MDJ ARBORICULTURAL CONSULTANCY LIMITED

Arboricultural ASSOCIATION
Professional Member

TREE RISK ASSESSMENT REPORT

For one English oak (T45) on communal land at Broadacres Estate, Huntley Mews, Southwater, West Sussex, RH13 9FD

Prepared For:	Courtney Green Limited
Local Authority:	Horsham District Council (HDC)
Document reference:	MDJAC-DA24104-TRAR-01
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EXECUTIVE SUMMARY

S1. The subject tree is a mature and prominent specimen from internal views within the recently completed Broadacres development. However, its prominence to the wider public, with the exception of a short stretch of public footpath that extends beneath the canopy on the southern side, is less pronounced due to screening by the new properties. Nonetheless, it was afforded statutory protection by a TPO in 2010 prior to the site's development and so consent from the local authority is required before carrying out any material works.

S2. The tree is of reasonable vigour and physiological function, such that it may have the ability to produce additional resources with which to lay down response wood to mitigate the impact of basal decay. However, the combination of a slow-growing tree species at its mature life stage, and the aggressive nature of the fungus, could result in the rate of decay surpassing the rate of response wood development. Moreover, the pattern of decay associated with *G. resinaceum* can be unpredictable.

S3. The canopy of the tree has been reduced in the past, but any proposal to prune the tree for risk mitigation purposes would likely have to be relatively severe and beyond the previous pruning wounds. As a species, oak does not generally tolerate heavy pruning well and so pruning as a means of effective risk mitigation is unlikely to be appropriate or effective, particularly in the long-term, and could result in the tree's vitality diminishing as a result. This would in all likelihood reduce the tree's ability to tolerate the fungus and increase the rate of decay.

S4. Whilst I acknowledge the positive visual impact of the tree within the grassed area on approach, its removal also would provide significant opportunities for replacement tree planting, which could be of a large-growing species that is able to reach similar proportions in time. A newly planted tree will not begin to mitigate the loss of the ecosystem benefits provided by the current tree for some 20 years or more, but the new tree will, in time, become a valued arboricultural feature in a prominent location.

1. **Section fell the tree to ground level and grind out the resulting stump; and**

2. **Replace with at least one tree at Extra Heavy Standard size (circa. 3.5m tall with a trunk girth of 14-16cm at planting). Species selection to be agreed with the local planning authority, but might include another oak, lime, London plane, chestnut or beech.**

1 INTRODUCTION

1.1 INSTRUCTION

1.1.1. This Tree Risk Assessment Report (TRAR) has been instructed by Courtney Green Limited, the Managing Agent of the subject land, following recommendations for such as part of a previous tree survey that I carried out in July 2022.

1.2 TERMS OF REFERENCE (TOR)

1.2.1. This report is intended to inform The Client of the condition of one English oak tree following the discovery of areas of bark necrosis, to quantify the extent of decay using diagnostic equipment, and to evaluate the risk of failure.

1.2.2. The agreed scope of work is outlined below:

1. To visit the site and carry out a Visual Tree Assessment (VTA) (Mattheck & Breloer, 1994);
2. To undertake an Advanced Level assessment of the lower trunk using a resistance drill, in accordance with the VALID Tree Risk Management and Assessment methodology; and
3. To produce this TRAR, which outlines the condition of the tree, and makes recommendations where risks exist.

1.2.3. This report should be read in conjunction with the documents and plans listed below for context:

- Detailed Assessment (VALID) [**Appendix 1**];
- The resistance drill data [**Appendix 2**]; and
- The VALID Tree Risk-Benefit Management and Assessment method [**Appendix 3**].

1.3 AUTHOR

1.3.1. I am Matthew Jones BSc (Hons), MArborA, the Director and Principal Arboriculturist of MDJ Arboricultural Consultancy Limited.

1.3.2. I hold a Bachelor of Science Degree with Honours in Arboriculture and Urban Forestry, awarded by The University of Central Lancashire (UCLan) in 2022. This is a top up degree following successful completion of a Foundation Degree in Arboriculture, also awarded by UCLan in 2020. I have also completed the National Diploma (RQF Level 3) in Arboriculture and Forestry at Merrist Wood College, Guildford in 2009.

1.3.3. During the course of my career I have attended various CPD events and courses. I hold the Professional Tree Inspection accreditation awarded by LANTRA, and am a registered user of the VALID Tree Risk-Benefit Management and Assessment framework (A 'Validator'), and was previously a registered user of The International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ) methodology, which expired in 2021.

1.3.4. I am a Professional Member of the Arboricultural Association (The AA) and an Associate Member of The Institute of Chartered Foresters (The ICF). I am therefore bound by the code of ethics and required to uphold the professional standards expected of both professional bodies.

1.3.5. Since transitioning from practical arboriculture in 2014, I have regularly been instructed to carry out appraisals of various sizes of tree stocks in relation to development, health and safety considerations, and the potential impact of trees on the built environment; and I am required to provide considered tree management recommendations as necessary during the course of these instructions.

2 STATUTORY CONTROLS

2.1 TREE PRESERVATION ORDERS (TPOS)

2.1.1. I have consulted the local authority website's online mapping service (Horsham District Council, 2024) for the existence of Tree Preservation Orders (TPOs). This search suggests that the subject tree is afforded statutory protection under designation 'T1' within the Horsham District Council (Land North of Old School, Worthing Road, Southwater) Tree Preservation Order 2010.

2.1.2. Consequently, it will be necessary to request and obtain permission from the local authority before carrying out any substantial works to the tree.

2.2 CONSERVATION AREAS (CAS)

2.1.3. The site is not within a conservation area, and therefore there are no arboricultural constraints in this regard.

3 VALID TREE RISK-BENEFIT ASSESSMENT METHOD SUMMARY

3.1 LEVELS OF ASSESSMENT

3.1.1. **Passive Assessment:** passive assessment is carried out as an ongoing informal observation exercise, usually by the owner and or staff of a particular site, during the day-to-day routine. If passive assessment is undertaken by non-arboriculturists, no risk assessment should be made, but the named arboriculturist should be made aware of any potential risk features and will subsequently provide the necessary advice. **Appendix 3** provides a summary of potential risk features.

3.1.2. **Active Assessment:** active assessment is a purposeful visit made by a qualified arboriculturist, to identify and evaluate any potential risk features within the tree stock. There are three levels of assessment, ranging from 'Basic' (tree inspected, but no risk features identified), 'Detailed' (risk features identified and evaluated using the VALID App to generate a standalone report), to 'Advanced' (risk features identified and assessed in depth, usually aided by specialist diagnostic equipment).

3.2 UNDERSTANDING TREE RISK

3.2.1. Trees are dynamic organisms that are the subject of continual change and adaptation to their given environments. As such, they are complex organisms that are able to successfully adapt to structural defects. Features such as trunk hollows do not necessarily constitute a defect, and do not necessarily weaken the tree, subject to the tree's capacity to produce adaptive growth being sufficient enough to compensate for the loss of internal wood through decay, and provided that the tree's height to diameter ratio is sufficiently low (National Tree Safety Group, 2024).

3.2.2. The aging process for trees, particularly during the latter stages of maturity, often involves the development of decay and the shedding of branches. These are natural phenomena that do not necessarily suggest the tree's imminent demise; but they can represent a risk to persons or property and as such, require management (National Tree Safety Group, 2024).

3.2.3. Statistics on tree-related injuries suggest that the annual risk of being killed by a falling tree, either in whole or in part, is around 1:15,000,000 [one in fifteen million] (National Tree Safety Group, 2024).

3.2.4. The number of non-fatal injuries between 2000 and 2010 associated with being struck by trees is approximately 55, which is very small compared with the number of leisure related injuries, estimated to be circa. 2.9m per year. Of these, footballs (262,000), children's swings (10,900) and even wheelie bins (2,200) are involved in significantly more incidents on an annual basis (National Tree Safety Group, 2024).

3.2.5. Accordingly, it is imperative to maintain this perspective when assessing the risk posed by trees, in order to avoid unnecessary tree removals or pruning, and thus, diminishing the wider positive benefits and services that trees provide society.

3.3 TREE RISK RATINGS

3.3.1. The valid system comprises four easy to understand risk ratings, summarised below, which are generated using the Tolerability of Risk Framework (ToR) and ISO 31000 – Risk Management. Full details are provided within the accompanying method.

- **Red - Not Acceptable** – risks will be reduced to an Acceptable level;
- **Amber – Not Tolerable** – risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks;
- **Amber – Tolerable** – risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks; and
- **Green – Acceptable** – risks will not be reduced.

3.4 RECOMMENDATION TYPES

Risk mitigation works

3.4.1. The VALID methodology dictates when remedial works should be undertaken, based on the above risk ratings. Consequently, it is possible for a Detailed Assessment to conclude that a tree carries an Acceptable risk, and that therefore, there is no requirement to carry out any remedial works in the interests of risk mitigation.

3.4.2. Put simply, the benefits of such trees will often outweigh the risks they pose and therefore, the VALID system does not require any works to take place. The benefits in risk-reduction works to these trees by carrying out tree surgery works is negligible and will often result in unnecessary expenditure.

Tree management works

3.4.3. However, it is also possible that trees which pose an Acceptable risk may simultaneously benefit from routine or proactive management works, such as canopy reduction work or selective branch removal, to prevent further structural issues in the future.

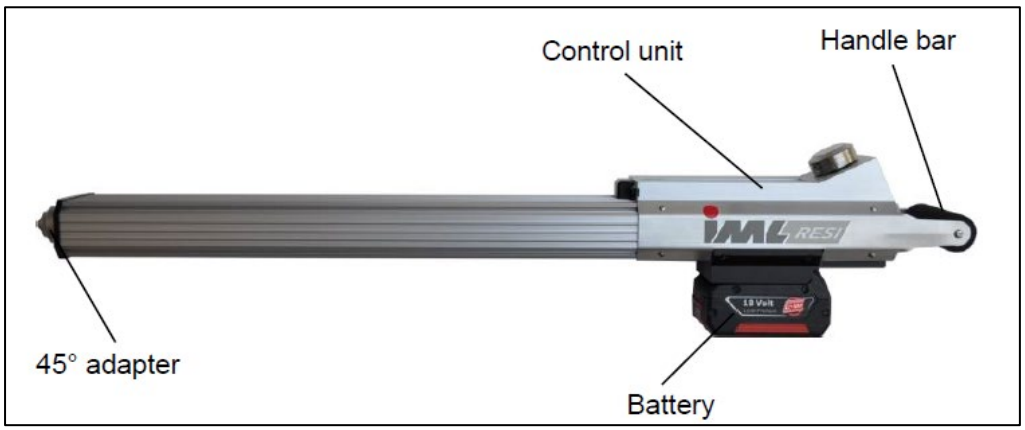
3.4.4. Any recommendations made in this regard are subject to the Client's preference, and are not strictly necessary for the purposes of mitigating risk.

4 RESISTANCE DRILLING METHODOLOGY

4.1 RESISTANCE DRILLING OF TREES

4.1.1. To provide additional information on the internal condition of the trunk wood within the subject trees, an advanced assessment was undertaken using a resistance drill; the IML PD400 drill was used on this occasion.

Figure 1: showing the IML PD400 drill (Instrumenta Mechanik Labor System GmbH (IML), 2023).

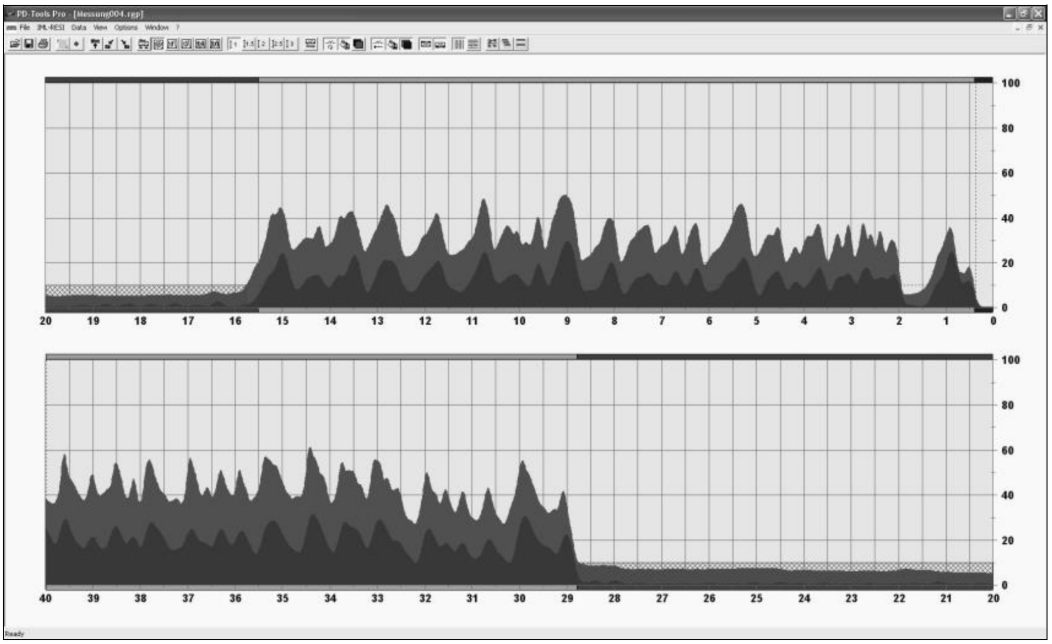


4.1.2. The resistance drill comprises a 400mm drilling 'bit' which is attached to an electronic unit that records, amongst other parameters, needle speed and needle resistance. The electronic unit produces a

graphical representation of the data which is read from right to left; with the drilling depth (cm) noted along the X axis, and the amplitude (%) along the Y axis.

4.1.3. By analysing the data, it is possible to gain further insight into the internal condition of the wood, such as identification of areas of incipient or extensive decay which are depicted as a significant loss of resistance on the software-produced graphs. Such information might not necessarily be evident from a ground-based, visual-only inspection, but is beneficial when underlying decay is suspected.

Figure 2: example graph of a completed measurement (Instrumenta Mechanik Labor System GmbH (IML), 2023).



4.1.4. To provide an overall view of the tree at any one height, it is good practice to carry out at least four readings at the cardinal points. As the drill bit is 400mm long, this approach enables a complete cross-section assessment of trees with a diameter at inspection point of 800mm, and provides a partial assessment of trees with larger diameters at the inspection point(s).

5 TREE SURVEY DETAILS

5.1 SITE VISIT AND TREE INSPECTION

5.1.1. I undertook a site inspection and tree survey on Wednesday 9 October 2024. Weather conditions overcast and damp following rain; deciduous trees were in full leaf.

5.2 LIMITATIONS

5.2.1. The dimensions and assessment of the tree contained within this document reflect its condition at the time of the survey. I surveyed the tree from within the boundaries of the site, and from the surrounding publicly accessible areas. The presence of additional physiological or structural defects that

are only visible from restricted-access viewpoints, such as through the lower canopy or from an aerial perspective, cannot be discounted.

5.2.2. The tree was surveyed from ground level only, aided by the use of binoculars where considered necessary. Other aids included an acoustic hammer and a steel probe and a resistance drill (detailed above), all of which were used where necessary to confirm the extent of any dysfunctional wood, cavities, and other morphological defects.

5.2.3. Trees are dynamic organisms that are able to adapt to changes to their growing environments, and to environmental conditions. Therefore, this survey does not take account of such environmental changes in the future, the potential for damage associated with anti-social behaviour, fire, or other such factors.

5.2.4. I collected the baseline data using a handheld tablet, which was then exported to produce the detailed tree assessment at **Appendix 1**.

5.3 Observations and Discussion

5.3.1. I first inspected this tree in July 2022, at which point, I noted the presence of areas of necrotic bark on the east and west aspects of the trunk. Such areas are indicative of underlying dysfunction, particularly given that the former attachment points, and the unidentifiable, desiccated remains, of old fruiting bodies were also noted.

Photograph 1: (below left), showing areas of necrotic bark on the south-east side of the tree in July 2022; and

Photograph 2: (below right), showing the same area of necrosis in October 2024.





5.3.2. However, during my recent inspection, the fruiting bodies had grown, and appear to be of the decay fungi *Ganoderma resinaceum*; an aggressive decay fungus affecting the principal roots and lower trunk of the host tree (Schwarze, 2007).

Photograph 3: (below left), showing the locations of fruiting bodies on the west aspect of the trunk; and

Photograph 4: (below right), close up showing the distinctive appearance of Ganoderma resinaceum.



5.3.3. Fungi decay wood in different ways, based on the constituent part of the wood formation that is degraded. Wood is comprised of three principal constituents and the order and rate at which each is broken down is dependent upon the mode of decay of the fungi in question. The three wood constituents are: **cellulose**, **hemicellulose** and **lignin** (see glossary of terms).

5.3.4. *Ganoderma resinaceum* causes a **white rot** that can be of selective nature, by degrading the lignin and hemicellulose constituents, leaving cellulose largely intact. This leads to the wood being lighter in weight and colour, but stringier and without the compressive strength provided by lignin. Accordingly, it is important to carry out thorough diagnostic testing to ascertain the quality of the internal wood in light of the fungus's ability to rapidly degrade previously sound wood, and so a resistance drill was used for this purpose.

5.3.5. Test sites were dictated by the morphology of the base and the location of the visual defects. Therefore, I assessed the wood at 200mm, 500mm, 1m and 1.5m above ground level in the four cardinal points. However, as this fungus is known to prompt the formation or swelling of buttress roots, I also carried out tests on the principal buttress roots. A summary of these tests are provided below.

5.3.6. The resistance drill testing confirms that an irregular-shaped area of decay exists within the central body of the trunk, biased towards the north and western regions. It would be reasonable to conclude from this that there is also likely to be some extent of decay to the primary roots on this side of the trunk, particularly given the lack of buttress roots on the western aspect, and the confirmed decay within the buttress roots on the north-west, north, north-east, south, and south-east sides.

Figure 3: showing the extensive decay at 200mm on the north aspect.

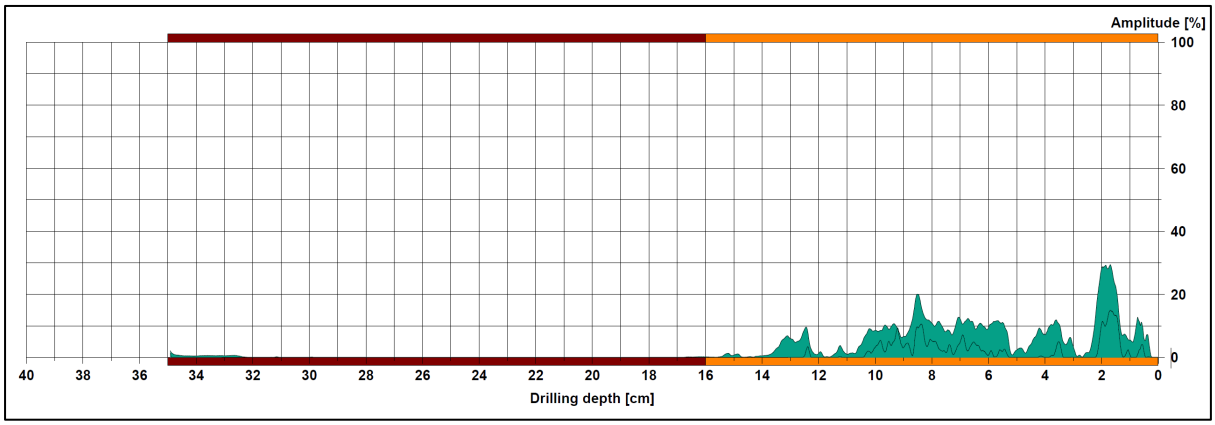


Figure 4: showing the extensive decay at 500mm on the west aspect.

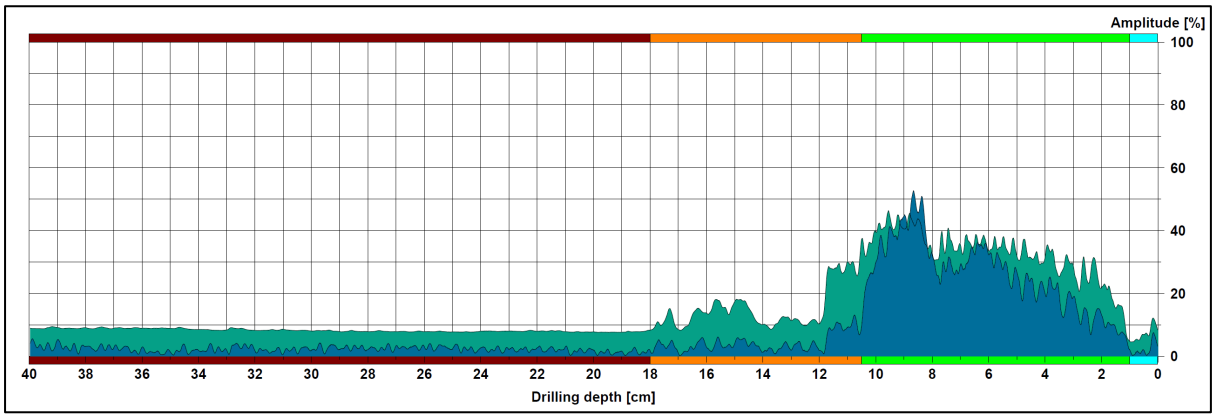


Figure 5: showing the extensive decay within the buttress root at 300mm on the north-west aspect.

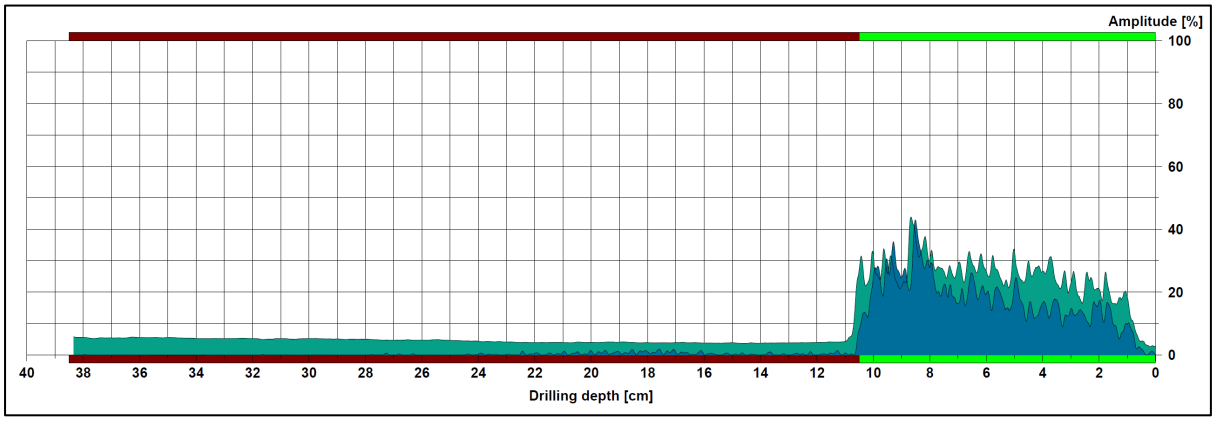


Figure 6: showing the results of the test at 200mm on the east aspect, showing broadly sound wood initially, but highlighting the eastern edge of the area of decay at 33cm.

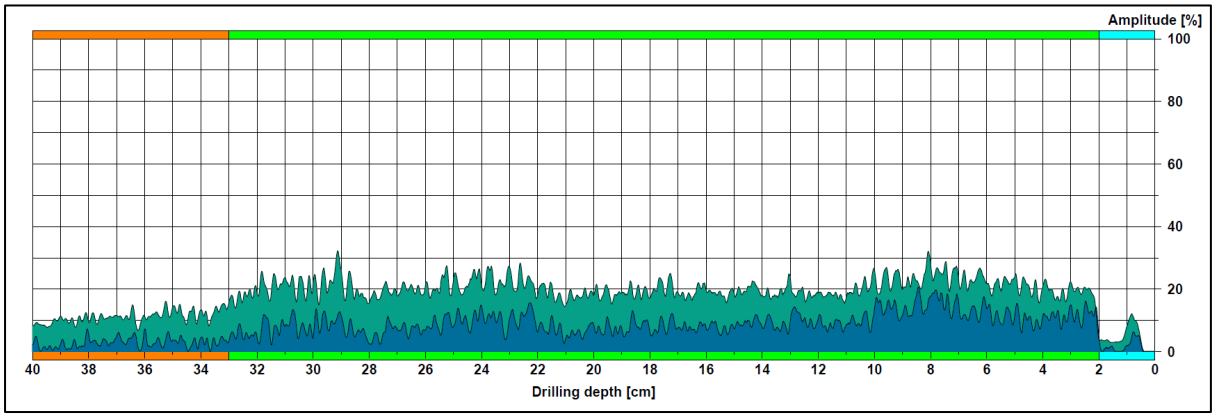
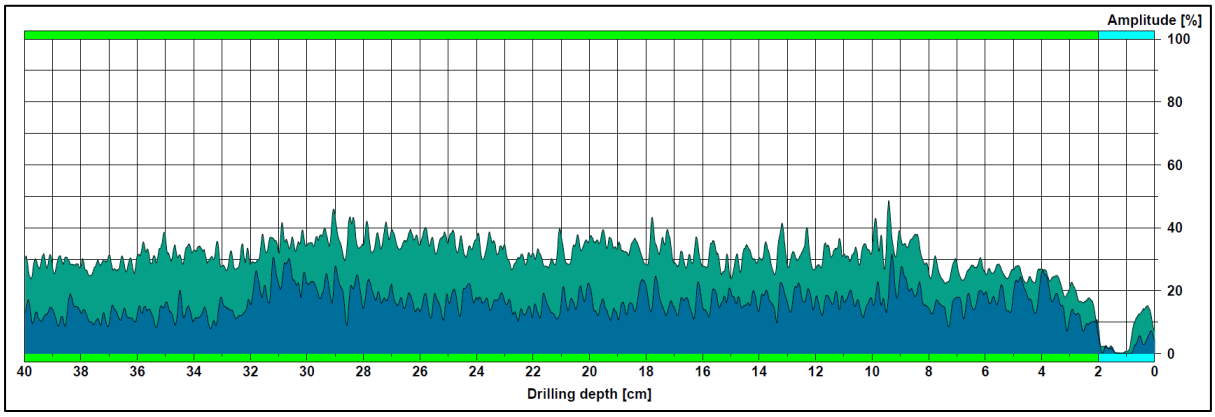


Figure 7: showing the broadly sound wood at 500mm on the southern aspect.



5.3.7. As shown above, the south and south-eastern areas of the base appear to be in better condition at present. However, in light of the aggressive nature of the fungus in question, which is known be unpredictable, has the ability to overcome the reaction zones laid down by trees in an attempt to compartmentalise decay (Schwarze, 2007), and to significantly and detrimentally affect tree stability (Nicolotti, Gonthier, Guglielmo, & Garbelotto, 2009), the prospects for the subject tree are poor. Indeed, I have personally known of one example of this particular tree and fungi relationship that resulted in total tree failure and significant damage to multiple residential properties whilst maintaining a healthy-looking canopy. Therefore in my view, it will be necessary to intervene through proactive tree surgery works.

5.3.8. I have considered the potential of significantly reducing the size of the tree to retain some of the trunk wood for habitat and biodiversity benefits as an alternative to complete removal. However, any form of retention is likely to require a programme of further inspection, the potential for repeat works and ultimately, will continue to pose a residual risk to users of the open space in which it stands; and to pedestrians using the adjacent public right of way. Whilst this residual risk may be low, the decay caused by this particular fungus can be unpredictable.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

6.1.1. The subject tree is a mature and prominent specimen from internal views within the recently completed Broadacres development. However, its prominence to the wider public, with the exception of a short stretch of public footpath that extends beneath the canopy on the southern side, is less pronounced due to screening by the new properties. Nonetheless, it was afforded statutory protection by a TPO in 2010 prior to the site's development and so consent from the local authority is required before carrying out any material works.

6.1.2. The tree is of reasonable vigour and physiological function, such that it may have the ability to produce additional resources with which to lay down response wood to mitigate the impact of basal decay. However, the combination of a slow-growing tree species at its mature life stage, and the aggressive nature of the fungus, could result in the rate of decay surpassing the rate of response wood development. Moreover, the pattern of decay associated with *G. resinaceum* can be unpredictable.

6.1.3. The canopy of the tree has been reduced in the past, but any proposal to prune the tree for risk mitigation purposes would likely have to be relatively severe and beyond the previous pruning wounds. As a species, oak does not generally tolerate heavy pruning well and so pruning as a means of effective risk mitigation is unlikely to be appropriate or effective, particularly in the long-term, and could result in the tree's vitality diminishing as a result. This would in all likelihood reduce the tree's ability to tolerate the fungus and increase the rate of decay.

6.1.4. Whilst I acknowledge the positive visual impact of the tree within the grassed area on approach, its removal also would provide significant opportunities for replacement tree planting, which could be of a large-growing species that is able to reach similar proportions in time. A newly planted tree will not begin to mitigate the loss of the ecosystem benefits provided by the current tree for some 20 years or more, but the new tree will, in time, become a valued arboricultural feature in a prominent location.

6.1.5. Accordingly I set out my recommendation below.

6.2 RECOMMENDATIONS

1. **Section fell the tree to ground level and grind out the resulting stump; and**

2. **Replace with at least one tree at Extra Heavy Standard size (circa. 3.5m tall with a trunk girth of 14-16cm at planting). Species selection to be agreed with the local planning authority, but might include another oak, lime, London plane, chestnut or beech.**

Matthew Jones

Matthew Jones, BSc (Hons), MArborA
Director & Arboriculturist
11 October 2024

REFERENCES

Horsham District Council. (2024). *Tree Preservation Order Mapping*. Retrieved October 11, 2024, from https://horsham.maps.arcgis.com/apps/webappviewer/index.html?id=adef72243c0f4cd2bd839174098ccdb6

Humphries, D., & Wright, C. (2021). *Fungi on trees - a photographic reference*. Stroud Green, UK: Arboricultural Association.

Instrumenta Mechanik Labor System GmbH (IML). (2023). *IML-RESI PD Series manual and warrenty term and conditions*. Wiesloch, Germany.

Lonsdale, D. (1999). *Principles of tree hazard assessment and management* (Seventh ed.). Stroud Green: Arboricultural Association.

Mattheck, C., & Breloer, H. (1994). *Field guide for visual tree assessment.*

National Tree Safety Group. (2024). *Common sense risk management of trees: guidance on trees and public safety in the UK for owners, managers and advisors* (2 ed.). Forest Research and The Arboricultural Association.

Nicolotti, G., Gonthier, P., Guglielmo, F., & Garbelotto, M. M. (2009). A Biomolecular Method for the Detection of Wood Decay Fungi: A Focus on Tree Stability Assessment . *Arboriculture & Urban Forestry*.

Schwarze, F. W. (2007). Wood decay under the microscope. *Fungal Biology Reviews*, 1-38.

The British Standards Institute. (2014). *British Standard BS 8545 'Trees: from nursery to independence in the landscape- Recommendations'*. BSI Standards Limited.

GLOSSARY OF ARBORICULTURAL TERMS

Brown rot: A mode of decay that primarily decomposes cellulose and hemicellulose, leaving the lignin largely intact. Wood shrinks notably in volume and can be liable to cracking and brittle fracture across the wood grain (Humphries & Wright, 2021);
Cellulose: A carbohydrate consisting of glucose molecules joined end-to-end, so as to form long filaments; a principal constituent of plant cell walls (Lonsdale, 1999);
Hemicellulose: A diverse range of carbohydrates, each consisting of linked sugar molecules of more than one type (Lonsdale, 1999);
Lignin: The hard, cement-like constituent of wood cells. Deposition of lignin within the matrix of cellulose microfibrils in the cell wall if termed **'lignification'** (Lonsdale, 1999);
Soft rot: A mode of decay whereby wood initially becomes brittle through cellulose degradation, but some lignin can also be broken down. Wood volume generally remains unchanged in the early stages often leading to brittle fracture (Humphries & Wright, 2021);
White rot: The mode of decay involves the degradation of all three principal constituents (cellulose, hemicellulose and lignin) and can separated into two principal types: ***Simultaneous white rot:*** all constituents are decayed at similar rates; leaves behind wood that is soft but brittle in structure; or ***Selective delignification:*** lignin and hemicellulose are broken down, leaving cellulose largely unaffected; wood becomes soft, lighter in weight and colour and often stringier.

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Institute of Chartered Foresters

Arboricultural ASSOCIATION
Professional Member

APPENDIX 1:
DETAILED ASSESSMENTS

Brambles End
30 Blakes Farm Road
Southwater
West Sussex
RH13 9GJ

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Company Registration No.
(England & Wales): 13900533

English Oak (T45)



Tree Details and Location



Likelihood of Occupation



Consequences



Likelihood of Failure

VITALITY	V	crown density woundwood response growth	C
ANATOMY	A	wood properties architecture H/D ratio	C
LOAD	L	exposure changes to the tree changes around tree	A
IDENTITY	I	species profile age of wounds CODIT	R
DEFECT	D	soundwood decay - extend feature or fault	R

Notes

Summary

Highest Risk	**Not Acceptable**
Risk reduction	Fell and replace.
Tree Management	N/A
Review Year	
Date Assessed	2024-10-09 09:59 am
Assessed By	Matthew Jones
Phone Number	07780336000
Email	Info@mdjac.co.uk

Risk



Species	Height (m)	Stem Ø (cm)	Crown Ø (m)
English Oak Quercus robur	19	110	6

Huntley Mews
Southwater
RH13 9FD

Risk Inputs



C
Property



C
1
Very High

Good vitality in most of canopy.
2no. dying branches....

Prominent response wood at base.
Flexure wood development. ...

Recently completed (< 5yrs) residential development on all sides.
Likely subjected to root disturbance/damage.

Resistance drill confirms extensive basal decay.

Colonised by Ganoderma resinacium.
Aggressive wood decay species....

F
3
Moderate

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APPENDIX 2: RESISTANCE DRILLING DATA

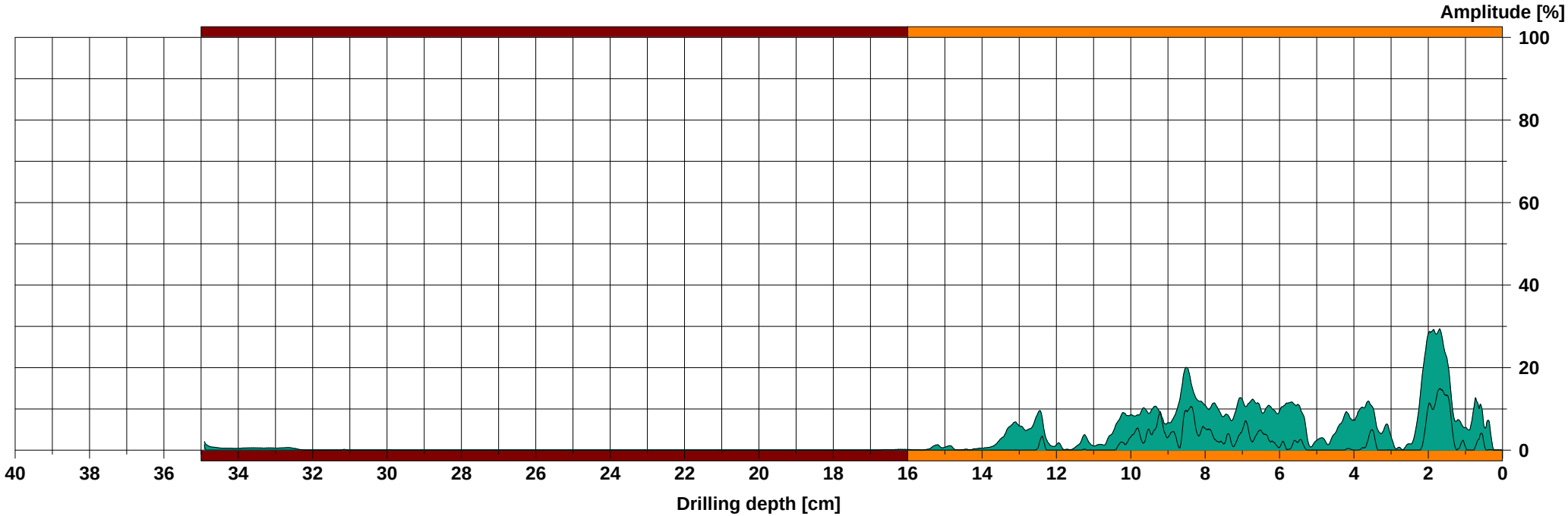
Brambles End
30 Blakes Farm Road
Southwater
West Sussex
RH13 9GJ

www.mdjac.co.uk | info@mdjac.co.uk

Company Registration No.
(England & Wales): 13900533

Measuring / object data

Measurement no.:	3	**Speed :**	2500 r/min	**Diameter:**	205,00 cm
ID number :	N 200	**Needle state:**	---	**Level :**	200mm
Drilling depth :	34,91 cm	**Tilt :**	---	**Direction:**	North-South
Date :	09.10.2024	**Offset :**	141 / 476	**Species :**	English oak
Time :	09:27:11	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	150 cm/min			**Name :**	T45



Assessment

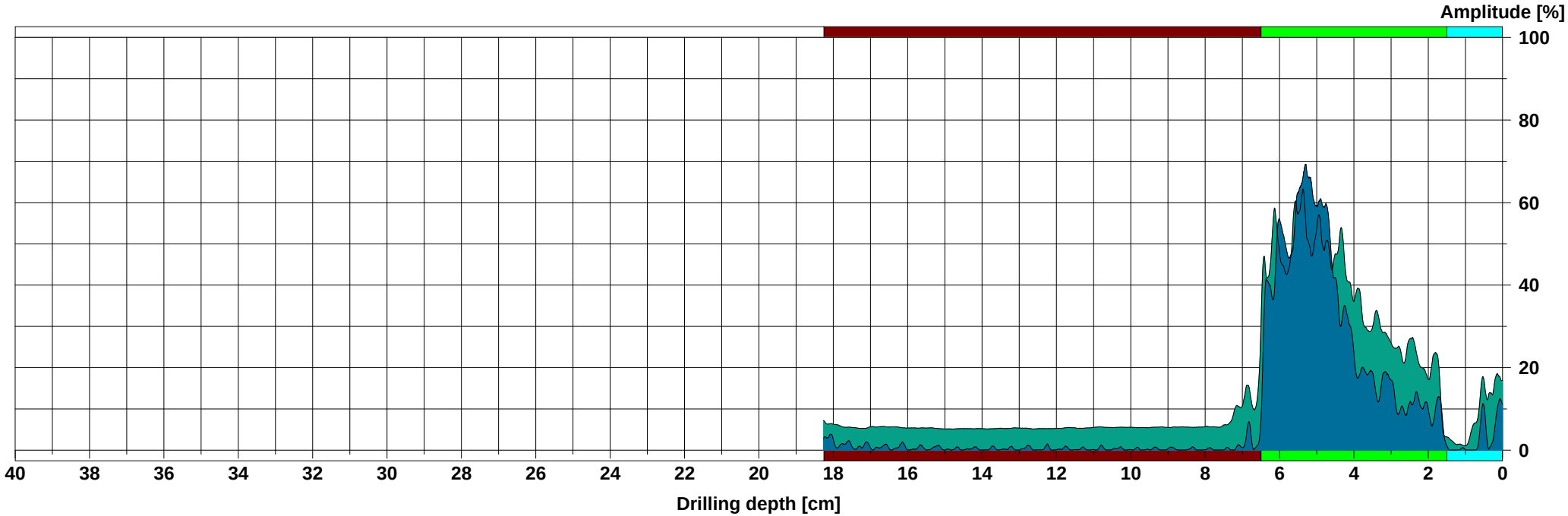
From 0,00 cm **to** 16,00 cm : Degraded wood
From 16,00 cm **to** 35,00 cm : Ext.Decay/Hollow

Comment

Heavily degraded wood throughout profile.

Measuring / object data

Measurement no.:	4	**Speed :**	2500 r/min	**Diameter:**	190,00 cm
ID number :	N 500	**Needle state:**	---	**Level :**	500mm
Drilling depth :	18,26 cm	**Tilt :**	---	**Direction:**	North-South
Date :	09.10.2024	**Offset :**	138 / 624	**Species :**	English oak
Time :	09:29:34	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	150 cm/min			**Name :**	T45



Assessment

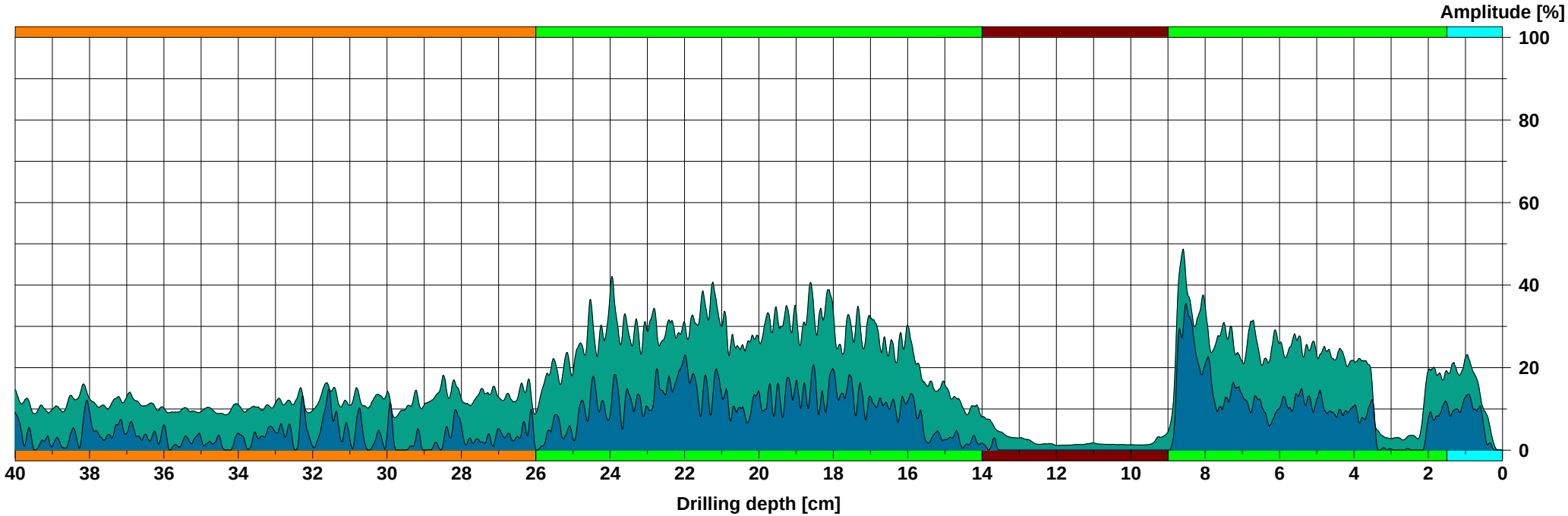
From	0,00 cm	**to**	1,50 cm	: Bark
From	1,50 cm	**to**	6,50 cm	: Sound wood
From	6,50 cm	**to**	18,25 cm	: Ext.Decay/Hollow
From	18,25 cm	**to**	40,00 cm	: Auto Needle Retrat

Comment

Extensive decay at 6.5cm. Automatic needle retraction at 18.25cm.

Measuring / object data

Measurement no.:	5	**Speed :**	2500 r/min	**Diameter:**	130,00 cm
ID number :	N 1000	**Needle state:**	---	**Level :**	1000mm
Drilling depth :	40,00 cm	**Tilt :**	---	**Direction:**	North-South
Date :	09.10.2024	**Offset :**	131 / 339	**Species :**	English oak
Time :	09:30:18	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	150 cm/min			**Name :**	T45



Assessment

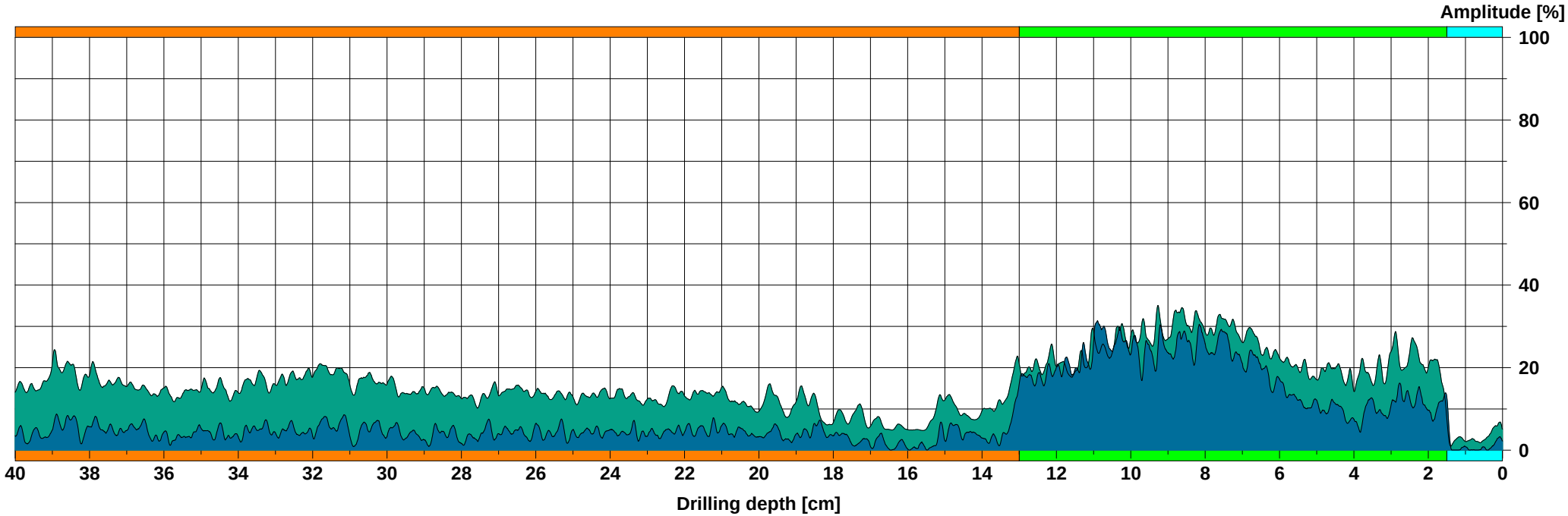
From	0,00 cm	**to**	1,50 cm	: Bark
From	1,50 cm	**to**	9,00 cm	: Sound wood
From	9,00 cm	**to**	14,00 cm	: Ext.Decay/Hollow
From	14,00 cm	**to**	26,00 cm	: Sound wood
From	26,00 cm	**to**	40,00 cm	: Degraded wood

Comment

Varied wood desnity throughout profile.
Consistent with tapered area of decay.

Measuring / object data

Measurement no.:	7	**Speed :**	2500 r/min	**Diameter:**	110,00 cm
ID number :	N 1500	**Needle state:**	---	**Level :**	1500mm
Drilling depth :	40,00 cm	**Tilt :**	---	**Direction:**	North-South
Date :	09.10.2024	**Offset :**	108 / 487	**Species :**	English oak
Time :	09:33:00	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

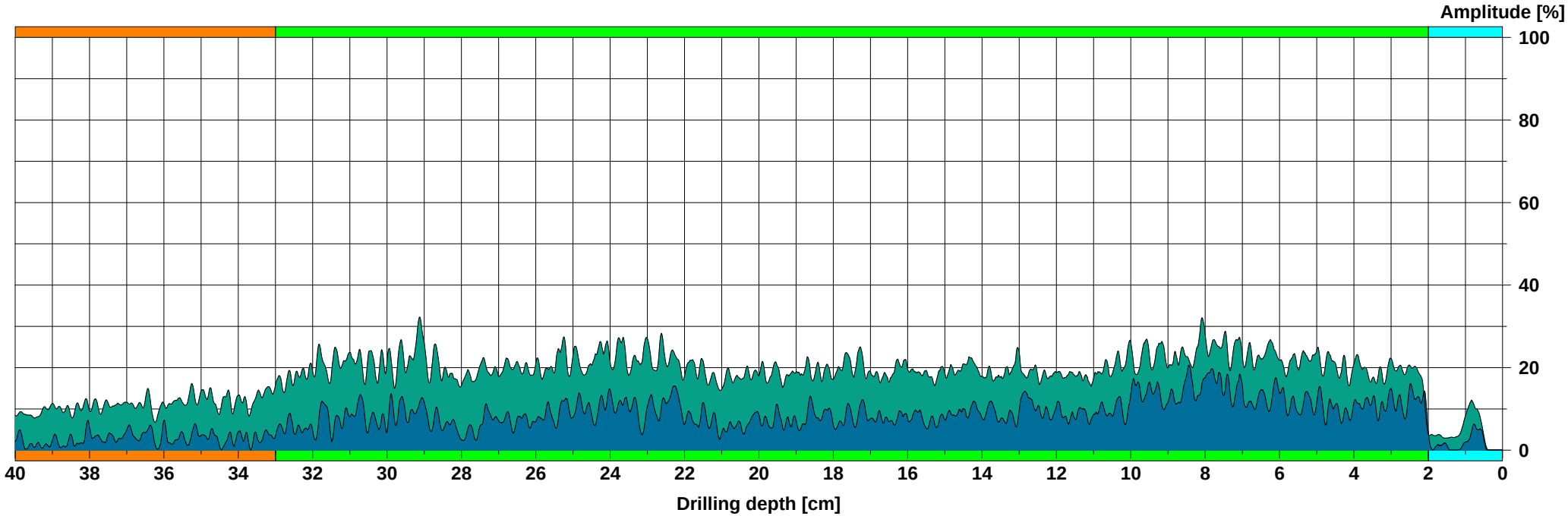
From	0,00 cm	**to**	1,50 cm	:	Bark
From	1,50 cm	**to**	13,00 cm	:	Sound wood
From	13,00 cm	**to**	40,00 cm	:	Degraded wood

Comment

Sound wood to 13cm. Degredation thereafter.

Measuring / object data

Measurement no.:	8	**Speed :**	2500 r/min	**Diameter:**	190,00 cm
ID number :	E 500	**Needle state:**	---	**Level :**	500mm
Drilling depth :	40,00 cm	**Tilt :**	---	**Direction:**	East-West
Date :	09.10.2024	**Offset :**	98 / 327	**Species :**	Engliish oak
Time :	09:35:04	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

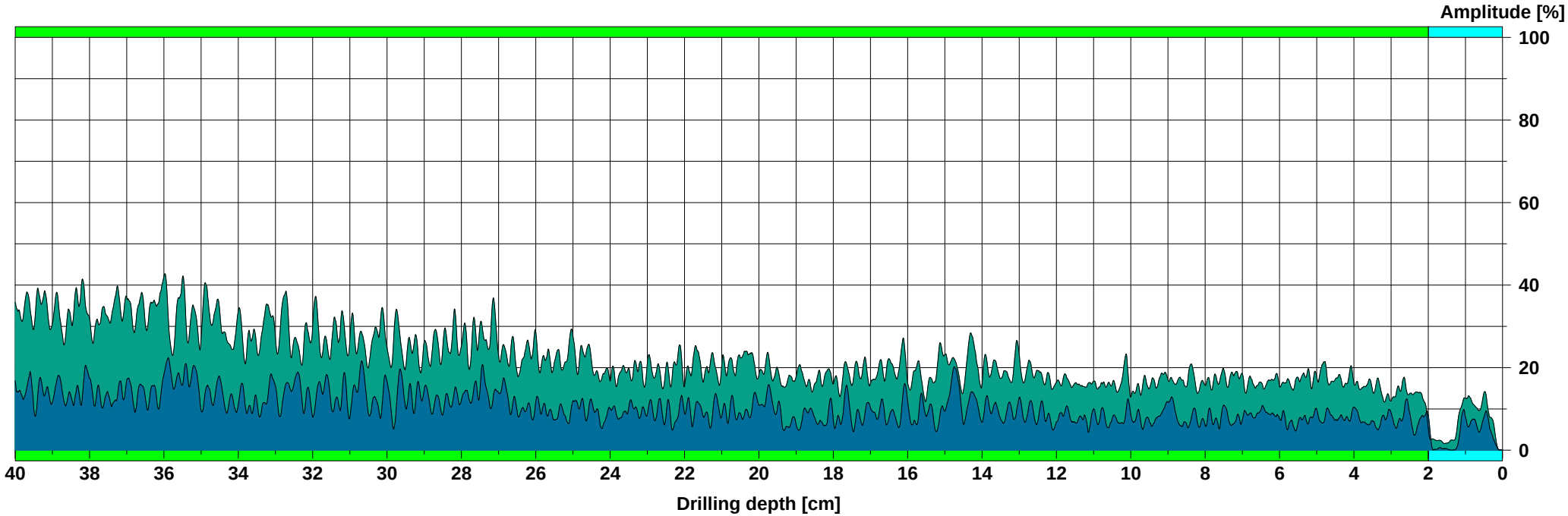
From	0,00 cm	**to**	2,00 cm	**:** Bark
From	2,00 cm	**to**	33,00 cm	**:** Sound wood
From	33,00 cm	**to**	40,00 cm	**:** Degraded wood

Comment

Located between buttress roots. Broadly sound in appearance, but may be of lower density than normal. Decay evident towards end of profile.

Measuring / object data

Measurement no.:	9	**Speed** :	2500 r/min	**Diameter:**	130,00 cm
ID number :	E 1000	**Needle state:**	---	**Level** :	1000mm
Drilling depth :	40,01 cm	**Tilt** :	---	**Direction:**	East-West
Date :	09.10.2024	**Offset** :	99 / 453	**Species** :	English oak
Time :	09:35:57	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

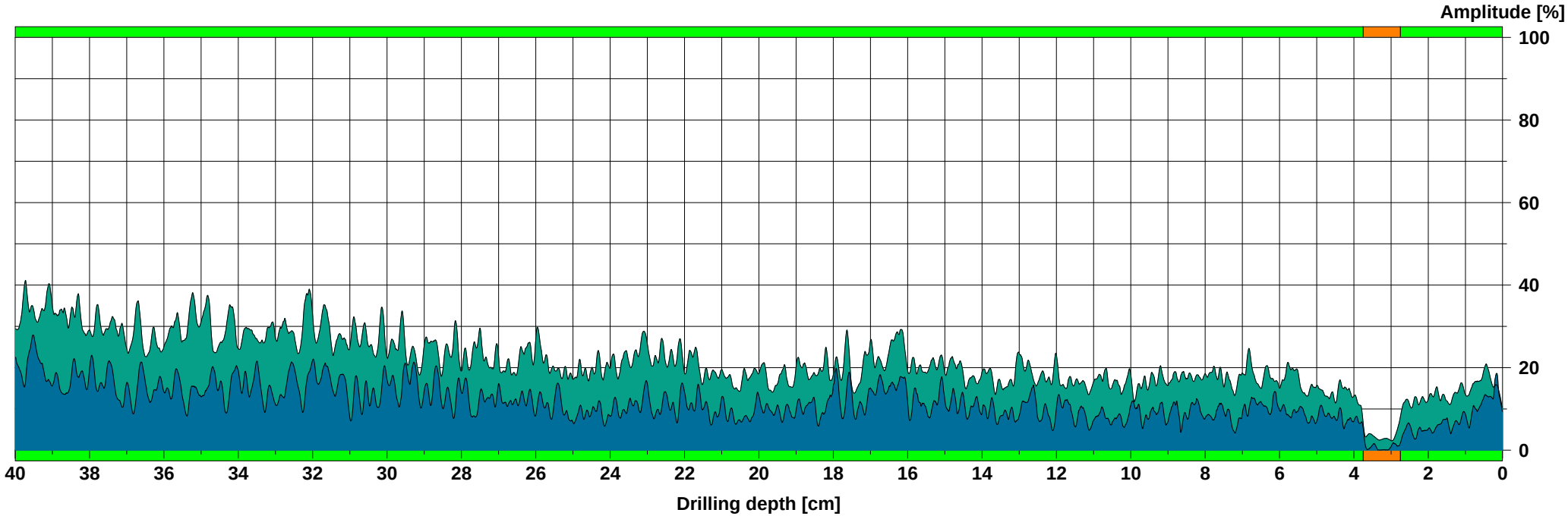
From 0,00 cm **to** 2,00 cm : Bark
From 2,00 cm **to** 40,00 cm : Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	10	**Speed :**	2500 r/min	**Diameter:**	110,00 cm
ID number :	E 1500	**Needle state:**	---	**Level :**	1500mm
Drilling depth :	39,99 cm	**Tilt :**	---	**Direction:**	East-West
Date :	09.10.2024	**Offset :**	97 / 432	**Species :**	English oak
Time :	09:37:03	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

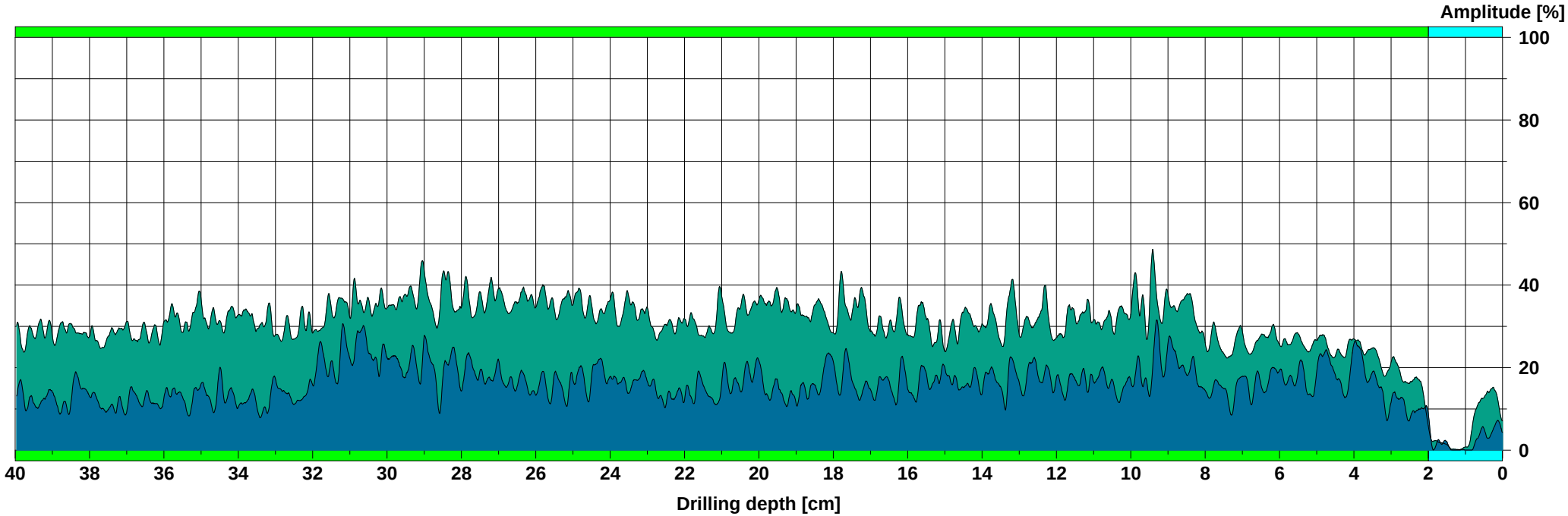
From	0,00 cm	**to**	2,75 cm	: Sound wood
From	2,75 cm	**to**	3,75 cm	: Degraded wood
From	3,75 cm	**to**	40,00 cm	: Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	12	**Speed :**	2500 r/min	**Diameter:**	205,00 cm
ID number :	S 200	**Needle state:**	---	**Level :**	200
Drilling depth :	39,96 cm	**Tilt :**	---	**Direction:**	South-North
Date :	09.10.2024	**Offset :**	108 / 624	**Species :**	English oak
Time :	09:41:01	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

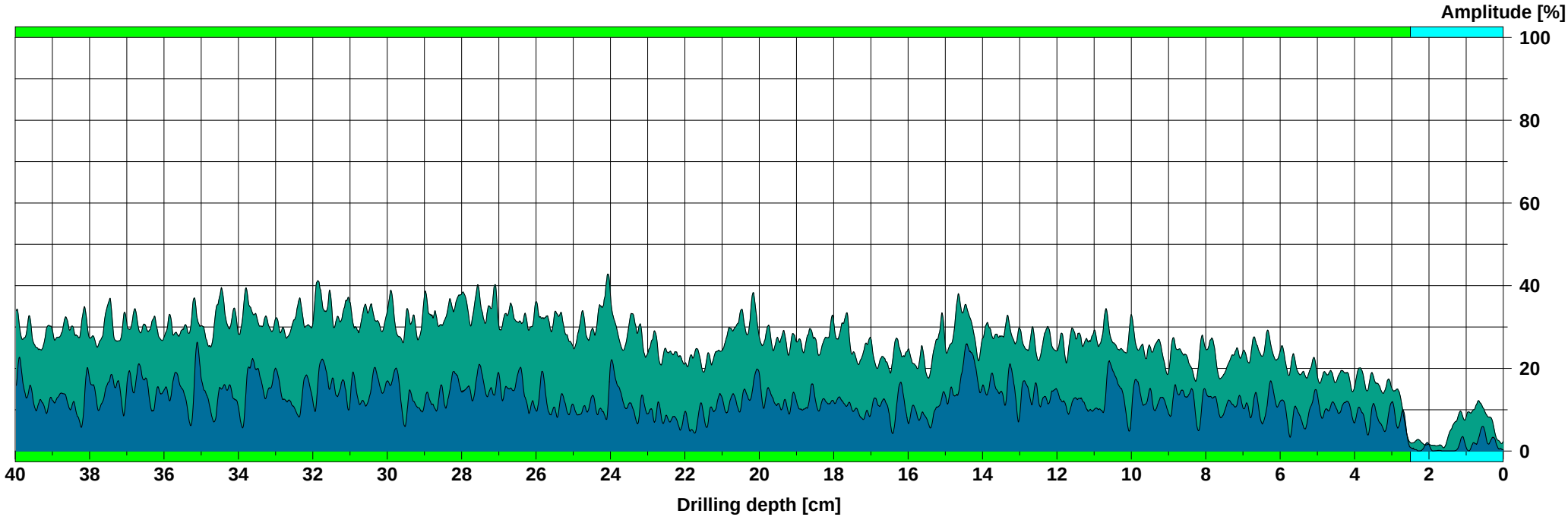
From 0,00 cm **to** 2,00 cm : Bark
From 2,00 cm **to** 40,00 cm : Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	13	**Speed** :	2500 r/min	**Diameter:**	190,00 cm
ID number :	S 500	**Needle state:**	---	**Level** :	500mm
Drilling depth :	39,97 cm	**Tilt** :	---	**Direction:**	South-North
Date :	09.10.2024	**Offset** :	108 / 648	**Species** :	English oak
Time :	09:42:03	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

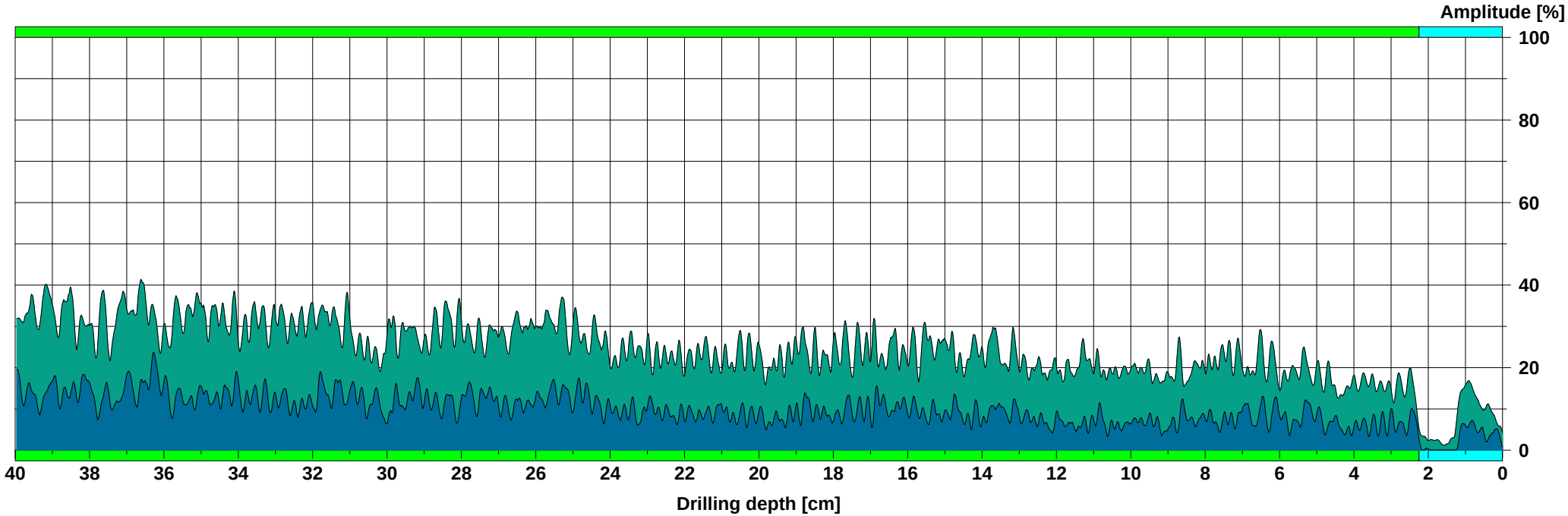
From 0,00 cm **to** 2,50 cm : Bark
From 2,50 cm **to** 40,00 cm : Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	14	**Speed** :	2500 r/min	**Diameter:**	130,00 cm
ID number :	S 1000	**Needle state:**	---	**Level** :	1000
Drilling depth :	39,96 cm	**Tilt** :	---	**Direction:**	South-North
Date :	09.10.2024	**Offset** :	97 / 430	**Species** :	English oak
Time :	09:42:59	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

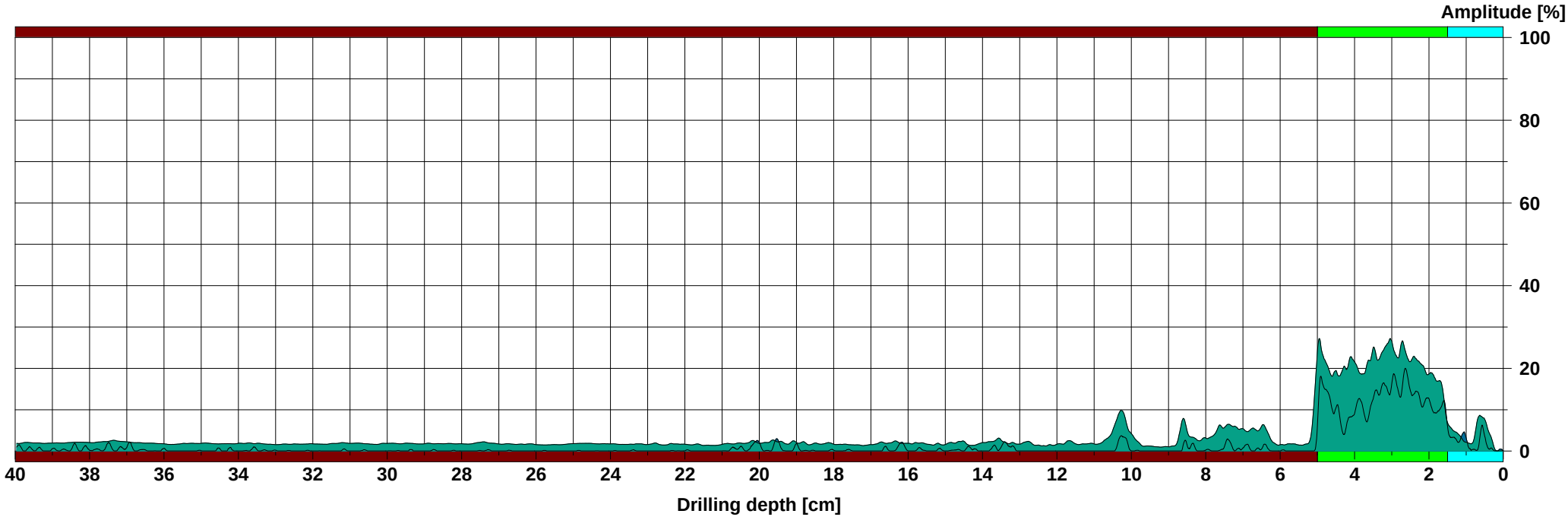
From 0,00 cm **to** 2,25 cm : Bark
From 2,25 cm **to** 40,00 cm : Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	16	**Speed :**	2500 r/min	**Diameter:**	205,00 cm
ID number :	W 200	**Needle state:**	---	**Level :**	200
Drilling depth :	39,96 cm	**Tilt :**	---	**Direction:**	West-East
Date :	09.10.2024	**Offset :**	92 / 344	**Species :**	English oak
Time :	09:45:36	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

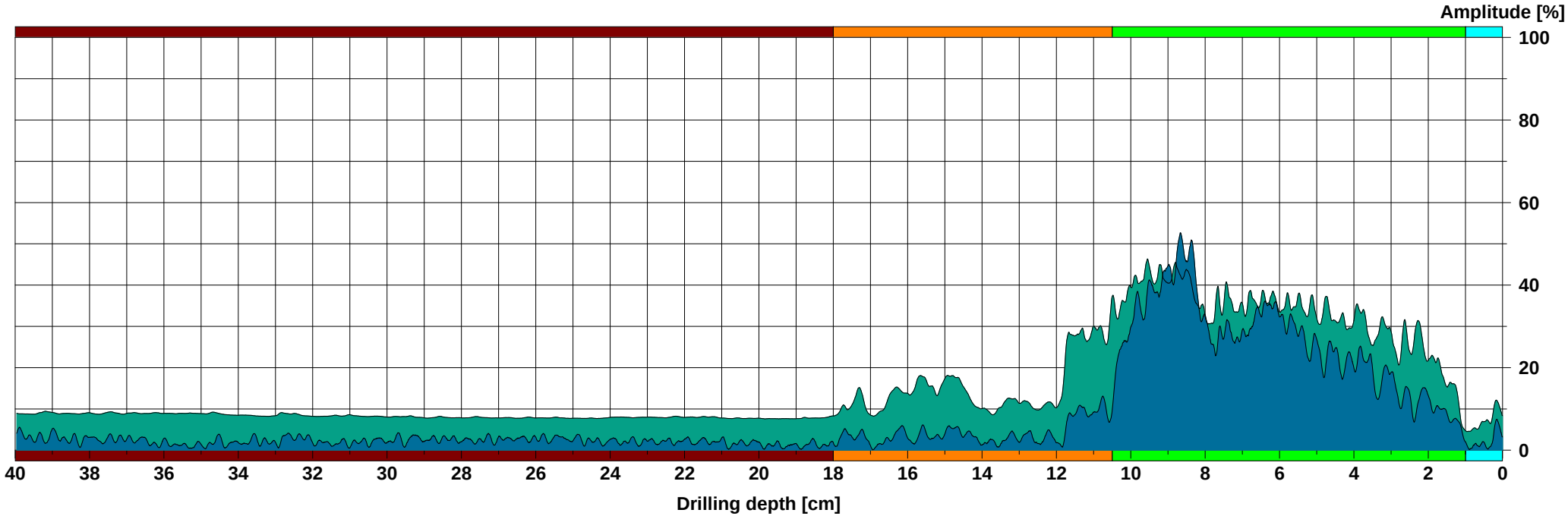
From	0,00 cm	**to**	1,50 cm	: Bark
From	1,50 cm	**to**	5,00 cm	: Sound wood
From	5,00 cm	**to**	40,00 cm	: Ext.Decay/Hollow

Comment

Extensive degredation from 5cm.

Measuring / object data

Measurement no.:	17	**Speed :**	2500 r/min	**Diameter:**	190,00 cm
ID number :	W 500	**Needle state:**	---	**Level :**	500mm
Drilling depth :	39,96 cm	**Tilt :**	---	**Direction:**	West-East
Date :	09.10.2024	**Offset :**	92 / 348	**Species :**	English oak
Time :	09:47:04	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

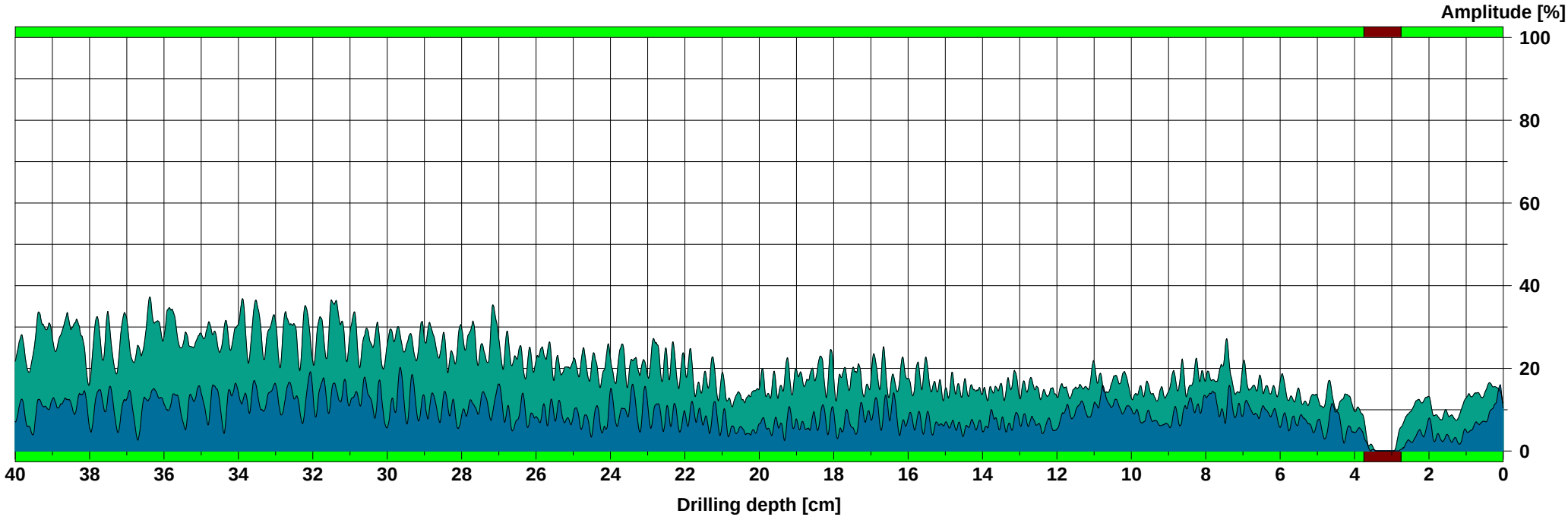
From	0,00 cm	**to**	1,00 cm	: Bark
From	1,00 cm	**to**	10,50 cm	: Sound wood
From	10,50 cm	**to**	18,00 cm	: Degraded wood
From	18,00 cm	**to**	40,00 cm	: Ext.Decay/Hollow

Comment

Decay from 10cm, becoming extensive at 18cm.

Measuring / object data

Measurement no.:	18	**Speed** :	2500 r/min	**Diameter:**	130,00 cm
ID number :	W 1000	**Needle state:**	---	**Level** :	1000mm
Drilling depth :	40,00 cm	**Tilt** :	---	**Direction:**	West-East
Date :	09.10.2024	**Offset** :	101 / 634	**Species** :	English oak
Time :	09:48:09	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

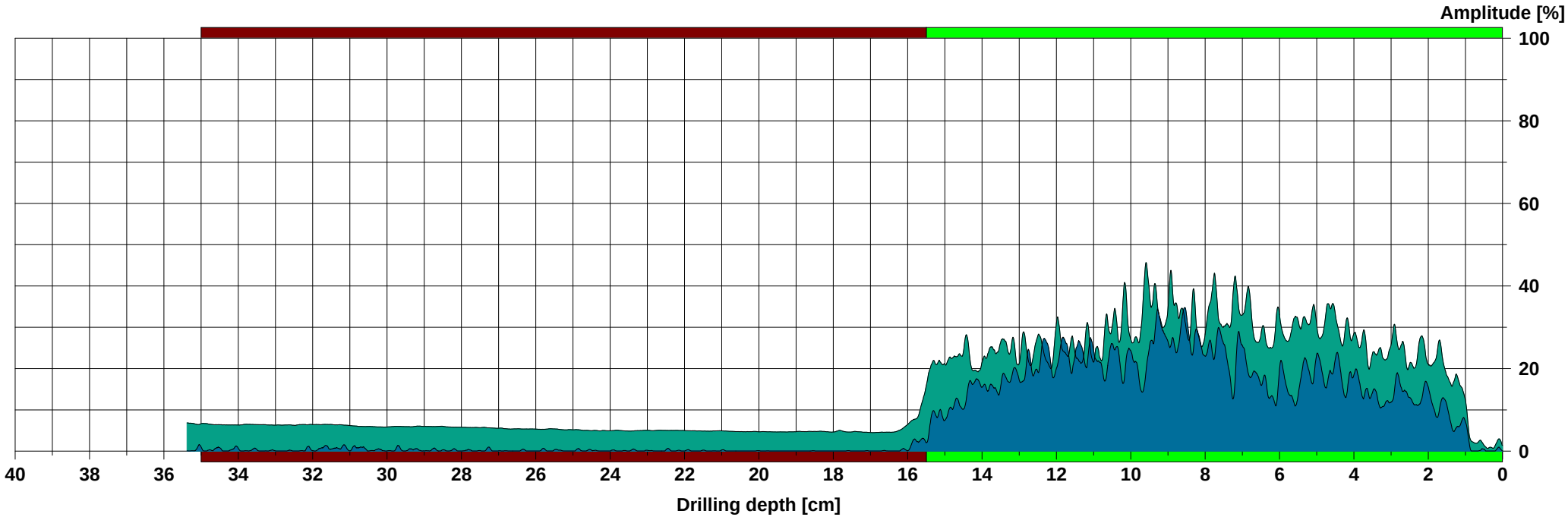
From	0,00 cm	**to**	2,75 cm	: Sound wood
From	2,75 cm	**to**	3,75 cm	: Ext.Decay/Hollow
From	3,75 cm	**to**	40,00 cm	: Sound wood

Comment

Broadly sound through profile.

Measuring / object data

Measurement no.:	21	**Speed** :	2500 r/min	**Diameter:**	
ID number :	N 300	**Needle state:**	---	**Level** :	300mm
Drilling depth :	35,38 cm	**Tilt** :	---	**Direction:**	Diagional 45 degrees
Date :	09.10.2024	**Offset** :	82 / 652	**Species** :	English oak
Time :	09:52:40	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

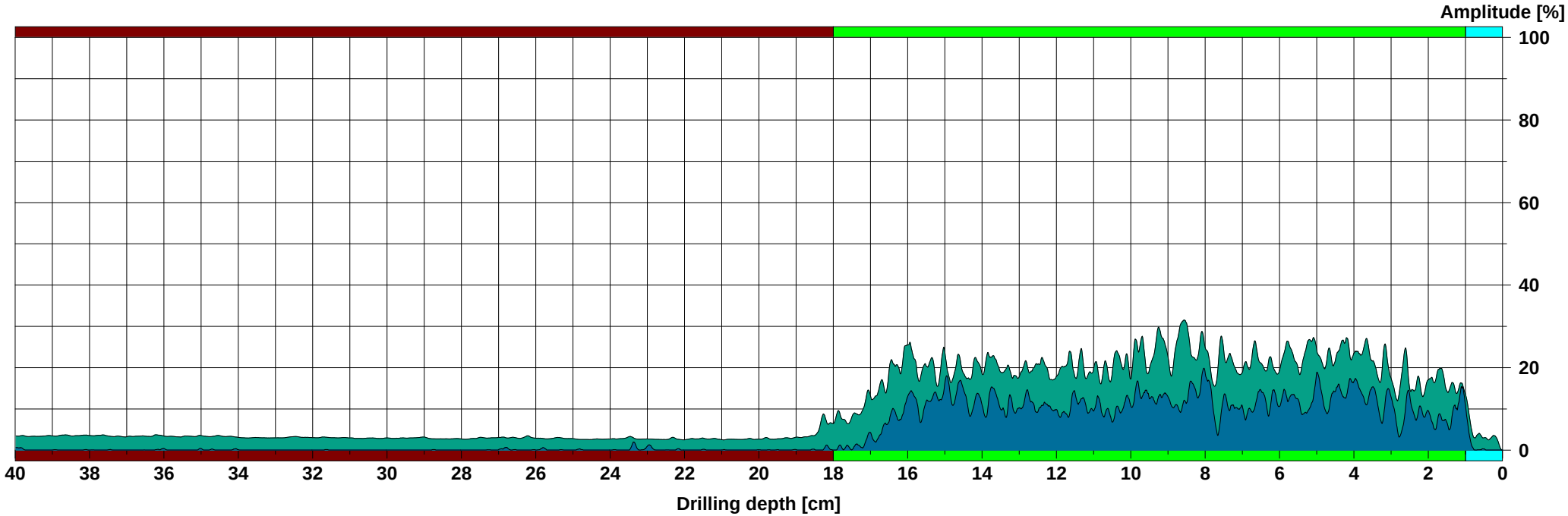
From 0,00 cm **to** 15,50 cm : Sound wood
From 15,50 cm **to** 35,00 cm : Ext.Decay/Hollow

Comment

Buttress root on north side. Extensive decay.

Measuring / object data

Measurement no.:	22	**Speed :**	2500 r/min	**Diameter:**	
ID number :	NE 300	**Needle state:**	---	**Level :**	300
Drilling depth :	39,98 cm	**Tilt :**	---	**Direction:**	Diaginal 45 degrees
Date :	09.10.2024	**Offset :**	82 / 386	**Species :**	English oak
Time :	09:53:47	**Avg. curve :**	off / off	**Location :**	Broadacres Estate
Feed :	100 cm/min			**Name :**	T45



Assessment

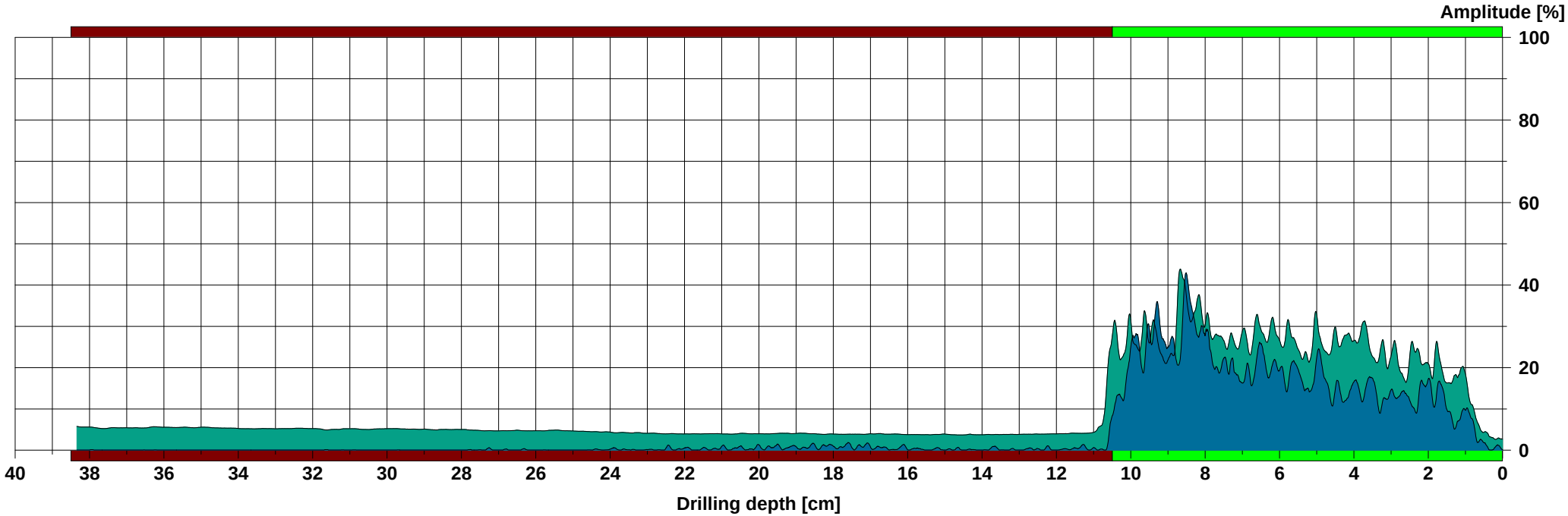
From	0,00 cm	**to**	1,00 cm	: Bark
From	1,00 cm	**to**	18,00 cm	: Sound wood
From	18,00 cm	**to**	40,00 cm	: Ext.Decay/Hollow

Comment

Buttress root on north-east side. Extensive decay.

Measuring / object data

Measurement no.:	20	**Speed** :	2500 r/min	**Diameter:**	
ID number :	NW 300	**Needle state:**	---	**Level** :	300mm
Drilling depth :	38,34 cm	**Tilt** :	---	**Direction:**	Diagonal 45 degrees
Date :	09.10.2024	**Offset** :	81 / 586	**Species** :	English oak
Time :	09:51:15	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

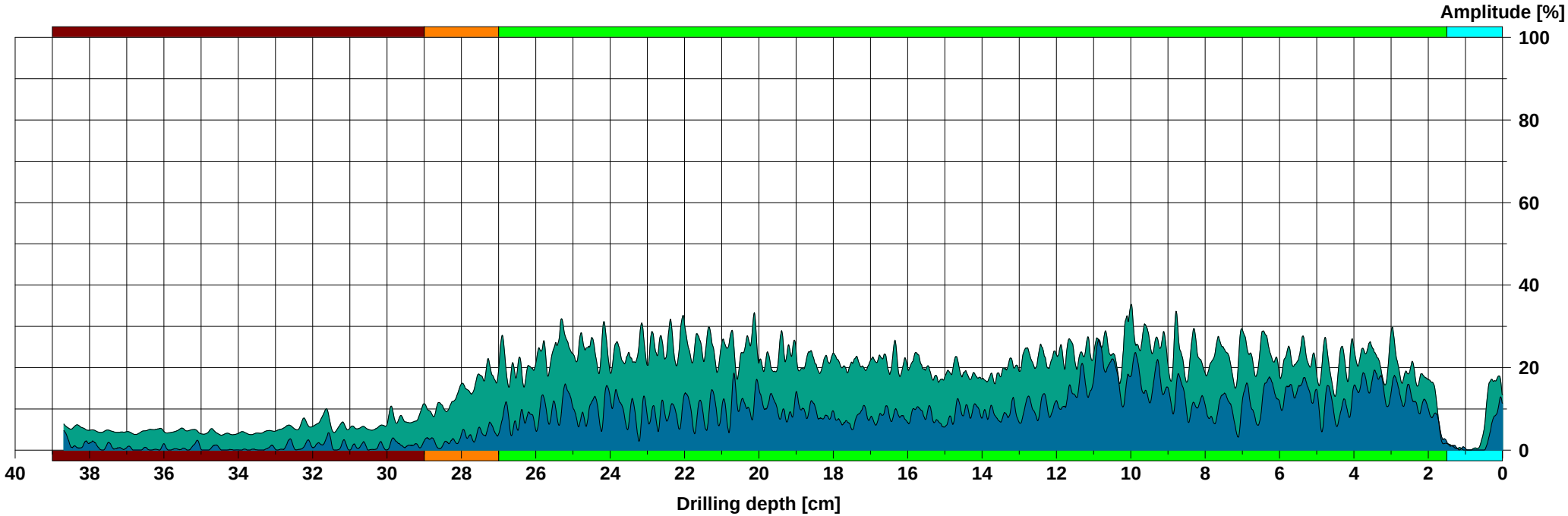
From 0,00 cm **to** 10,50 cm : Sound wood
From 10,50 cm **to** 38,50 cm : Ext.Decay/Hollow

Comment

Buttress root on north-west side. Extensive decay.

Measuring / object data

Measurement no.:	23	**Speed** :	2500 r/min	**Diameter:**	
ID number :	SE 300	**Needle state:**	---	**Level** :	300
Drilling depth :	38,69 cm	**Tilt** :	---	**Direction:**	Diagonal 45 degrees
Date :	09.10.2024	**Offset** :	81 / 644	**Species** :	English oak
Time :	09:54:58	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

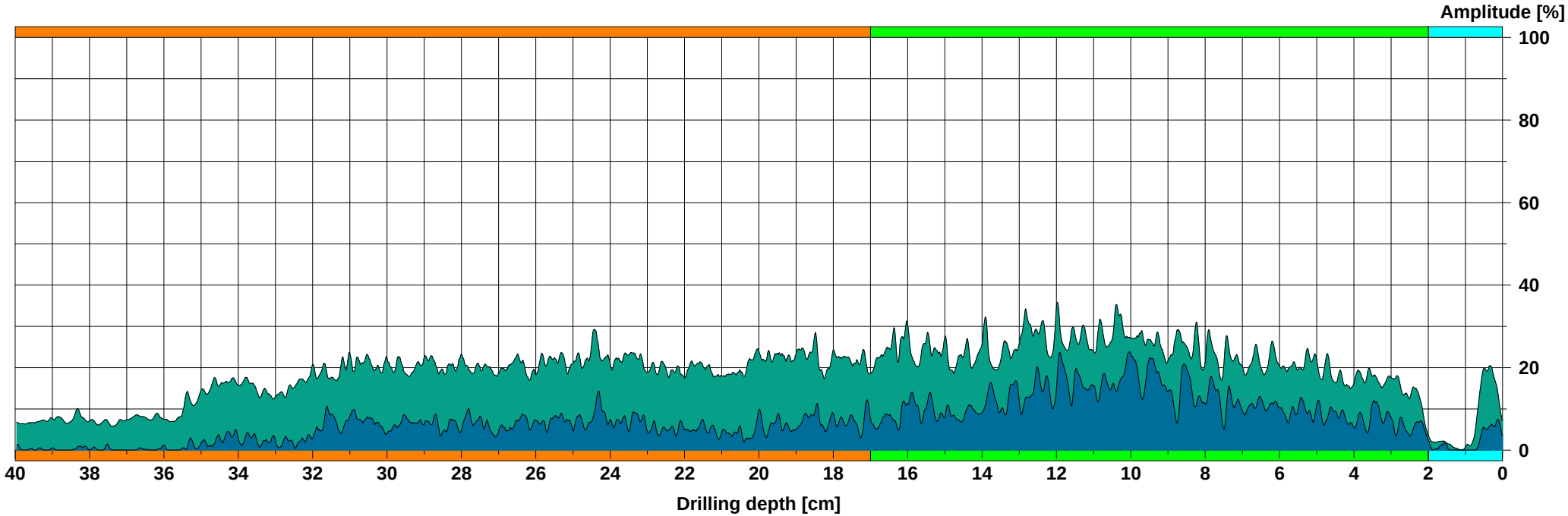
From	0,00 cm	**to**	1,50 cm	: Bark
From	1,50 cm	**to**	27,00 cm	: Sound wood
From	27,00 cm	**to**	29,00 cm	: Degraded wood
From	29,00 cm	**to**	39,00 cm	: Ext.Decay/Hollow

Comment

Buttress root on south-east side. Broadly sound to 27cm. Decayed, extensively, thereafter.

Measuring / object data

Measurement no.:	24	**Speed** :	2500 r/min	**Diameter:**	
ID number :	S 300	**Needle state:**	---	**Level** :	300
Drilling depth :	39,96 cm	**Tilt** :	---	**Direction:**	Diagonal 45 degrees
Date :	09.10.2024	**Offset** :	93 / 684	**Species** :	English oak
Time :	09:56:02	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

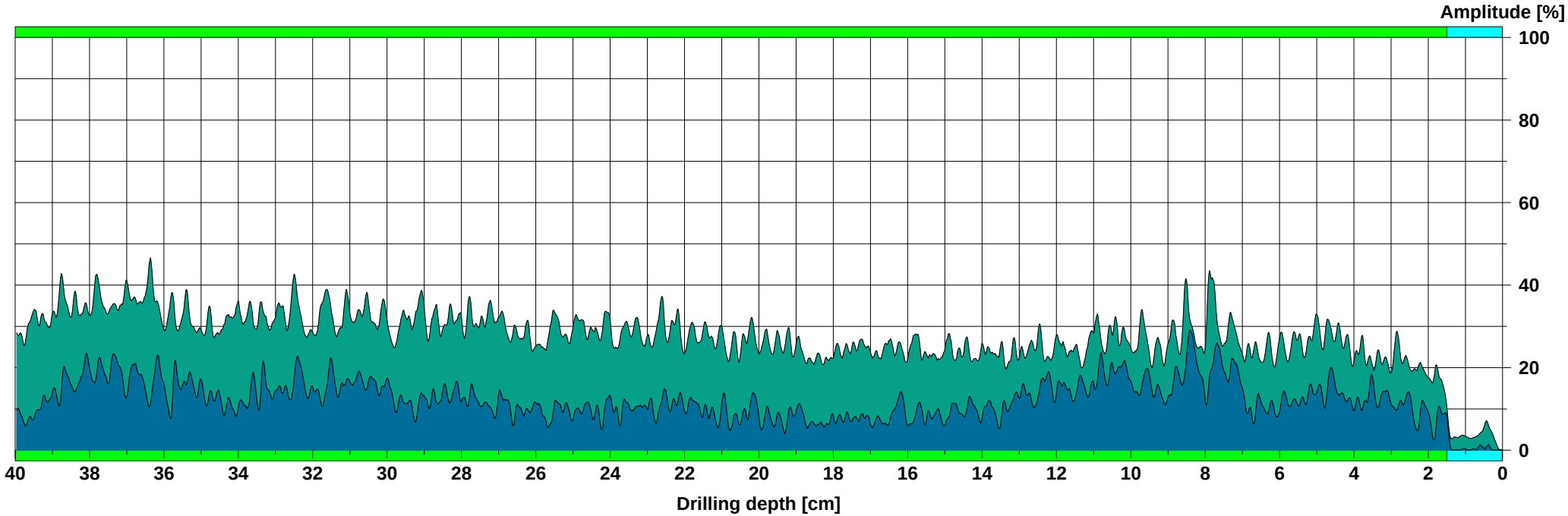
From	0,00 cm	**to**	2,00 cm	:	Bark
From	2,00 cm	**to**	17,00 cm	:	Sound wood
From	17,00 cm	**to**	40,00 cm	:	Degraded wood

Comment

Broadly sound to 17cm, with altered/dysfunctional wood thereafter.

Measuring / object data

Measurement no.:	25	**Speed** :	2500 r/min	**Diameter:**	
ID number :	SW 300	**Needle state:**	---	**Level** :	300mm
Drilling depth :	39,96 cm	**Tilt** :	---	**Direction:**	Diagonal 45 degrees
Date :	09.10.2024	**Offset** :	81 / 368	**Species** :	English oak
Time :	09:57:13	**Avg. curve** :	off / off	**Location** :	Broadacres Estate
Feed :	100 cm/min			**Name** :	T45



Assessment

From	0,00 cm	**to**	1,50 cm :	Bark
From	1,50 cm	**to**	40,00 cm :	Sound wood

Comment

Broadly sound.

MDJ ARBORICULTURAL CONSULTANCY LIMITED

Institute of Chartered Foresters

Arboricultural ASSOCIATION
Professional Member

APPENDIX 3:
VALID TREE RISK-BENEFIT MANAGEMENT & ASSESSMENT METHOD

Brambles End
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Company Registration No.
(England & Wales): 13900533

Tree Risk-Benefit Validator







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Policy & Plan	1
Passive Assessment	2
Active Assessment	3
What is VALID?	4

1 Establishing the context

Trees give us many benefits that we need

1 The more obvious benefits that trees give us are visual beauty in the landscape, wood, and the various crops they produce. Further values include wildlife habitat, pollution filtering, and reducing the harmful effects of both weather and climate change. Trees also have important social value as part of our culture, history, or because they commemorate an important event. As if all those benefits weren't enough, there's an ever-increasing body of scientific evidence shows trees are essential for our physical health, mental wellbeing, and quality of life.

The overall risk to us from trees and branches falling is extremely low

2 Compared to other everyday risks we readily accept, the overall risk to us from branches or trees falling is extremely low. Our annual risk of being killed or seriously injured is less than one in a million. That's so low, we're at greater risk driving about a 400km/250mi round trip to visit friends for a weekend than from branches or trees falling over an entire year. Given the number of trees we live with, and how many of us pass them daily, being killed or injured by a tree is a rare event; one that usually happens during severe weather.

We can't be an insurer of nature or eliminate the risk from trees

3 Of course, we can't be an insurer of nature, and trees are living structures that sometimes shed branches or fall over. But this usually happens because of severe weather. Or because they have an obvious risk feature. Since we need the many benefits from trees, we have to accept we can't remove all of the risk. Trees also drop leaves, bark, cones, nuts, and fruits, but the risk from this natural debris falling is so low it's Acceptable.

1.1 Duty of care

Reasonable
Proportionate
Reasonably practicable

4 We have a duty of care to manage the risk from our trees. The duty also says we should be reasonable, proportionate, and reasonably practicable when managing the risk. That means there's a balance we need to strike between the many benefits trees provide, the risk, and the costs of managing the risk. By taking a balanced approach, we don't waste resources by reducing risk - and losing benefits - when the risk is already Acceptable or Tolerable.

We all have a responsibility to make reasonable decisions

5 We're all expected to act reasonably and responsibly. When severe weather is forecast, we can manage our exposure to the higher risk from tree failure by not going out. If we go out, we're choosing to accept some of the risk.

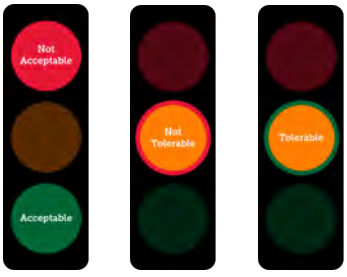
1.2 Risk tolerance

What's an Acceptable or Tolerable level of risk from our trees?

6 The Tolerability of Risk Framework (ToR) is an internationally recognised approach to making risk management decisions. It's used by duty holders where they manage a risk that's imposed on the public. ToR defines Broadly Acceptable and Unacceptable levels of risk. Between them is a region where the risk is Tolerable if it's 'as low as reasonably practicable' (ALARP). Put simply, ALARP means the risk is Tolerable if the costs of the risk reduction are much greater than the value of the risk reduction.

1.3 Risk-benefit management plan & risk ratings

Risk ratings are as easy to understand as traffic lights



7 VALID has applied ToR and ISO 31000 - Risk Management to tree risk-benefit management and assessment, which we've adopted. We're going to manage the risk from our trees with **Passive Assessment** in all zones of use, and **Active Assessment** in zones of high confluence (high-use + large trees). We have four easy-to-understand traffic light coloured risk ratings.

Red	**Not Acceptable** risks will be reduced to an Acceptable level
Amber	**Not Tolerable** risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks
Amber	**Tolerable** risks will not be reduced, but may require an increased frequency of assessment than green Acceptable risks
Green	**Acceptable** risks will not be reduced

2 When might a tree be dangerous?

Trees with the highest risk are the easiest to spot

Be watchful after storms

8 When a tree has a risk that's not be Acceptable or Tolerable it'll usually have an Obvious Tree Risk Feature you can't help but notice. Passive Assessment is simply picking up on these features as you go about your day-to-day routine. If you see anything like these features, get in touch with us.

2.1 Root failure

Storms can break tree roots without blowing them over

Signs to look out for are

Change in angle of the trunk
Large cracks in the soil
Hump in the ground on one side

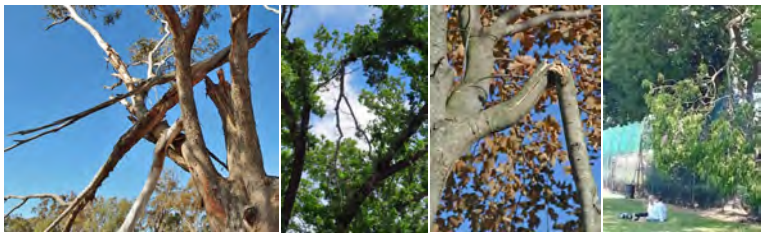
9 

2.2 Hanging branches

Don't forget to look up

Branches can break during storms and still hang on

Sometimes they can get stuck up there for quite a while

10 

2.3 A crack or split into the wood, beyond the bark

When trees bend and twist in storms the wood can split and crack

Vertical cracks in the bark are just the tree growing well there's no need to worry

11 

2.4 Decline & death

To stay healthy and strong trees need 'solar panel' leaves to make food

When trees suffer they often have much less leaf cover and many dead branches

Standing dead trees have great habitat benefits but need checking

12 

2.5 Decay fungi fruiting bodies

To decay fungi these 'fruits' are like apples to an apple tree

Decay fungi and trees mostly live happily together creating essential habitat for wildlife

Fungi can sometimes 'eat' too much wood and weaken the tree

13 

2.6 Construction Damage

Tree roots are surprisingly shallow



Trees can't repair wounds
Digging or building near trees makes them very vulnerable to damage

14 

Photographs
Jake Miesbauer, Michael Richardson, Roy Finch, Mark Hartley, Rick Milson, Andrew Benson, David Abrahams
Felicity Cloake & Wilf, David Humphries, Jack Prynn, Moreton Arboretum, Josh Behounek, Jan Allen

3 What is Active Assessment?

Trained assessors looking at trees with three levels of assessment

15 Active Assessment is where we're looking for tree features where the risk might not be Acceptable or Tolerable. It has three levels to it that increase in depth of evaluation from Basic, to Detailed, up to Advanced.

Risk ratings are limited by the level of assessment

16 Risk ratings have limitations that depend on the level of assessment at which they're made. For instance, when we carry out a Basic Assessment, if there are no Obvious Tree Risk Features, then the risk is Acceptable at this level of assessment. A Detailed or Advanced Assessment is an increase in depth of evaluation, which might reveal features that weren't apparent at a Basic level, and could mean a higher risk. However, carrying out higher levels of assessment, with the additional costs, when there are no obvious features to trigger it isn't reasonable, proportionate, or reasonably practicable.

3.1 Basic Assessment

Finding the few trees where the risk might not be Acceptable or Tolerable

17 At a Basic level of assessment, we're looking for trees with obvious features where the risk might not be Acceptable or Tolerable. We're also keeping an eye out for features that might significantly increase the likelihood of failure. We'll evaluate the importance of these features with VALID's Tree Risk App, and carry out a Detailed Assessment when it's necessary. If you raise any alerts from **Passive Assessment**, we'll decide whether the trees need a closer look at this Basic level of assessment. Rarely, we may come across emergency work, and we'll let you know about this as soon as we can.

We'll assess the trees from easily accessible ground

18 We'll assess trees from easily accessible ground, by foot, bike, or in a vehicle with a drive-by, and agree which one with you beforehand.

If we can't get a close enough look at a tree that we need to we'll let you know

19 If there are any trees we need to get a closer look at, but can't because of climbing plants, undergrowth, hedgerows, boundaries, or basal growth, or because the ground is too difficult, we'll let you know.

The trees or what they could fall on and the type of assessment will be recorded

20 We'll record trees or what they could fall on and how we covered the ground. For example, in a park, we'll plot and record individual or groups of trees as having been assessed on foot. Whereas, if there are many trees beside a road, we'll record the road as having been assessed and how we covered it.

No Obvious Tree Risk Features The risk is Acceptable

21 Unless a tree has a feature to trigger carrying out a Detailed Assessment, the risk is Acceptable at this Basic level of assessment.

3.2 Detailed Assessment

We do a Detailed Assessment when a tree needs a closer look

22 We'll carry out a Detailed Assessment out on trees that we've picked up during a Basic Assessment as needing a closer look. Or on trees where we've been asked to carry out a Detailed Assessment.

The risk is assessed with the App

23 The assessment will be done from ground level with VALID's Tree Risk App.

We'll produce a report

24 The App prints an easy to understand one side of paper report, which includes the risk rating, risk review year, any risk reduction work options, and management advice.

3.3 Advanced Assessment

Large and important trees might be worthy of more effort and cost

25 If we need more information about the likelihood of failure, an Advanced Assessment can be carried out. This might be because we have extensive decay with significant strength loss and want to find out whether the tree is strong enough. Or, an aerial inspection to take a closer look at the upper stem and branches. When a tree needs an Advanced Assessment, we'll let you know and go through the options with you. If the costs are substantial, we can help you decide whether the tree has enough value and future benefits to justify the costs. We'll produce a report that'll include the risk rating, risk review year, any risk reduction work options, and management advice.

4 Simpler • Clearer • Smarter

The Strategy at a glance



26 Whether you manage or assess tree risk, we're here to help make your life less complicated and more effective.

From **Strategy** to **App**, we've got all your bases covered with the first complete tree risk-benefit management system. By taking out the *bafflegab* (vague and ambiguous words) and *numberwang* (questionable maths that you can easily get wrong) from tree risk, we've made it:

"*Uncomplicated...intuitive...simpler...clearer...smarter*"

This is what Duty Holders, Arborists, and other staff who we've trained as Basic Validators **are all saying**. These are some words you'll likely use to describe how you feel after you've validated your approach to tree risk.

4.1 Tree risk-benefit management

Reasonable
Proportionate
Reasonably practicable



27 Whether you're a Government Agency, Landowner, or Homeowner you have a duty of care to manage the risk from your trees falling or dropping branches. That duty of care says you should be reasonable, proportionate, and reasonably practicable when managing the risk to an Acceptable or Tolerable level.

VALID's got your back here with our full range of easy to understand and common sense **Tree Risk-Benefit Management Strategies**. As part of our not-for-profit goals, they're released under a creative commons license. That means they're *free* and open to *everyone*. **Validators** can help you customise these strategies. They also have a potted version to help you if you've not yet formally adopted a strategy.

4.2 Tree risk-benefit assessment

VALID has been stress-tested to breaking point



28 Our Tree Risk-Benefit Management Strategies do more than 99% of your assessments for you. When you need to carry out a *Detailed Assessment*, you'll use our super smart and intuitive **Tree Risk App**.

The engine of the App has been built with a Professor of Natural Hazards & Risk Science. The Professor's an internationally distinguished expert in this field. He's test-driven the model to breaking point:

> *"We have stress-tested VALID and didn't find any gross, critical sensitivities. In short, the mathematical basis of your approach is sufficiently robust and dependable for any practical purpose."*
>
> Willy Aspinall
> Cabot Professor in Natural Hazards & Risk Science
> University of Bristol

4.3 Tree risk ratings

Risk ratings are as easy to understand as traffic lights



Yes, it really is that clear and easy to understand. There's no confusion about what vague and ambiguous words or complicated numbers mean. We have four easy-to-understand traffic light coloured risk ratings.

Red	**Not Acceptable** risks will be reduced to an Acceptable level
Amber	**Not Tolerable** risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks
Amber	**Tolerable** risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks
Green	**Acceptable** risks will not be reduced

4.4 Tree risk-benefit management advice & training

Visit our Training page
Or get in touch for help

29 We work with duty holders to help them manage the risk and benefits from their trees. We also **train** Arborists to become **Validators**, or staff who aren't Arborists to be **Basic Validators**.