	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
		101.6 m ²	300mm	+7m plough scars were recorded for 16m.			
92	NW-SE	2m by 50m 100m ²	300mm to 300mm	The first +3m was formed by (003) where it changed to (005) for 19m and the remaining length was formed by (002). At +4m plough scars were recorded for 2.5m.	Plough scars	None	None
93	NNE-SSW	2m by 50m 100m ²	300mm to 350mm	The first +13m was formed by (003) where it changed to (005) for 14m and the remaining length was formed by (002).	None	None	None
94	E-W	2m by 52m 101m ²	400mm to 400mm	The first +13m was formed by moderately compacted light grey clay and sand with an approximately 80/20 mix (006). Where it change to context (003) for 12m and reverting back to (006) for the 9m with the remaining length formed by (003)	Rubble field drain	None	None
95	E-W	2m by 50m 100m ²	400mm to 600mm	The subsoil for the whole length of the trench was characterised by (005).	None	None	None
96	NW-SE	2m by 50m 100m ²		The subsoil for the whole length of the trench was characterised by (005). A plough scar was recorded in at +48m.	Plough scar	None	None
97	NW-SE	2m by 50.5m 101m ²	330mm to 350mm	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002). Plough scars were recorded at +27m for a length of 3m and at +37m +43m and +50.	Plough scars	None	None
98	NW-SE	2m by 50.5m 101m ²	300mm to 300mm	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size	Plough scars	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
				(002). Plough scars were recorded at +35m for a length of 3m.			
99	WNW-ESE	2m by 48.5m 97m ²	750mm to 300mm	The subsoil for the whole length of the trench was characterised by moderately compacted mid brown sand with frequent rounded stones a maximum 70mm in size (002).	None	None	None
100	WNW-ESE	2m by 52m 102m ²	300mm to 300mm	The subsoil for the whole length of the trench was characterised by context (002).	None	None	None

Appendix 2: Registers

Within this appendix are all registers pertaining to works on-site during the evaluation.

Context Register

Context No.	Area/ Trench	Type	Description	Interpretation
001	All trenches	Deposit	Moderately compacted mid grey silty sandy loam with very frequent very small stone 100mm in size small rounded stones 10-50mm in size.	Topsoil/ploughsoil
002	70, 72, 73, 74, 75, 76, 77, 79, 80, 82, 83, 84, 85, 86, 88, 89, 90, 91, 92, 93, 97, 98, 99, 100	Deposit	Moderately compacted Mid brown sand with frequent rounded stones a maximum 70mm in size.	Natural subsoil
003	71, 72, 73, 75, 79, 85, 87, 88, 92,	Deposit	Moderately compacted light brown sand with occasional gravel patches.	Natural subsoil

Context No.	Area/ Trench	Type	Description	Interpretation
	93, 94			
004	73	Deposit	Moderately compacted light yellow white sand and clay, approximately 50/50 mix.	Natural subsoil
005	78, 80, 81, 82, 84, 85, 86, 87, 89, 92, 93, 96	Deposit	Moderately compacted light yellow grey sand with occasional rounded stones.	Natural subsoil
006	78, 80, 84, 94	Deposit	Moderately compacted light grey clay and sand with an approximately 80/20 mix.	Natural subsoil
007	90	Feature	Roughly circular in plan measuring 1.50m N-S by 1.30m E-W gradual sloping sides with a flat base and rounded break of slope top and bottom, maximum depth 220mm .	Pit (?)
008	90	Deposit	Moderately compacted red brown sand and silt with frequent rounded and sub-rounded stones; 30-70mm in size. Occasional charcoal pieces.	Fill of [007]
009	84	Feature	Red ceramic cylinder, 150mm wide.	Red ceramic field drain
010	79,80, 81, 84	Feature	Approximately 900mm wide linear with sandstone rubble (sub-angular stones 100-500mm in size) inclusions.	Rubble field drain
011	79, 80, 83, 89, 91, 96, 97, 98	Feature	Narrow linears, 200mm wide, 30mm deep with steep side and a flat base.	Plough marks

Photographic Register

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
001	-	-	-	-	5666	Pre excavation shot of area	NW	12/2/18

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
002	-	-	-	-	5667	Pre excavation shot of area	W	12/2/18
003	-	-	-	-	5668	Pre excavation shot of area	NW	12/2/18
004	-	-	-	-	5669	Pre excavation shot of area	NNW	12/2/18
005	-	-	-	-	5670	Post excavation of trench 70	NW	13/2/18
006	-	-	-	-	5671	Post excavation of trench 71	NW	13/2/18
007	-	-	-	-	5672	Post excavation of trench 72	NW	13/2/18
008	-	-	-	-	5673	Post excavation of trench 73	NW	13/2/18
009	-	-	-	-	5674	Post excavation of trench 74	NNW	13/2/18
010	-	-	-	-	5675	Post excavation of trench 75	NNW	13/2/18
011	-	-	-	-	5676	Post excavation of trench 76	N	13/2/18
012	-	-	-	-	5677	Post excavation of trench 77	NNW	13/2/18
013	-	-	-	-	5678	Post excavation of trench 86	NW	13/2/18
014	-	-	-	-	5679	Post excavation of trench 87	WNW	13/2/18
015	-	-	-	-	5680	Post excavation of trench 88	WMW	13/2/18
016	-	-	-	-	5681	Post excavation of trench 83	NE	13/2/18
017	-	-	-	-	5682	Plough scares/ marks trench 85	SW	13/2/18
018	-	-	-	-	5683	Plough scares/ marks trench 85	SW	13/2/18
019	-	-	-	-	5684	Plough scares/ marks trench 85	SW	13/2/18
020	-	-	-	-	5685	Post excavation trench 82	NE	13/2/18
021	-	-	-	-	5686	Working shot	NW	13/2/18
022	-	-	-	-	5687	Field drains in trench 84	SW	13/2/18
023	-	-	-	-	5688	Post excavation of trench 84	WNW	13/2/18

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
024	-	-	-	-	5689	Post excavation of trench 85	NW	13/2/18
025	-	-	-	-	5690	Post excavation of trench 100	WNW	13/2/18
026	-	-	-	-	5691	Post excavation of trench 99	NW	13/2/18
027	-	-	-	-	5692	Post excavation of trench 98	S	13/2/18
028	-	-	-	-	5693	Post excavation of trench 97	S	13/2/18
029	-	-	-	-	5694	Post excavation of trench 96	NNE	13/2/18
030	-	-	-	-	5695	Post excavation of trench 95	W	14/2/18
031	-	-	-	-	5696	Post excavation of trench 94	W	14/2/18
032	-	-	-	-	5697	Rubble field drain trench 94	W	14/2/18
033	-	-	-	-	5698	Working shot.	E	14/2/18
034	-	-	-	-	5699	Post excavation of trench 93	NNE	14/2/18
035	-	-	-	-	5700	Post excavation of trench 92	S	14/2/18
036	-	-	-	-	5701	Post excavation of trench 91	S	14/2/18
037	-	-	-	-	5702	Shot of open trenches	N	14/2/18
038	-	-	-	-	5703	Shot of open trenches	N	14/2/18
039	-	-	-	-	5704	Post excavation of trench 90	S	15/2/18
040	-	-	-	-	5705	Post excavation of trench 89	S	15/2/18
041	-	-	-	-	5706	Post excavation of trench 78	SE	15/2/18
042	-	-	-	-	5707	Post excavation of trench 79	SE	15/2/18
043	-	-	-	-	5708	Post excavation of trench 80	SE	15/2/18
044	-	-	-	-	5709	Post excavation of trench 81	SE	15/2/18
045	-	-	-	-	5710	Pre excavation of feature [007] & fill (003)	E	15/2/18

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
046	-	-	-	-	5711	Pre excavation of feature [007] & fill (003)	W	15/2/18
047	-	-	-	-	5712	Mid excavation shot of [007] showing west facing section	W	15/2/18
048	-	-	-	-	5713	Mid excavation shot of [007] in plan	S	15/2/18
049	-	-	-	-	5714	Possible rooting in west side of [007]	E	15/2/18
050	-	-	-	-	5715	Post excavation shot of [007]	W	15/2/18
051	-	-	-	-	5716	Post excavation shot of [007]	E	15/2/18
052	-	-	-	-	5717	Circular internal feature on the west side of [007]	NW	15/2/18

Sample Register

Sample No.	Trench	Context	Sample Type	Description	Excavator	Date
1	90	008	Bulk x 4 bags	Fill of pit [007]	PK	14/01/2018

Finds Register

Finds No.	Area/Trench	Context No	Material Type	Description	Interpretation
001	Trench 90	008	Ceramic	One sherd of Grooved Ware came out of Pit [007] and Fill (008).	Prehistoric

Drawing Register

Drawing No.	Sheet No.	Area/Trench	Drawing Type	Scale	Description	Drawer	Date
1	1	70	Plan	1:100	Post-excavation of Trench	PK	13/02/18
2	1	71	Plan	1:100	Post-excavation of Trench	PK	13/02/18
3	1	72	Plan	1:100	Post-excavation of Trench	PK	13/02/18
4	1	73	Plan	1:100	Post-excavation of Trench	PK	13/02/18
5	1	74	Plan	1:100	Post-excavation of Trench	PK	13/02/18
6	1	75	Plan	1:100	Post-excavation of Trench	PK	13/02/18
7	1	76	Plan	1:100	Post-excavation of Trench	PK	13/02/18
8	1	77	Plan	1:100	Post-excavation of Trench	PK	13/02/18
9	1	86	Plan	1:100	Post-excavation of Trench	PK	13/02/18
10	2	82	Plan	1:100	Post-excavation of Trench	PK	13/02/18
11	2	83	Plan	1:100	Post-excavation of Trench	PK	13/02/18
12	2	84	Plan	1:100	Post-excavation of Trench	PK	13/02/18
13	2	85	Plan	1:100	Post-excavation of Trench	PK	13/02/18
14	2	88	Plan	1:100	Post-excavation of Trench	PK	14/03/18
15	2	87	Plan	1:100	Post-excavation of Trench	PK	14/03/18
16	2	100	Plan	1:100	Post-excavation of Trench	PK	14/03/18
17	2	99	Plan	1:100	Post-excavation of Trench	PK	14/03/18
18	3	98	Plan	1:100	Post-excavation of Trench	PK	14/03/18
19	3	97	Plan	1:100	Post-excavation of Trench	PK	14/03/18
20	3	96	Plan	1:100	Post-excavation of Trench	PK	14/03/18
21	3	94	Plan	1:100	Post-excavation of Trench	PK	14/03/18
22	3	95	Plan	1:100	Post-excavation of Trench	PK	14/03/18

Drawing No.	Sheet No.	Area/Trench	Drawing Type	Scale	Description	Drawer	Date
23	3	93	Plan	1:100	Post-excavation of Trench	PK	14/03/18
24	3	92	Plan	1:100	Post-excavation of Trench	PK	14/03/18
25	3	91	Plan	1:100	Post-excavation of Trench	PK	14/03/18
26	4	90	Plan	1:100	Post-excavation of Trench	PK	14/02/18
27	4	89	Plan	1:100	Post-excavation of Trench	PK	15/02/18
28	4	78	Plan	1:100	Post-excavation of Trench	PK	15/02/18
29	4	79	Plan	1:100	Post-excavation of Trench	PK	15/02/18
30	4	80	Plan	1:100	Post-excavation of Trench	PK	15/02/18
31	4	81	Plan	1:100	Post-excavation of Trench	PK	15/02/18
32	4	90	Section	1:10	West facing section of feature [007]	PK	15/02/18
33	4	90	Plan	1:20	Post excavation of feature [007]	PK	15/02/18

Appendix 3: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	Fife
PROJECT TITLE/SITE NAME:	Melville Gate Quarry Phase 1C, Ladybank, Fife
PROJECT CODE:	RA14013
PARISH:	Collessie
NAME OF CONTRIBUTOR:	Peter Klemen
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Evaluation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NO 31676 11381
START DATE (this season)	12 th February 2018
END DATE (this season)	15 th February 2018
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	<p>A programme of archaeological works was required by Angle Park Sand and Gravel Co. Ltd in support of the change of use of land from agricultural to industrial/commercial and the extension of the sand and gravel quarry to the south of the existing quarry at Melville Gates Quarry, Ladybank, Cupar, Fife KY15 7RF (NGR: NO 31676 11381) (Planning ref: 13/00976/EIA).</p> <p>The archaeological investigative works consisted of an intrusive evaluation and was designed to assess a 5% sample of the proposed development area. In total 3,160.2m² of trenching was excavated, slightly exceeding the required 5% sample.</p> <p>All of the trenches revealed sand-based natural subsoil across the proposed development site. Within one trench a pit was recorded with a single sherd of Grooved Ware pottery was recovered from the fill. A number features associated with drainage and agricultural activities were found to be cut into the subsoil across the site.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Angle Park Sand & Gravel Co. Ltd
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
EMAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Fife Council Archaeological Unit and archive to NRHE.

Contact Details

43. Rathmell Archaeology can be contacted at our Registered Office or through the web:

Ayrshire Office:

Rathmell Archaeology Ltd
Unit 8 Ashgrove Workshops
Kilwinning
Ayrshire
KA13 6PU

www.rathmell-arch.co.uk

t.: 01294 542848

f.: 01294 542849

e.: contact@rathmell-arch.co.uk

44. Dundee Office:

Rathmell Archaeology Ltd
North Tay Office Centre
48 Loons Road
Dundee
DD3 6AP

www.rathmell-arch.co.uk

t.: 01382 645065

m.: 07827 913796

e.: peter.klemen@rathmell-arch.co.uk

45. The Fife Council Archaeology Service can be contacted at their office or through the web:

Fife Council Archaeology Service
Kingdon House
Kingdom Avenue
Glenrothes
Fife
KY7 5LY

www.fifedirect.org.uk

t.: 03451 555 555 Ext: 47 37 48

e.: douglas.speirs@fife.org.uk

End of Document