



PILE INTEGRITY TEST REPORT

Report No: **RP8675** Visit **01**

Date of Testing: **09 September 2022**

Testing Performed by: **Danny Honey**

Machine Serial No: **SIT02071**

Client:

KHB Piling Ltd
134 Brindley Close
Wembley
HA0 1BT

Site Address:

4 The Chine
London
N10 3QA.

Report Contents

Page 1: Client Details / Site Address

Page 2 : Pile Details / Introduction / Test Method

Page 3: Testing Requirement / Location of Piles / Interpretation category / Conclusion

Appendix 1 = Table of piles reference numbers. **Number of pages 2**

Appendix 2 = Resultant traces (Reflectograms). **Number of pages 2**

Email: Richard@rptestingsolutions.co.uk, Admin@rptestingsolutions.co.uk

Address: Unit 9, Precision 4 Business Park, Bingham Way, Sittingbourne ME10 3FZ.

Web: www.RPTestingSolutions.co.uk Registered in England: 8817593

The information within this report remains the property of RP Testing Solutions Ltd and as such can not under any circumstance be duplicated.

PILE DETAILS

Pile Diameter: 350mm

Pile Type: Continuous Flight Auger (CFA)

Material: Concrete

Piles Tested: 6.

INTRODUCTION

R.P. Testing Solutions Ltd were commissioned by KHB Piling Limited on the 09 September 2022, to undertake low train Sonic Integrity testing on a number of installed cast in-situ foundation piles.

Sonic Integrity Testing is a fast and inexpensive method of checking for any defects that can occur within the material of pile shafts during or after the installation process.

TEST METHOD

Making sure that the head of the pile is clear of any surface water and spoiled material, a small accelerometer is placed on the concrete/grout at the head of the pile, by striking the pile with a nylon headed hammer a stress wave is generated travelling throughout the material of the pile shaft with a velocity of sound in concrete which is approximately 4000m/s.

Within a pile which is of a reliable Integrity the generated stress wave will travel the entire length of the shaft and at the impedance between the concrete and soil (toe response) the stress wave will be returned to the pile head. The placed accelerometer detects the returning sound wave and produces a reflectogram. From this information an interpretation can be performed to assess the Integrity of the piles.

Software and processing techniques used by the Profound SIT+ systems guarantee high quality results. Sonic Integrity Testing can determine the length of cast in-situ piles; however, any lengths given are always estimated assuming a stress wave velocity 4000m/s. From the results obtained on any pile, no information can be given on the load bearing capabilities.

SITE TEST REQUIREMENTS

The site requirements specify 100% of all working piles installed are to be Sonic Integrity Tested.

HEAD PREPARATION

All piles were tested at their final design level, after the heads had been prepared to a poor standard.

INTERPRETATION CATEGORY

CATEGORY 1	All piles are of a reliable Integrity throughout their entire installed Length.
CATEGORY 2	Piles require a further 300/500mm trimming due to the pile head having sustained damage during the excavation/breaking down process. Retest recommended.
CATEGORY 3	Reduction in cross sectional area has occurred within the material of the pile shaft.
CATEGORY 4	Anomaly present within the material of the pile shaft. Possible poor/segregated concrete/bore collapse being present. Further investigation recommended.
CATEGORY 5	A discontinuity has occurred within the material of the pile shaft. Unable to comment on the integrity of the pile throughout the entire length.

CONCLUSION

Based on the analysis and interpretation of the resultant traces obtained, it has been concluded that the 6 piles tested are a category 1 in the above table.

The opinions and interpretation of the resultant graphs recorded does not fall within the laboratory organizations scope of accreditation.

Issued & Checked by: Jack Dunk (Managing Director) Signed.....

Date of Issue: 12 September 2022

Email: Richard@rptestingsolutions.co.uk, Admin@rptestingsolutions.co.uk

Address: Unit 9, Precision 4 Business Park, Bingham Way, Sittingbourne ME10 3FZ.

Web: www.RPTestingSolutions.co.uk Registered in England: 8817593

The information within this report remains the property of RP Testing Solutions Ltd and as such can not under any circumstance be duplicated.

APPENDIX 1

TABLE OF PILE REFERENCE NUMBERS

Email: Richard@rptestingsolutions.co.uk, Admin@rptestingsolutions.co.uk

Address: Unit 9, Precision 4 Business Park, Bingham Way, Sittingbourne ME10 3FZ.

Web: www.RPTestingSolutions.co.uk Registered in England: 8817593

The information within this report remains the property of RP Testing Solutions Ltd and as such can not under any circumstance be duplicated.

Pile List

Number of Piles : 6.

Sort Order: Measurement > Pile Name

Extension:

Pile Name	Blows	Time	Date	Measurement
P1	3	11:08	09/09/2022	Category 1
P2	3	11:08	09/09/2022	Category 1
P3	3	11:09	09/09/2022	Category 1
P4	3	11:09	09/09/2022	Category 1
P5	3	11:10	09/09/2022	Category 1
P6	3	11:10	09/09/2022	Category 1

Note: The results document in this test report relate only to the pile reference numbers displayed in the above table.

APPENDIX 2

RESULTANT TRACES

Note: the graphs displayed in this appendix are an average of 3 test locations taken across the pile heads.

Email: Richard@rptestingsolutions.co.uk, Admin@rptestingsolutions.co.uk

Address: Unit 9, Precision 4 Business Park, Bingham Way, Sittingbourne ME10 3FZ.

Web: www.RPTestingSolutions.co.uk Registered in England: 8817593

The information within this report remains the property of RP Testing Solutions Ltd and as such can not under any circumstance be duplicated.

