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Resistograph Report

For

Oakfield Court, Wokingham
RG41 2SW

Prepared for Heritage Trees Ltd.

Prepared by Trevor Heaps BSc, MICFor, R. Arbor.A.

Date: 4th July 2025

Ref: TH 5320



Summary

Further to a recent visual tree assessment (VTA) of two mature Lime trees (see Figure 1), historic fire damage was noted and so a resistograph test was carried out to determine the extent and significance of any decay within the trees' lower stems.

This report provides the analysis and conclusions of the tests.

To summarise, apart from continuing with its current pruning regime, no work is required for Lime T1, but Lime T2 should be heavily reduced and managed as a smaller tree.

Figure 1



Unless otherwise stated, recommendations are made on the basis that trees will be re-inspected within 3 years from the date of the last inspection. However, all trees should be inspected after extreme and severe weather events, and in the event of any nearby disturbance that could adversely affect tree stability, such as mechanical excavations close to tree stems, or loss of sheltering trees.

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1.0 Introduction

1.1 I am Trevor Heaps, Director of Trevor Heaps Arboricultural Consultancy Ltd. I hold a First-Class Honours Degree in Arboriculture; I am a Chartered Arboriculturist and a professional member of the Institute of Chartered Foresters; and I am also a Registered Consultant with the Arboricultural Association. Further information about my qualifications and experience is provided in Appendix 1.

1.2 The basic principle in Law is that a tree owner has a duty to take reasonable care to protect those reasonably likely to be affected by their trees.

1.3 Subsequently, a tree owner, or those responsible for the tree(s), must take steps to ensure they are aware of foreseeable risks that may cause harm; and they should take appropriate remedial action to protect those who are reasonably likely to be affected.

1.4 Guidance issued by the Government, the Forestry Commission and the Arboricultural Association advises that a regular tree survey is undertaken by a suitably qualified tree expert. Failure to do so may leave those responsible liable to prosecution.

1.5 Contact details:

Who	Name	Organisation	Details
Arboricultural Consultant	Trevor Heaps	THAC Ltd. 12 Plover Drive, Milford-on-Sea, Hampshire, SO41 0XF	Tel: 07957 763 533 E-mail: trevor@trevorheaps.co.uk
Client		Heritage Trees Ltd.	
Wokingham Borough Council - LPA	Tree Officer	Shute End, Wokingham, Berkshire, RG40 1BN	Tel: 0118 974 6000 E-mail: treesandlandscape@wokingham.gov.uk

2.0 Instruction

2.1 We are instructed to carry out a resistograph test on two Limes.

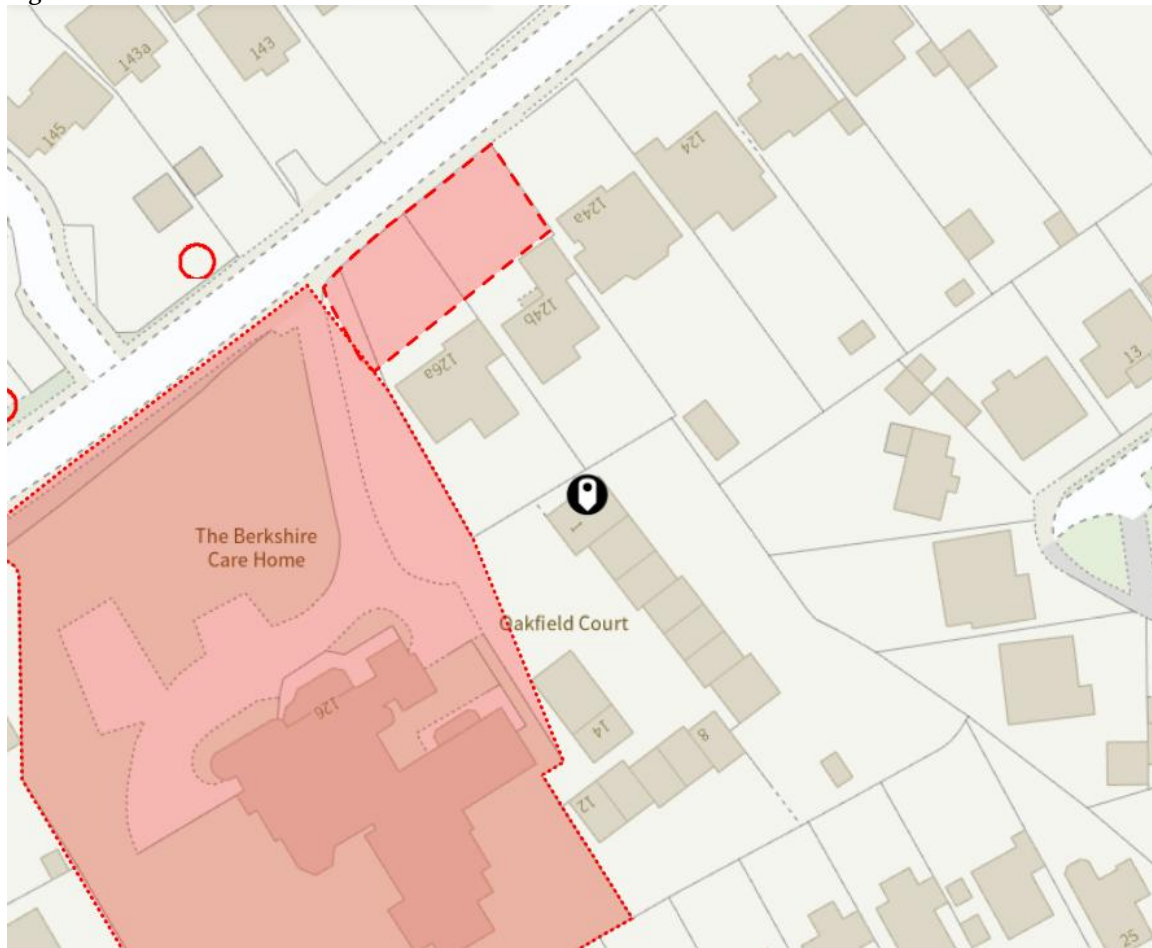
2.2 Based on the results of the resistograph test, we are instructed to provide a report to make recommendations to manage the tree's safety.

2.3 The purpose of this report is to demonstrate that the tree's condition has been checked by a suitably qualified tree expert and to ensure that all reasonable measures are taken to ensure that persons and property are not at risk of harm from the tree.

3.0 Statutory tree protection

3.1 According to the Council's website (see Figure 2) some trees adjacent to this site are covered by a Tree Preservation Order (TPO-0811-1996); which means that if any tree works are required (to the trees covered by the TPO), an application must be made to the Council.

Figure 2. Red shaded areas show TPO Areas.



4.0 Ecological constraints

4.1 The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) provides statutory protection to birds, bats and other species that inhabit trees.

4.2 These animals could impose significant constraints on the timing of any recommended tree works. You are therefore advised to seek advice from a suitably qualified ecologist prior to the start of any tree works.

5.0 The tree survey

5.1 The trees were tested from ground level with a IML Resistograph (PD400) by Trevor Heaps on the 2nd July 2025.

5.2 The weather was dry and visibility was good.

5.3 The drill graph readings for these assessments are provided at Appendix 5.

6.0 General description and condition of the tree

6.1 The two Limes are growing on the edge of a group of trees between The Berkshire Cre Home and Oakfield Court.

6.2 Both trees are bout 16-18m tall and have been lightly reduced in the past.

6.3 Both trees have historical fire damage on their lower stems. T1 isn't too badly affected but there is slight decay showing in the top part of the lower stem of T2.

6.4 Both trees are quite quickly laying down reaction wood along the edges of the wounds.

Photo 1. T1 is on the right, T2 is on the left



7.0 Results

7.1 Lime T1

7.2 Lime T1 has a stem diameter of 495mm which means that (based on research by Mattheck & Breloer (1995) it needs a minimum wall thickness of 74mm to safely support it.

7.2 Readings were taken at 1.5m up the stem. The amount of sound wood was measured as follows:

- Northern side – 400 mm
- Eastern side – 400 mm
- Southern side – 400 mm
- Western side – 360 mm

7.3 Lime T2

7.2 Lime T1 has a stem diameter of 590mm which means that (based on research by Mattheck & Breloer (1995) it needs a minimum wall thickness of 88mm to safely support it.

7.2 Readings were taken at 1.5m up the stem. The amount of sound wood was measured as follows:

- Northern side – 00 mm*
- Eastern side – 180 mm
- Southern side – 380 mm
- Western side – 340 mm

* Note. The drill automatically extracted at 20mm, but when tested with a screwdriver, there was solid wood after about 40-50mm (the drill extracted because of the thin layer of decayed wood).

8.0 Discussion

8.1 The resistograph test for Lime T1 showed that, although there is a large wound in the stem, the decay is superficial and there is barely any decay present.

8.2 The resistograph test for Lime T2 showed there was slightly more degradation than Lime T2, but that there was still enough sound wood to support it. However, there was further decay further up the stem / wound at about 4m above ground level (above the height I was able to test).

9.0 Recommendations

9.1 Both trees are already managed by light crown reductions. Lime T1 should continue this management (re-pruning about every 5 years), but the Lime T2 should be reduced slightly further than this to reduce the sail effect of the crown acting on the lower stem.

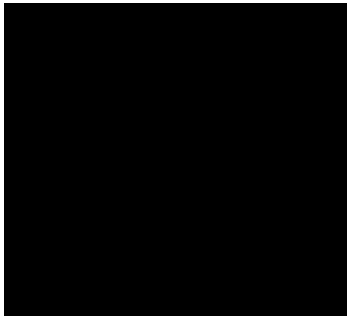
9.2 I would suggest that a crown reduction of around 6-8m in total height and about 3-4m in total width would suffice; the tree should then be managed at this smaller size with regular crown reductions.

9.3 Lime T2 should be re-tested with a Resistograph about every 5 years to track the progress of the decay. It might be the case that a further reduction in height becomes necessary.

10.0 Signature

10.1 This report represents a true and factual account of all potential arboricultural issues and makes recommendations for appropriate remedial action.

Signed



Trevor Heaps

Chartered Arboriculturist

BSc (Hons), MArborA, MICFor.

Dated

4th July 2025

Appendix 1 - Professional résumé

I am Trevor Heaps, Director of Trevor Heaps Arboricultural Consultancy Ltd. I hold a First-Class Honours Degree in Arboriculture; I am a Chartered Arboriculturist and a professional member of the Institute of Chartered Foresters; and I am also a Registered Consultant with the Arboricultural Association.

Professional training

- Arboriculture and Bats: Scoping Surveys for Arborists (BCT & AA) – October 2017
- Tree Science (AA) – June 2016
- OPM (Oak Processionary Moth) Training (FC) – May 2016
- Visual Tree Assessment (Arboricultural Association) - October 2015
- Trees and the Law (Dr Charles Mynors) - June 2015
- Mortgage (Home Buyers) Report Writing (LANTRA / CAS) - February 2015
- Tree Preservation Orders - effective application (LANTRA / CAS) - November 2014
- Professional Tree Inspection 3-day course (LANTRA / AA) - July 2014
- Arboricultural Consultancy Course (AA) - May 2014
- Further down the subsidence trail 1-day course (AA) - April 2013
- Getting to grips with subsidence 1-day course (AA) - November 2012

AA – Arboricultural Association

BCT – Bat Conservation Trust

CAS – Consulting Arborist Society

FC – Forestry Commission

Appendix 2 - Tree data schedule

Ref	Species	Comments	Likelihood of problem occurring within 3 years	Risk Index (0-100 / low-high)	Recommendations	Priority	When to re-inspect
T1	Tilia X europaea (Common Lime)	Historic bonfire damaged noted. Edges are sealing.	Unlikely or N/A	0	Re-prune about every 5 years.	3-5 years	Within 3 years
T2	Tilia X europaea (Common Lime)	Historic bonfire damaged noted. Edges are sealing. Decay noted at around 4m.	Possible	9.375	Crown reduce by 6-8m in total height and about 3-4m in total width. Manage at this smaller size with regular crown reductions.	1-3 years	Within 3 years

Appendix 3 - Tree data schedule explanatory notes

This section explains the terms used in the **Tree data schedule** (Appendix 2).

Ref: Each item of vegetation has its own unique number prefixed by a letter such that:

T1=Tree **S2**=Shrub or stump **G3**=Group **H4**=Hedge **W5**=Woodland

Species: Common names are given (with Latin names given in brackets)

Comments: Tree form and pruning history are recorded along with an account of any significant defects

Likelihood of failure or problem occurring: The tree surveyor's opinion on how likely it is the tree or part of it will fail or cause an issue (such as direct or indirect damage) within 1 year.

Risk Index: An estimate of risk (0 = no risk to 100 = very high risk) based on a calculation made from the assumed occupancy, the size of the tree (or defect) and the assumed likelihood of a problem occurring (see above). This allows work to be prioritised.

Recommendations: These are based on any defects / problems observed and are intended to ensure that the tree is maintained in an acceptable condition.

Priority: Depending upon the threat posed by the tree, and the likelihood of a problem occurring, any recommendations made should be carried out within the prescribed timescales.

When to re-inspect: The suggested interval before the next inspection should be carried out.

Appendix 4–References

¹OPSTD/Agriculture and Waste Recycling Sector/ Agriculture Safety Section (2015), *Management of the risk from falling trees or branches*. Available at https://www.hse.gov.uk/foi/internalops/sims/ag_food/oio705.htm# (Accessed: 14 January 2020).

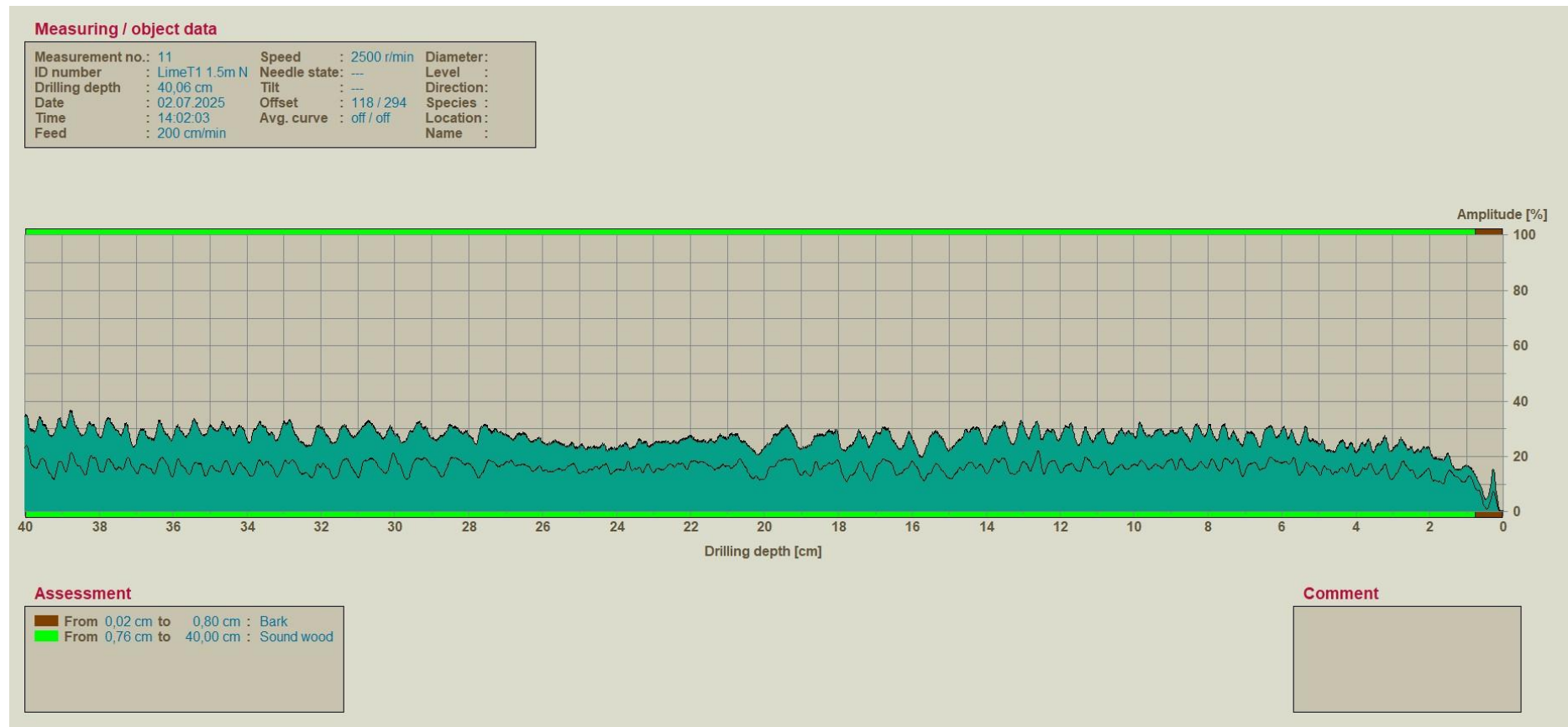
²Forestry Commission (2011), *Common sense risk management of trees, Managing trees for safety*.

³Arboricultural Association (2016), *Tree Surveys: A guide to good practice, Guidance Note 7*.

⁴Mattheck & Breloer (1994), *The Body Language of Trees*, 1994.

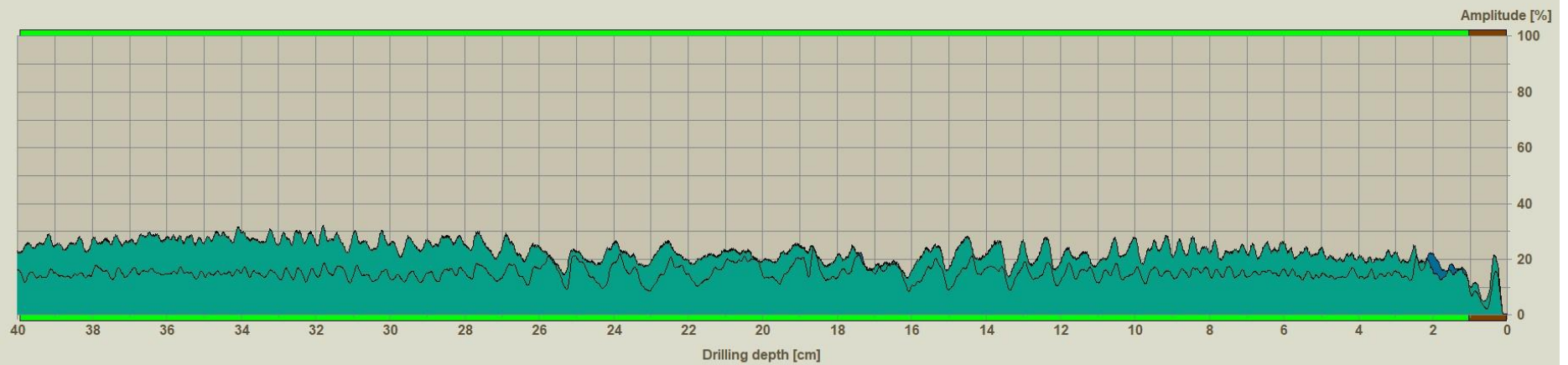
⁵Watson and Green (2011), *Fungi on Trees – an Arborists' Field Guide*.

Appendix 5-Readings



Measuring / object data

Measurement no.:	12	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT1 1.5m E	Needle state:	---	Level	:
Drilling depth	: 40.05 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 108 / 291	Species	:
Time	: 14:02:45	Avg. curve	: off / off	Location	:
Feed	: 200 cm/min	Name	:		



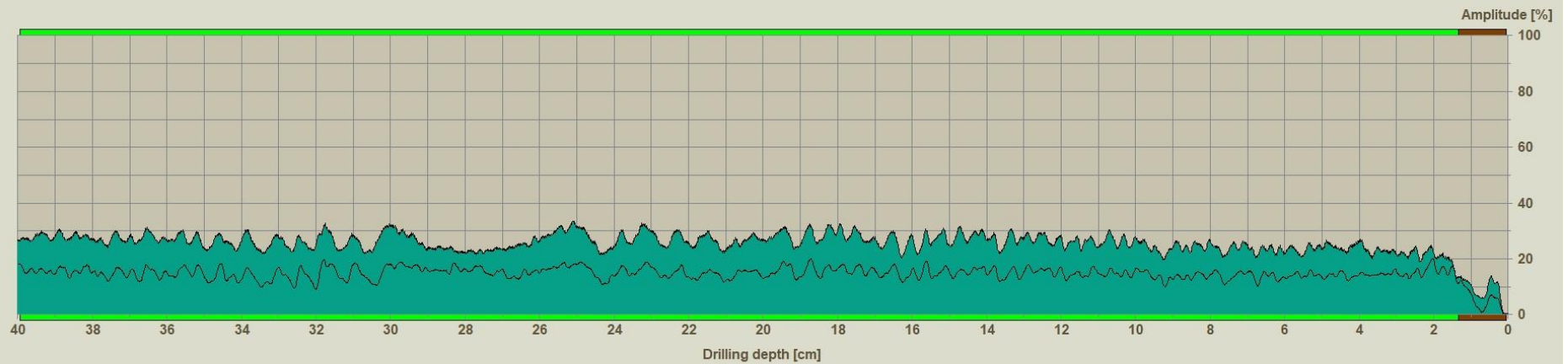
Assessment

From 0.02 cm to 1.03 cm	: Bark
From 1.05 cm to 39.95 cm	: Sound wood

Comment

Measuring / object data

Measurement no.:	13	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT1 1.5m S	Needle state:	---	Level	:
Drilling depth	: 40,05 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 108 / 295	Species	:
Time	: 14:03:27	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



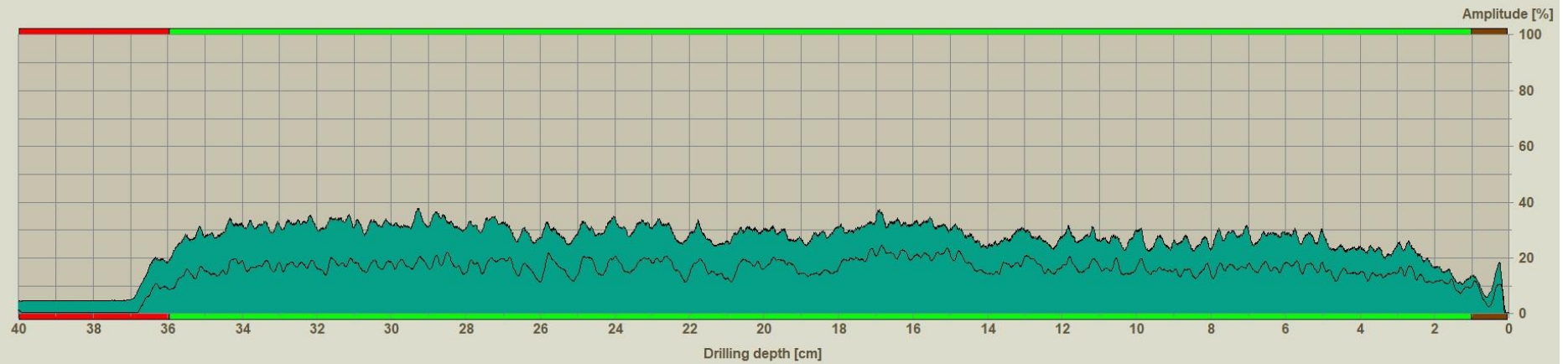
Assessment

From 0,05 cm to 1,35 cm	: Bark
From 1,35 cm to 39,95 cm	: Sound wood

Comment

Measuring / object data

Measurement no.:	14	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT1 1.5m W	Needle state:	---	Level	:
Drilling depth	: 40,04 cm	Tilt	:	Direction:	
Date	: 02.07.2025	Offset	: 108 / 324	Species	:
Time	: 14:04:10	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



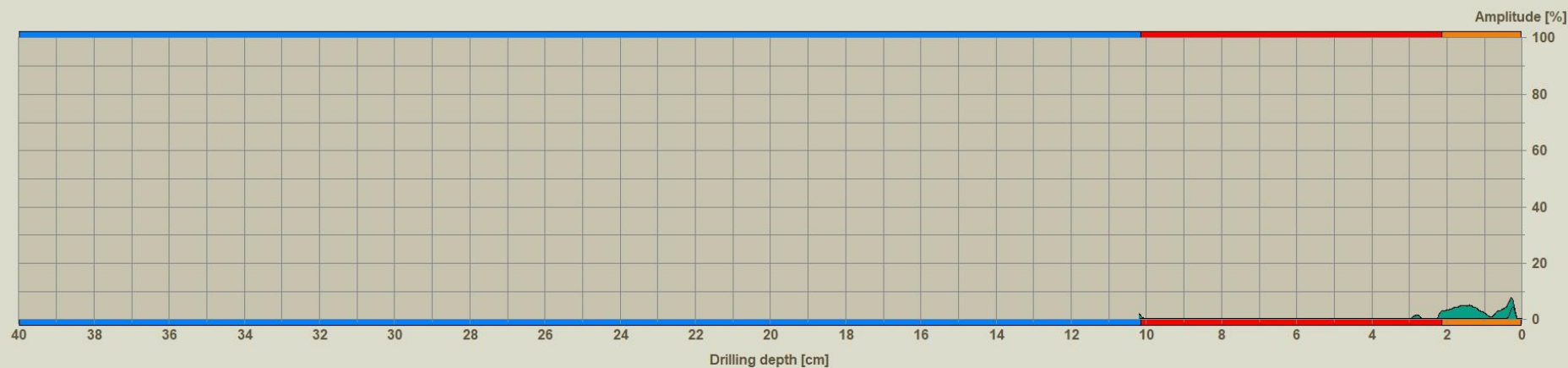
Assessment

From	0,05 cm to	1,01 cm	: Bark
From	1,01 cm to	36,00 cm	: Sound wood
From	36,97 cm to	39,98 cm	: Cavity

Comment

Measuring / object data

Measurement no.:	16	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT2 1.5m N	Needle state:	---	Level	:
Drilling depth	: 10,20 cm	Tilt	---	Direction:	
Date	: 02.07.2025	Offset	: 108 / 282	Species	:
Time	: 14:11:12	Avg. curve	: off / off	Location	:
Feed	: 200 cm/min	Name	:		



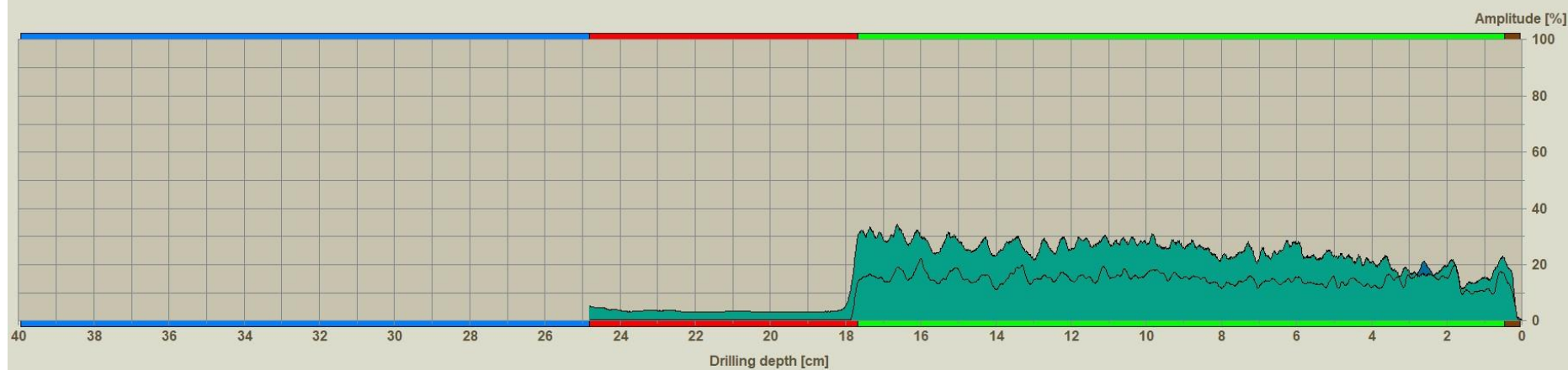
Assessment

From	0,02 cm to	2,17 cm	: Degraded wood
From	2,15 cm to	10,16 cm	: Cavity
From	10,14 cm to	39,98 cm	: Needle exit

Comment

Measuring / object data

Measurement no.:	17	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT2 1.5m E	Needle state:	---	Level	:
Drilling depth	: 24.82 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 109 / 285	Species	:
Time	: 14:11:39	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



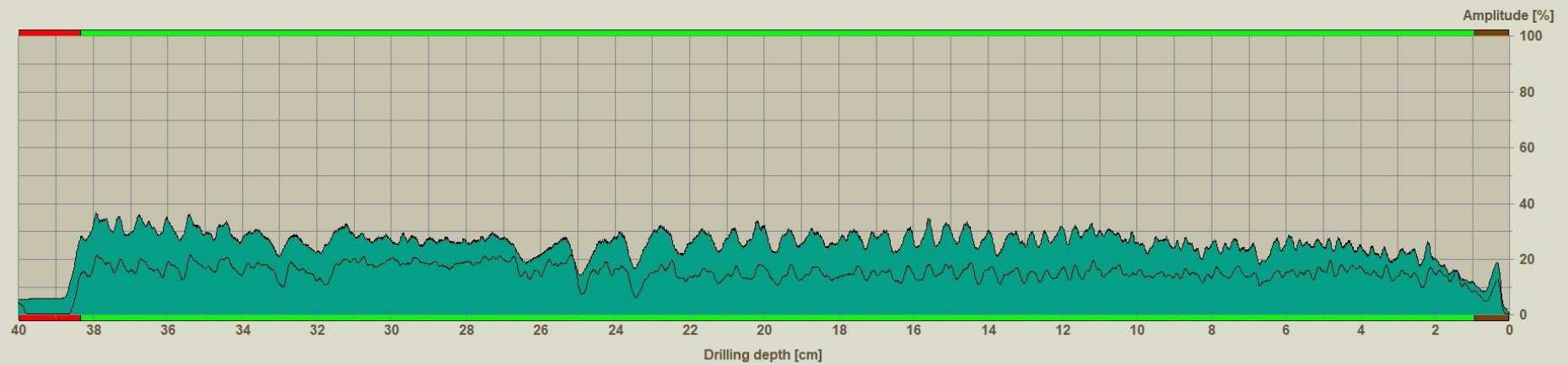
Assessment

From	0.05 cm	to	0.48 cm	:	Bark
From	0.48 cm	to	17.67 cm	:	Sound wood
From	17.67 cm	to	24.81 cm	:	Cavity
From	24.81 cm	to	39.95 cm	:	Needle exit

Comment

Measuring / object data

Measurement no.:	18	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT2 1.5m S	Needle state:	---	Level	:
Drilling depth	: 40,04 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 104 / 285	Species	:
Time	: 14:12:09	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



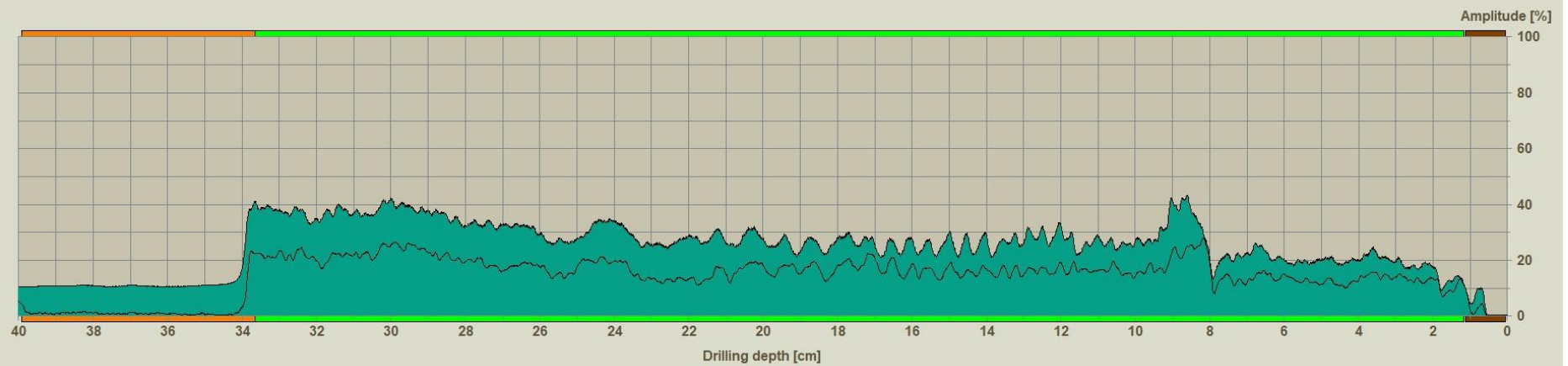
Assessment

From	0,02 cm	to	0,96 cm	:	Bark
From	0,94 cm	to	38,33 cm	:	Sound wood
From	38,33 cm	to	39,98 cm	:	Cavity

Comment

Measuring / object data

Measurement no.:	19	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT2 1.5m W	Needle state:	---	Level	:
Drilling depth	: 40,04 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 100 / 283	Species	:
Time	: 14:12:50	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



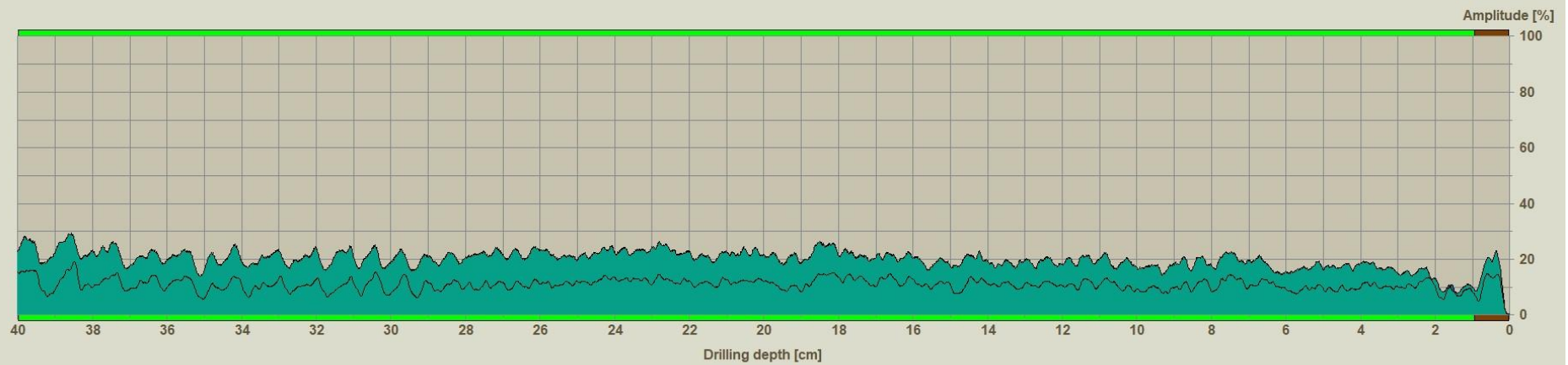
Assessment

From	0,05 cm to	1,14 cm	: Bark
From	1,17 cm to	33,66 cm	: Sound wood
From	33,66 cm to	39,93 cm	: Degraded wood

Comment

Measuring / object data

Measurement no.:	20	Speed	: 2500 r/min	Diameter:	
ID number	: LimeT3C	Needle state:	---	Level	:
Drilling depth	: 40,05 cm	Tilt	: ---	Direction:	
Date	: 02.07.2025	Offset	: 103 / 283	Species	:
Time	: 14:18:32	Avg. curve	: off / off	Location:	
Feed	: 200 cm/min	Name	:		



Assessment

From 0,02 cm to 0,94 cm	: Bark
From 0,96 cm to 39,98 cm	: Sound wood

Comment