

Kiwa CMT

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Report on the Petrographic Examination of 1No. Stone Sample



Client: Austin Trueman Associates

Site: ACS Student Staircase,
Hillingdon Campus

Attention: Austin Trueman

August 2022

**Trust
Quality
Progress**

Client:

Austin Trueman Associates

Date: 7th September 2022**Originator:** Austin Trueman Associates**Our Ref:** 86130/66091**Site :** ACS Student Staircase, Hillingdon Campus**1. Samples:**

A stone sample was recovered by the client at the site above. The sample was delivered to the Kiwa CMT laboratory on 12th August 2022 and allocated KCMT laboratory prefix 66091.

2. Requirements:

Carry out petrographic examination of the stone sample to check the general composition and type of stone.

3. Test method

Petrographic examination of Natural Stone: **BS EN 12407**.

4. Date of testing:

Examination completed during 01-05 September 2022.

5. Results:

Results of the petrographic examination are summarised below with detailed data presented in the report Appendix.

Petrographic Examination

Composition and Constituents
The stone is light buff in colour and medium-grained. Based on the mineralogy the stone is classified as oolitic limestone. There are traces of shell and calcite present in the matrix of the stone. No evidence of any weathering or alteration was observed.

Opinions and interpretations expressed herein are based on the findings of examinations carried out on the concrete samples identified within this report and relate only to these samples.

Kiwa CMT Testing

Approved by

A handwritten signature in black ink, appearing to read "D Mullee".

D Mullee
(Chemistry Manager)

Appendix

Detailed Petrographic Report

Test Report Number.: EP220815 Issue 1 Date 07/09/2022 Page 1 of 2

Tested For: - Kiwa CMT, Unit 5, Prime Parkway, Prime Enterprise Park, Derby, DE1 3QB.

REPORT FOR THE PETROGRAPHIC EXAMINATION OF A STONE SAMPLE

RELEVANT INFORMATION

Work requested by: Darren Mullee

KCMT Ref: 66091

Site: ACS Student Staircase, Mansion House, Hillington Campus

Sampled by Others

Date received: 15/08/2022

Sample received: Three small fragments of stone in a dry condition, the largest 66x63x11mm

Date of examination: 01-05/09/2022

Prepared and examined by Phil Raybould

1 INTRODUCTION

The stone provided was subjected to petrographic examination to determine the stone type. The examination followed BS EN 12407 Petrographic Examination of Natural Stone.

2 PROCEDURE

A thin section was prepared from a slice taken from the large piece and examined with a Leitz petrological photomicroscope. In making the thin section, the offcut was oven-dried at a low temperature and impregnated with a low-temperature curing fluorescent resin. One side of the impregnated slice was ground, polished, and mounted onto a glass slide. The surplus sample was then removed, ground and polished to give a final thickness of approximately 20-30 micrometres.

Report Approved by:



Phil Raybould MSc, Consultant Petrographer

Results in this report relate only to the items received / tested

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3 SAMPLE DESCRIPTION

The stone is light buff in colour and medium-grained (see Figure1). The fabric is grain-supported ooliths, with occasional shell fragments. The stone reacted vigorously to dilute hydrochloric acid, and water dropped onto the surface was readily absorbed, indicating it to be porous. No evidence of weathering or alteration was seen in the hand specimen.

4 MICROSCOPIC DESCRIPTION

The stone is dominated by grain-supported micritic ooliths typically about 0.3mm in diameter that may have a concentric structure and are occasionally seeded with quartz grains with moderately abundant macropores (see Figure 2). Traces of shell and calcite matrix occur in the stone.

5 COMPOSITION

Component	Vol. %
Ooliths	85
Calcite matrix	1
Macropores	14

6 REMARKS

Based on the mineralogy identified in the hand specimen and the thin section, the stone is classified as oolitic limestone (oolitic grainstone).

Figure 1: Sample as received. The scale bar represents 10mm.

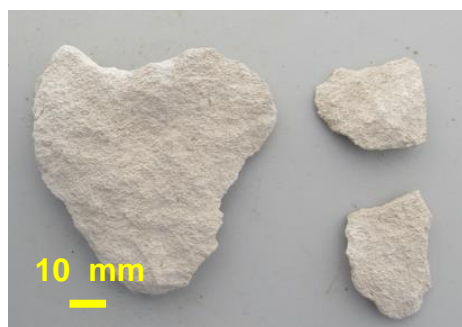
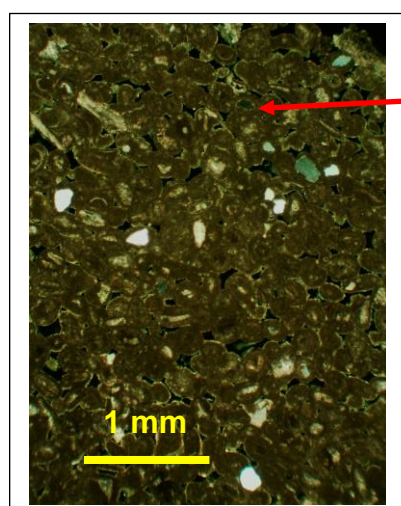


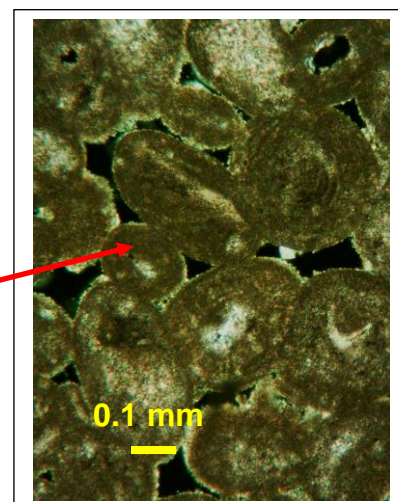
Figure 2: The thin section in transmitted light between crossed polars of the oolitic limestone.

The scale bar represents 1mm or 0.1mm.



A general view in thin section showing the brown grain supported micritic ooliths and traces of elongate shell fragments. The grey and white particles are quartz grains.

A detail of the micritic ooliths with dark macropores in the spaces between the grain supported ooliths.



End of Report