Tree Surveys

BS5837:2005 – Pre Planning – Mortgage – Risk Management

VISUAL TREE ASSESSMENT AT 1 COLLEGE COTTAGES SLAIDBURN ROAD, NEWTON

Prepared for: Mr D PADLEY
Lancashire County Council
County Hall
Room D1
Preston
PR1 8RE

8th February 2010
Ref:SPH/VTA-01/08.10

Tree Surveys, Unit H, Reading Road, Arborfield, Berkshire, RG2 9HT.
Tel: 0118 9762902

CONTENTS

APPENDIX

Location:	Land adjacent to 1 College Cottages, Slaidburn Road, Newton in Bowland, Clitheroe, BB7 3EB
Client:	Lancashire County Council, c/o Mr D Padley
Report Prepared by:	S. P Holmes, Chartered Arboriculturist, MICFor. M Arbor A. CEnv.

Please note: all abbreviations introduced in brackets are used throughout the report.

Instructions

Issued by – Mr D Padley

Tree Preservation Order Status: unknown.

TERMS OF REFERENCE - To carry out a visual tree inspection (VTA), decay detection at ground level and Risk Assessment upon 1 mature ash tree at the above site.

The principle purpose of this survey is to establish the extent of dysfunction and decay associated with an open stem cavity and basal wound.

Summary

The Picus Tomograms clearly identifies several areas of incipient decay within the main stem at 1 and 1.5m above ground level (AGL). The Resistograph testing clearly identifies a significant cross section of the stem below the cavity with advanced decay. The external physiological and structural characteristics are satisfactory with normal signs of vitality. Remedial pruning and re-inspection is advised.

Survey date:	8th February 2010
Surveyor:	Simon Holmes
Assistant:	Tim Fairless

Ref: SPH/VTA-01/08.02

Background Information

1.1 We are unaware of any background information relating to the tree or the circumstances relating to the damage observed at the base.

1.2 We have no connections with any of the parties involved in this case that could influence the opinions expressed in this report.

Plans and Documents

2.1 We were not supplied with a site plan. As part of the survey process we have plotted the tree onto a site plan prepared by Tree Surveys under licence from HMSO. (All rights reserved).

Scope

3.1 This report is concerned with the arboricultural aspects of the tree only.

3.2 The tree was inspected on the basis of the inspection procedures described by Lonsdale (Principles of tree hazard assessment and management, DETR booklet Research for Amenity Trees No. 7, 1999) and Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).

Site Visit

4.1 The inspection was undertaken by Simon Holmes, assisted by Tim Fairless, on the 8th February 2010.

4.2 The information contained in this report covers the tree we examined and reflects the condition at the time of inspection.

4.3 The tree was inspected from ground level, with the aid of a short ladder, binoculars, a Picus Tomograph (decay detector) and a Resistograph (decay detection, micro drill).

4.4 No fungi or soil samples were removed for analysis.

4.5 The tree was not tagged as it is easily identified on site.

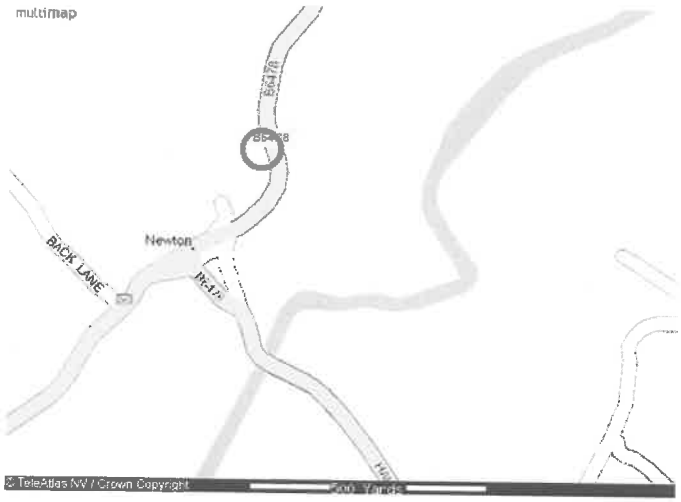
4.6 Care has been taken to obtain all information from reliable sources, and all data has been verified where possible. However, no guarantee can be given of the accuracy of information provided by others.

The Site

5.1 The site location is circled on plan 1 below and is owned or occupied by Mrs Townson of 1 College Cottages, Slaidburn Road, Newton in Bowland, Clitheroe, BB7 3EB. Access was via a short stretch of tarmac road (see photograph 1) that joins the public car park owned and managed by Lancashire County Council (LCC). Mrs Townson gave us access to the site. The site contains a number of low rise (single storey buildings) used infrequently by the owner and adjoins Hawthorn Cottage, see Site Plan 1 (appended SP 1).

The landscape character of the site is consistent with the rural designation and Newton Conservation Area status.

PLAN 1



PHOTOGRAPH 1

Description Of The Tree

6.1 The tree is an Ash (*Fraxinus excelsior*) situated on the Southern boundary of the site. The site is located within the Newton Conservation Area.

6.2 The following data was obtained using a rounded down forestry girth tape and a Laser Ace clinometer. The tree is 24m in height and has a mean crown radius of 8m. It as a trunk diameter at 1.5 metres AGL of 150cm and the crown forms at 5 metres. The base of the tree collectively stands on land owned by LCC and Mrs. Townson. The tree is growing within falling distance of the adjacent outbuildings and is also within falling distance of Hawthorn Cottage (22.2m) and the public car park. The crown of the tree is typical of the species being generally dense and well furnished with some minor dead wood.

6.3 We conducted a visual inspection from the public car park and both sides of the boundary wall. As we approached the site the canopy was visible above the surrounding features (see photograph 2 to the right) and the structural condition appeared good with normal physiological attributes.

PHOTOGRAPH 2

6.4 The visual tree assessment (VTA), decay detection and risk assessment process included a close inspection of the root area, the base of the stem, the main stem, canopy and finally extension growth measurements.

6.5 A close inspection of the root area revealed no external signs of fungal infection although part of the root area was obscured by a stack of natural stone. A small collection of charred stones close to the main stem were observed and it is assumed that they are used for the control of small fires.

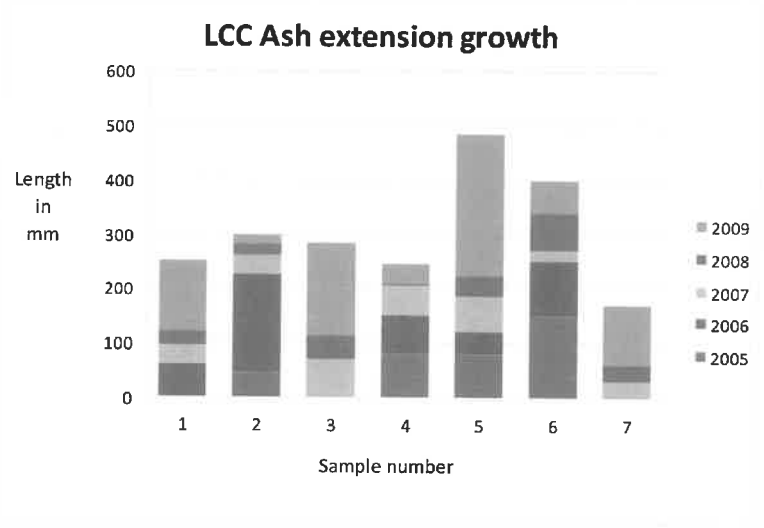
6.6 The main stem has a large area of necrotic (dead bark) on the North side from ground level up to 1.2m AGL, (see photograph 3). Fruiting bodies of the fungi D*aldinia Concentrica* (King Arthur's cakes) were seen on and around the surface of the wound. Callous growth at the margins of the wound exhibit signs of deterioration although no obvious signs of advanced decay were observed in the vicinity of the wound.

PHOTOGRAPH 3

6.7 A large open cavity on the South side of the main stem at 3m AGL was observed and inspected from a ladder. The cavity opening is 40mm x 27mm x 85mm deep. A soft white rot is visible in the cavity; this extends 60cm down into the stem. A small fungal fruit body was visible at the back of the cavity and removed for identification.

6.8 The physiological condition, canopy density and extension growth (TABLE 1) are all normal indicators for the species. The canopy spread is even and well distributed.

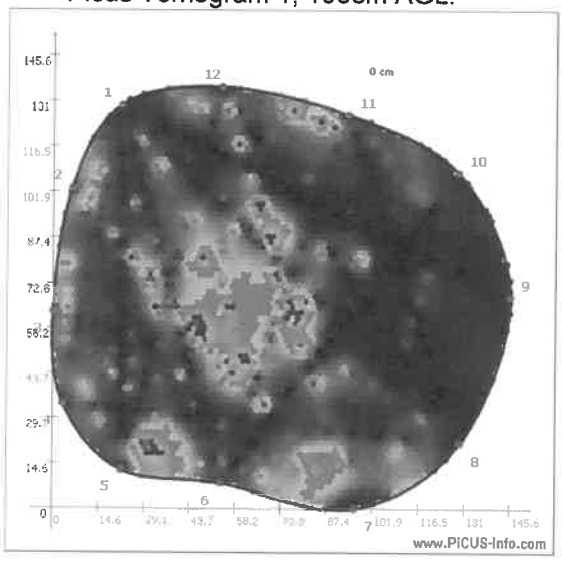
TABLE 1



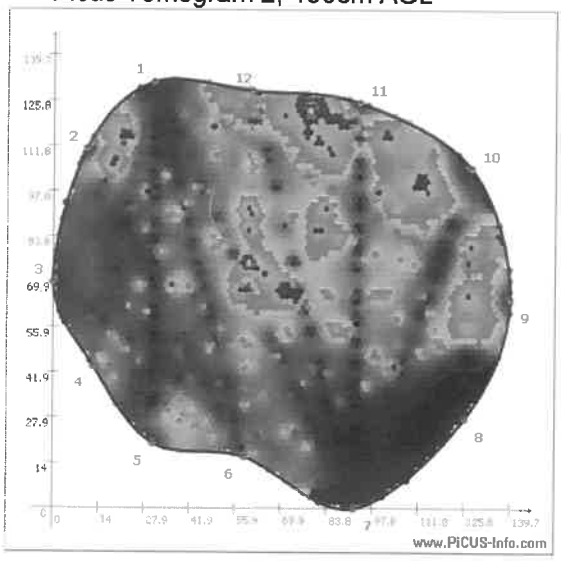
6.9 Inspecting the upper canopy with binoculars no significant structural defects were visible, minor deadwood was observed circa. 75mm in diameter together with a number of crossing and rubbing branches.

6.10 The Picus Tomograms were undertaken at 100 and 150cm AGL respectively and copies are reproduced below.

Picus Tomogram 1, 100cm AGL.



Picus Tomogram 2, 150cm AGL



6.11 A series of seven Resistograph drillings were undertaken to assess the density of stem. The drillings corresponded with either Picus sensors or were strategically undertaken around the stem circumference below the cavity, copies are enclosed in the appendix.

Conclusions

7.1 The damage observed at the base of the main stem is located on the same side as the stone collection and it is reasonable to assume this is used for controlled burning of debris. The damage to the stem is typical of that associated with fire. The death of tissues in this location also corresponds to die back (deadwood in the canopy) and it is reasonable to assume that the fire damage is the main Causal agent.

7.2 *Daldinia concentrica*, the fungus observed on the surface of the wound acquired its common name of 'King Arthur's Cakes' due to, apparently, their resemblance to the cakes which the king burned! This fungus is very common and widespread in Britain. It is frequently seen growing on dead branches, mainly on Ash and is a good indicator of areas of dead wood.

7.3 The soft white rot within the cavity and fungal bracket are thought to be that of 'Dryads saddle', (*Polyporus squamosus)* as the bracket had features commonly associated with it. The fungus is parasitic, feeding upon the heart wood of its host tree and is common and widespread in Britain and Europe. It produces an intensive white rot within its host tree.

7.4 Picus tomogram 1 shows an area of incipient decay associated with the damaged stem (fire) and coalescing decay from the cavity above. Picus tomogram 2, shows a larger area of incipient decay associated with the cavity and we believe it is coalescing with decay from below.

7.5 Resistograph tests 5 and 6 clearly identify the area of stem decay and residual wall remaining around the cavity. Test 4 shows clear signs of incipient and advanced decay.

7.6 Callous around tree wounds is a natural reaction to wounding in many species and can close a wound, it does not heal it. The callus present suggests that the tree is vigorous and is trying to adapt to the wounding. The extension growth measurements show varying degrees of vitality and there is no obvious evidence to explain this, temperature, rain fall and many other factors contribute to successful growth, the average extension measurement was 61mm, adequate for the species and age range.

Recommendations

8.1 Carry out a 20% crown reduction in order to reduce the wind load and mass upon the main stem. This work should be undertaken within the next three months.

8.2 Conduct a follow up VTA in July 2011.

Arboricultural Standards

9.1 All tree works should be done in accordance with the British Standard Recommendations for Tree work, BS 3998; 1989 and should be undertaken by properly qualified and experienced Tree Contracting Companies. It is advised that you check that they carry public and products liability insurance minimum £5 million cover.

Simon P Holmes MICFor. M Arbor A. AD (Arb), Tech Cert (Arbor A).
Chartered Arboriculturist

APPENDIX

THE LEGAL PROTECTION OF TREES.

Before work is carried out on any of the trees mentioned in this report it is essential that the owner satisfy himself as to whether or not they have legal protection. Such protection is briefly summarised below.

1. Conservation Areas

Before work is carried out on any tree with a trunk diameter greater than 7.5cms (measured at 1.5m above ground level) that is growing in a Conservation Area designated under the Town and County Planning Act 1990, the Local Planning Authority must be notified in writing. The Authority then has six weeks to consider the matter during which time Officers may make a Tree Preservation Order in respect of any trees, which are the subject of the notification. After the six weeks has expired, if the Authority has made no objection, work can proceed.

2. Tree Preservation Orders

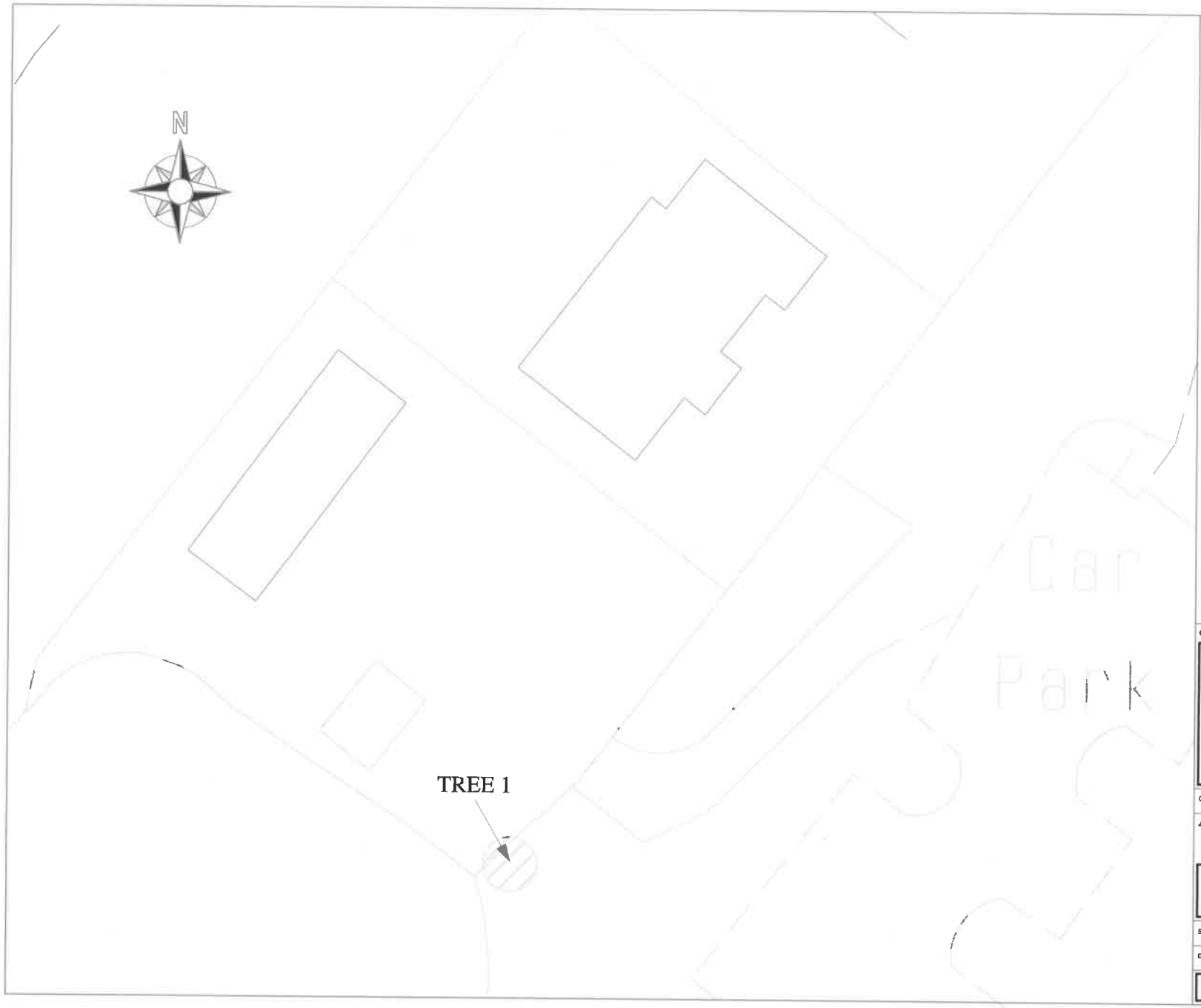
Before any work can be carried out on a tree, which is the subject of a Tree Preservation Order made under the Town and County Planning Act 1990, the consent of the Local Planning Authority must be obtained. Such application for consent must generally be made by the way of a formal Planning Application, which may necessitate consideration by the Planning Committee of the Authority (although many Authorities delegate powers to deal with routine matters to their professional Officers).

There are some exceptions to these regulations. These include:

- Removal or pruning of trees or branches that are dead, dying or presently dangerous. (Except in an emergency it is advised that the local Planning Authority is given five days notice before work commences on a tree under this exception. The burden of proof to show that the tree was dead, dying or dangerous rests with the defendant.)

- Removal or pruning of trees or branches to prevent or abate an actionable nuisance. This means that there must be an immediate risk of actual foreseeable damage. (It would be prudent to consult a solicitor before cutting a tree under this exemption.)

If there is any doubt about whether a tree may or may not be protected the Local Planning Authority should be consulted.



NOTES

All dimensions must be checked on site and not scaled from this drawing.

Tree Surveys
Unit H. Bridge Farm
Reading Road, Arborfield
Berkshire RG2 9HT
Tel: 0118 9762902
Fax: 0118 9761168
e-mail: info@tree-surveys.com

Client	LANCASHIRE COUNTY COUNCIL
Job Title	1 COLLEGE COTTAGES
Drawing Title	TREE SURVEY
Scale	1:200
Date	08/02/2010
Drawn by	SPH
Drg. No.	SPH/VTA-01/08.02
Rev.	


College
Cottages
Hawthorn Cottage
1
2

Lancashire County Council
County Hall
Room D1
Preston
Lancashire
PR1 8RE

TREE SURVEYS
Unit H Bridge Farm
Reading Road
Arborfield
Berkshire
RG2 9HT
Phone: 01189 762902
info@tree-surveys.com

RISK ASSESSMENT

Tree: 1
Common Ash
Fraxinus excelsior

Tag Number:
In Conservation Area: Yes

Date: 08-Feb-10
Assessor: Simon Holmes
Priority: 1 Year

A mature specimen, stradling the boundary wall between LCC and land belonging to 1 College Cottages. Some fire damage to the base, with associated die back in the canopy. Ustulina fungi present on wound. Large cavity visible on main stem, with extensive decay.

Field of Assessment	Assessment Made	Addressing
A/ Purpose of Inspection and Assesment	In response to a potentially problematic enquiry	Safety
B/ Age and maturity relative to conditions	At full maturity, 95% - 100% + retained as an amenity tree	Safety/Viability
C/ Assessment of disorder / Disease	Established disease/fault, assess viability on annual basis	Safety/Health
D/ Soil Improvement, basal area + first 2m	Fair soil environment, moderate use, insignificant damage	Stability
E/ Consequences of past works / damage	Minimal, assessed as little addition to potential risks	Safety/Care
F/ Leaf size accounting for local conditions	Fair/good	Health
G/ Branch density, natural / pruned crowns	Good, even, and consistent throughout crown	Health
H/ Vigour, relative to local conditions	Good/fair	Health
I/ Tree form / structure linked to location	Good structural progression & 'in situ' development	Stability/Care
J/ Constraints around tree	Good, able to fully mature with careful pruning/reduction	Safety
K/ Species characteristics for location	Good, few problems anticipated &/or easily managed	Management
L/ Location factors	Public amenity area with moderate/high use	Safety
M/ Period within documented management	Initial inspection/assessment for documented management	Duty of Care
N/ Potential impact if failure occurs	Med PL exposure. eg open, lightly populated	Risk Reduction
O/ Low value claims, estimated up to £25K	Any location, proximity To highway & structures: £25K +	Claim Assessment
P/ Higher value claims, £1 - £5m	High PL exposure & material claims, all risks. £1m	Claim Assessment

Next inspection due date: 08 February 2011

Bat Habitat: Unknown

Action Recommendations:	Hours:	Completed:	Relating To:
Reduce crown(s) By 25%	0.0	No	C/ Assessment of disorder / Disease

Comment.
Large cavity of main stem assessed with Picus and Resistograph.

RISK MANAGEMENT:

Assessments from sixteen areas of information are combined to provide a Hazard Factor A - G. This Factor is a guide and does not replace professional judgement. It does allow comparison between inspections and it does reflect changes in non-tree related issues. Seven bands help povide a blended assessment.

A, B Low risk and may be suitable for extending period between inspections.
C, D, E Will probably relate to the majority of the trees in a survey.
F, G Likely to prompt further investigation and/or remedial work.

Specifying remedial or maintenance work is an option in each area of assessment.

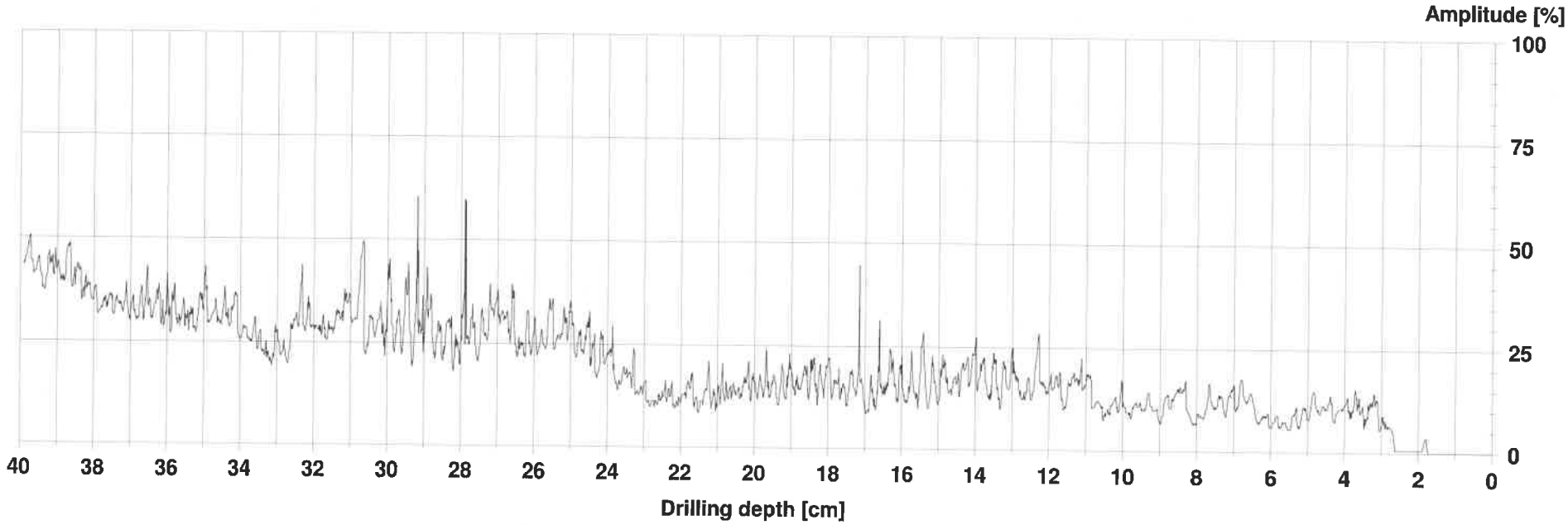
BAND	
A	
B	
C	
D	X
E	
F	
G	

Measuring / object data

Measurement no.	: 1	**Avg. curve**	: off
Drilling depth	: 39,91 cm	**Diameter**	: 141,0 cm
Wood species	: Hard (2)	**Level**	: 150,0 cm
ID number	: 0802-000N0 -	**Direction**	: Sensor 12
Advance	: 23 cm/min	**Object species**	: Ash
Date	: 08.02.2010	**Location**	: Newton
Time	: 16:27:05	**Name**	: LCC

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :

Comment

No decay evident

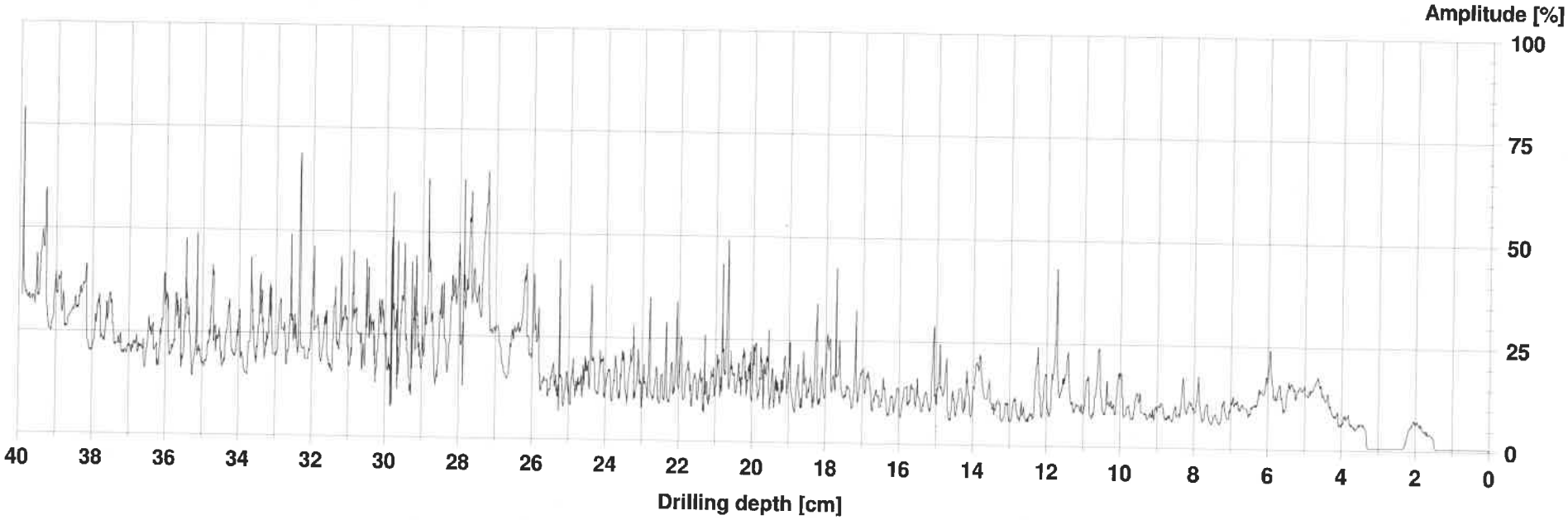
Measurement001.rgf

Measuring / object data

Measurement no.	: 2	**Avg. curve**	: off
Drilling depth	: 39,92 cm	**Diameter**	: 141,0 cm
Wood species	: Hard (2)	**Level**	: 150,0 cm
ID number	: 0802-000N0 -	**Direction**	: Sensor 11
Advance	: 22 cm/min	**Object species**	: Ash
Date	: 08.02.2010	**Location**	: Newton
Time	: 16:29:58	**Name**	: LCC

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :
☐	**From**	0,0 cm	**to**	0,0 cm :

Comment

No significant decay present

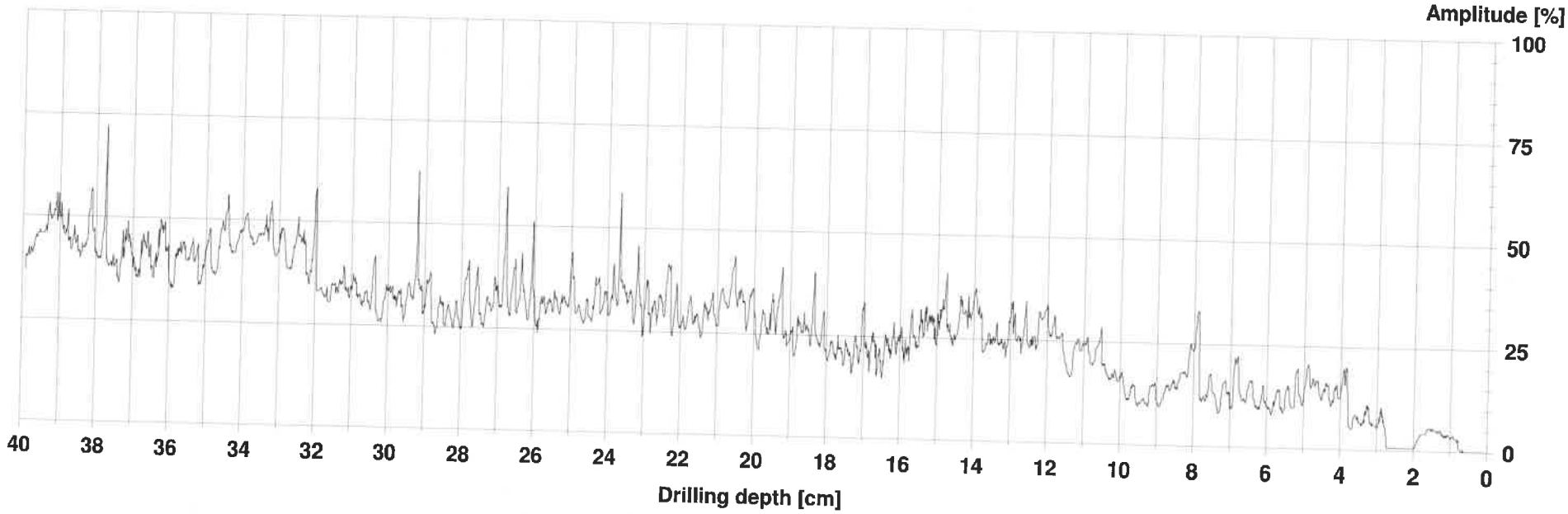
Measurement002.rgf

Measuring / object data

Measurement no.	: 3	**Avg. curve**	: off
Drilling depth	: 39,92 cm	**Diameter**	: 141,0 cm
Wood species	: Hard (2)	**Level**	: 150,0 cm
ID number	: 0802-000N0 -	**Direction**	: Sensor 10
Advance	: 22 cm/min	**Object species**	: Ash
Date	: 08.02.2010	**Location**	: Newton
Time	: 16:32:43	**Name**	: LCC

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:

Comment

No significant decay

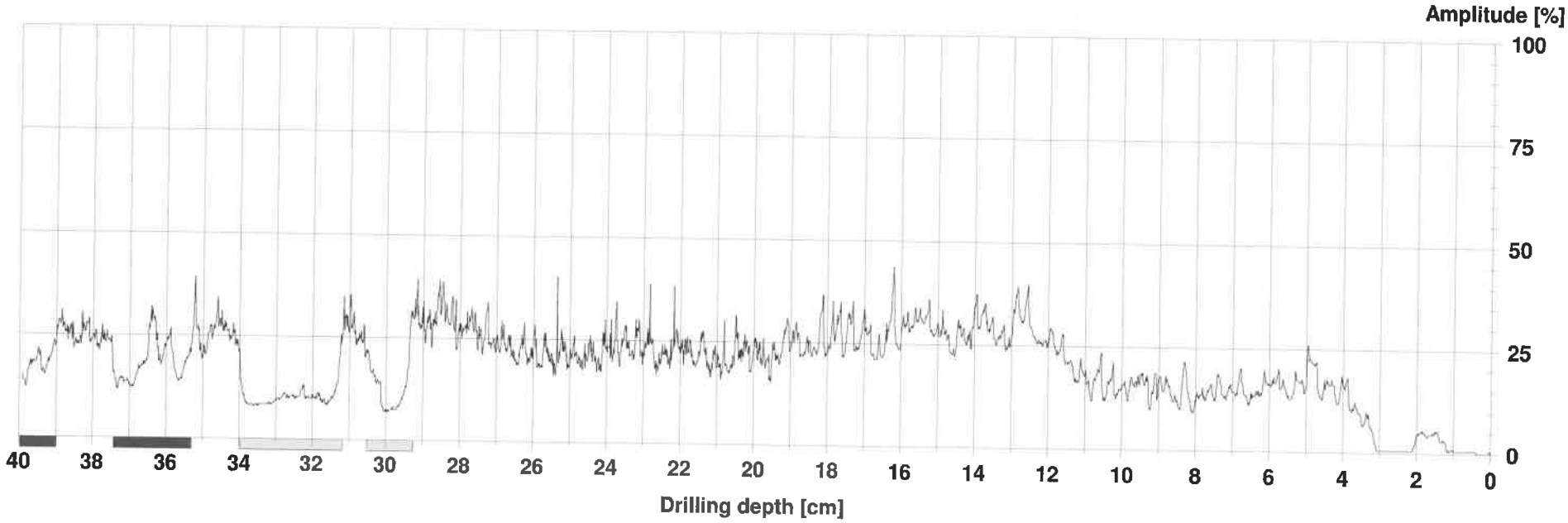
Measurement003.rgf

Measuring / object data

Measurement no.	: 4	**Avg. curve**	: off
Drilling depth	: 39,92 cm	**Diameter**	: 141,0 cm
Wood species	: Hard (2)	**Level**	: 150,0 cm
ID number	: 0802-000N0 -	**Direction**	: Sensor 9
Advance	: 22 cm/min	**Object species**	: Ash
Date	: 08.02.2010	**Location**	: Newton
Time	: 16:38:14	**Name**	: LCC

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	29,3 cm	**to**	30,5 cm	: Decay
From	31,2 cm	**to**	34,0 cm	: Decay
From	35,3 cm	**to**	37,4 cm	: Incipient decay
From	39,0 cm	**to**	40,0 cm	: Incipient decay
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:

Comment

Decay present beyond 29cm

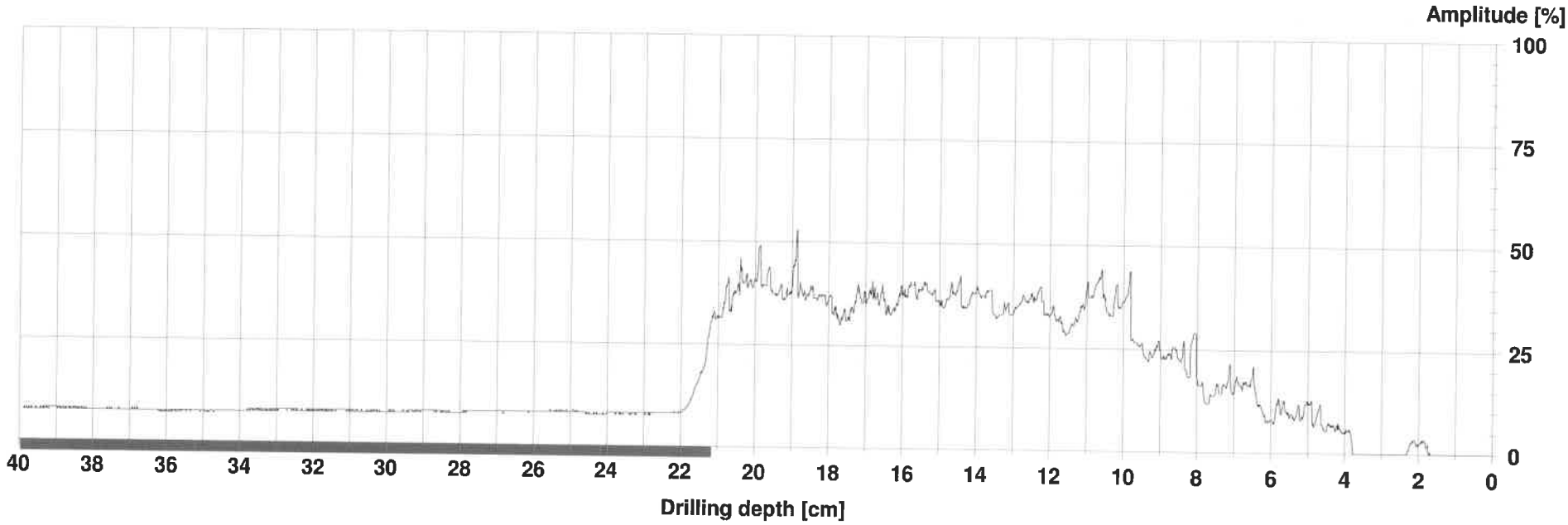
Measurement004.rgf

Measuring / object data

Measurement no.	: 5	**Avg. curve**	: off
Drilling depth	: 39,91 cm	**Diameter**	: 125,0 cm
Wood species	: Hard (2)	**Level**	: 240,0 cm
ID number	: 0802-000N0 -	**Direction**	: South
Advance	: 22 cm/min	**Object species**	: Ash
Date	: 08.02.2010	**Location**	: Newton
Time	: 17:16:30	**Name**	: LCC

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



Assessment

From	21,2 cm	**to**	40,0 cm	: Cavity
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:

Comment

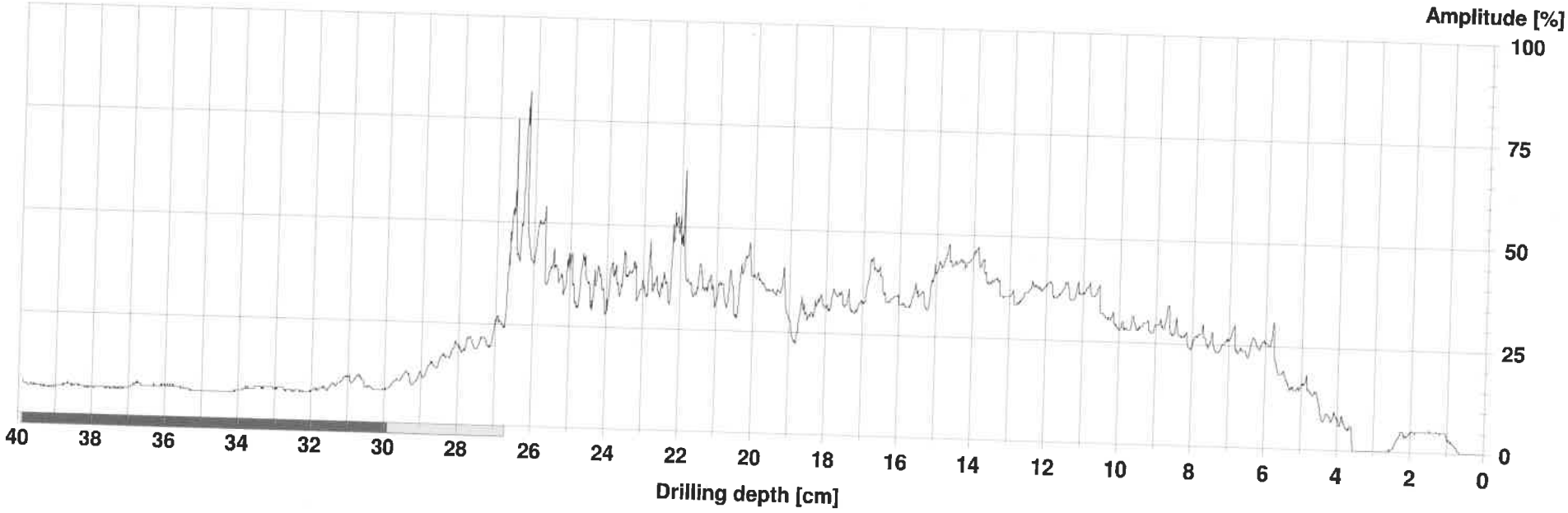
Cavity detected at 21cm, sampled 60cm below cavity opening

Measuring / object data

Measurement no.	: 6	**Avg. curve**	: off
Drilling depth	: 39,91 cm	**Diameter**	: 125,0 cm
Wood species	: Hard (2)	**Level**	: 240,0 cm
ID number	: 0802-000N0 -	**Direction**	: West
Advance	: 22 cm/min	**Object species**	:
Date	: 08.02.2010	**Location**	:
Time	: 17:20:02	**Name**	:

Cavity detector

Start / stop level	: ---
Maximum start depth	: ---
Mode	: ---
Level / width	: ---
Start / stop	: ---
Resulting length	: ---
Cavity	: ---



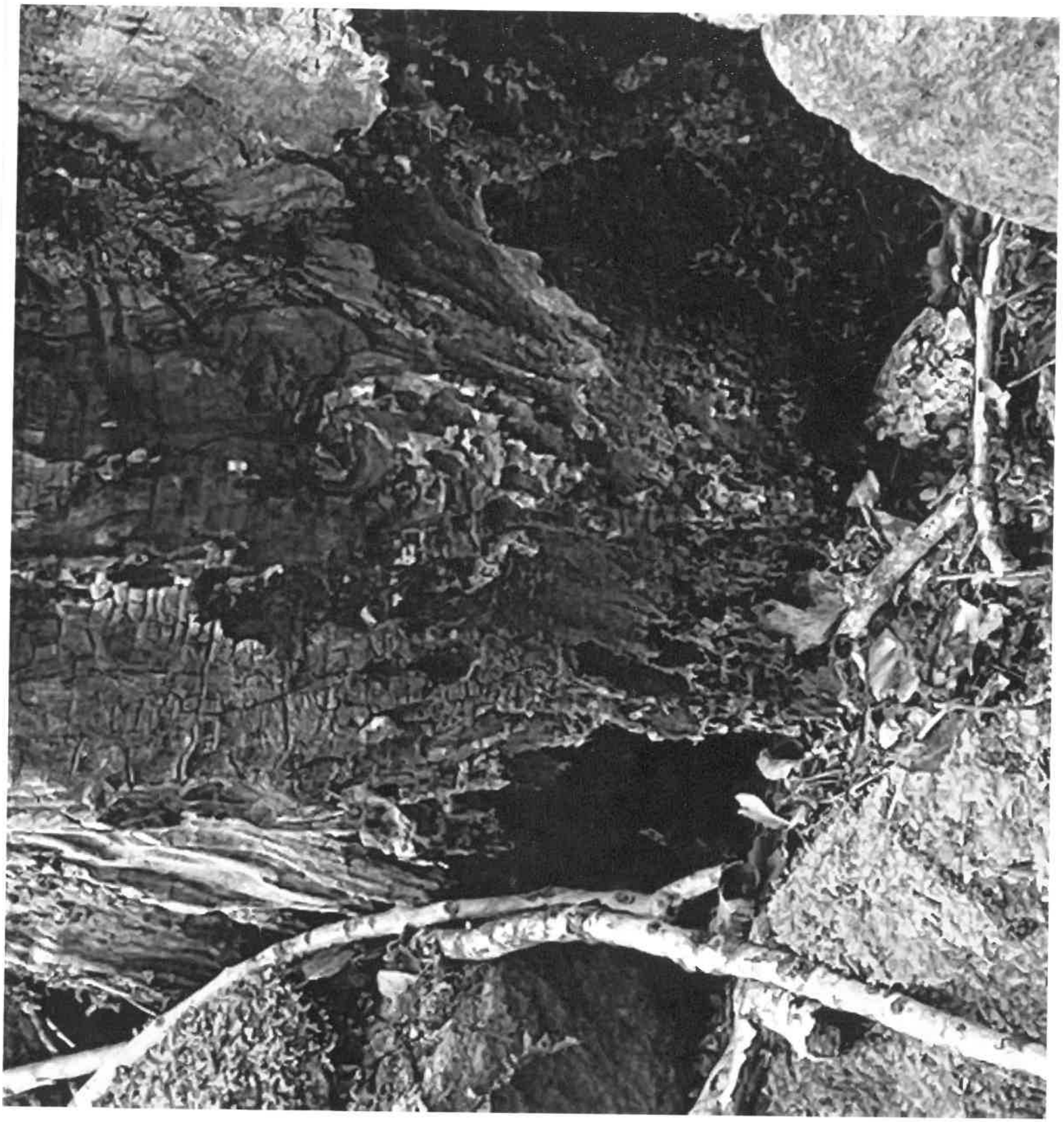
Assessment

From	26,7 cm	**to**	29,9 cm	: Decay
From	29,9 cm	**to**	39,9 cm	: Cavity
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:
From	0,0 cm	**to**	0,0 cm	:

Comment

Decay beyond 27cm with cavity from 29cm, sampled at 60cm below the cavity opening.

Measurement006.rgf



Ribble Valley Borough Council

Newton Conservation Area

Townscape Appraisal Map

- Conservation area boundary
- Listed Buildings
- Buildings of Townscape Merit
- Significant open spaces
- Important tree groups
- Important trees
- Proposed Article 4 Direction
- Important views
- Focal buildings