



ATWORTH ARBORICULTURE LTD
DECAY DETECTION TESTS ON 2 OAK TREES AT WREN GROVE,
HAVANT.



Prepared for: Upton Tree Specialists

Atworth Arboriculture Ltd, 189 Purlpit, Atworth, Melksham, Wiltshire, SN128HJ.

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Site Address:

Wren Grove,
Havant,
PO9 5FL.

Client:

Upton Tree Specialists.

Instruction:

Carry out Resistograph Decay detection test on main stem of 2 oak trees at the above location.

Inspection:

The Inspection was carried out on the 20th March 2023. The conditions were extremely wet. The Inspector was Vincent Cainey.

Tree 2: Turkey Oak *Quercus cerris* Height 18m Diameter 1320mm

General Observations:

This tree is on a green in the middle of Wren Grove. A play area is 11m west of the tree. At base to the south and southwest is large open Cavity (Picture 1). The cavity is 110cm across, 130cm high and 40cm deep. The surface wood of the wound is soft but only on the surface and becomes hard after 1cm. On the stem at 3.5m above ground level (agl) is an old flush cut pruning wound (Picture 2), with a further wound northwest at 4.5 m agl. To the south at 5m agl is a stub where a limb has been removed. There is a little decay at this point. The crown breaks at 8m agl. A lateral limb, west at the crown break has damage on the underside. The crown has been reduced with some large limbs reduced and some stubs remain The crown is asymmetrical as T3 is 2m east.

Picture 1



Picture 2



Resistograph Tests:

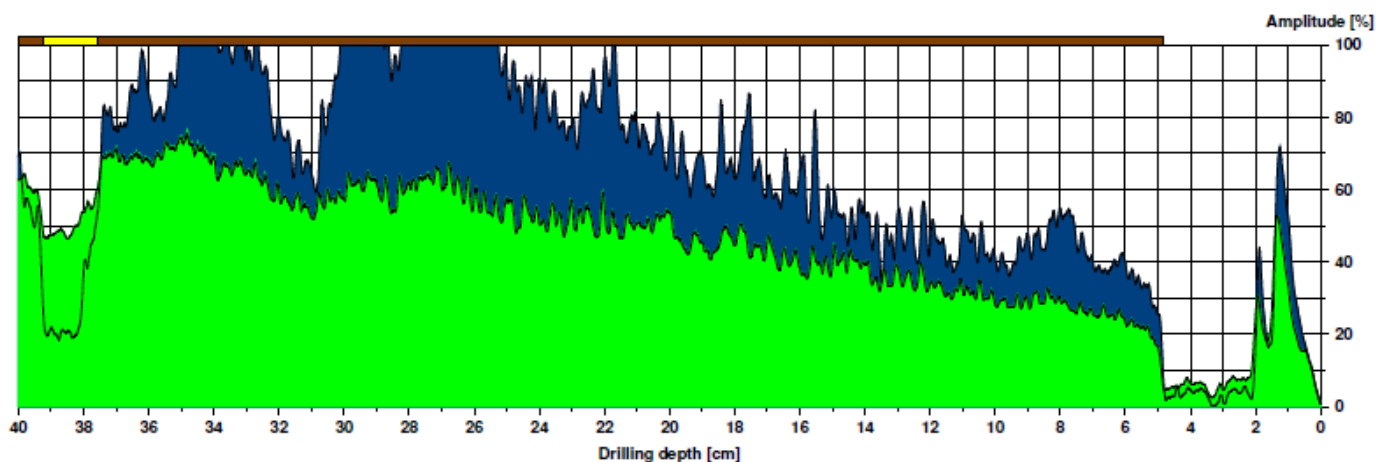
The Resistograph is a Drilling instrument that probes the tree with a micro drill with a 3mm tip and a 1.5mm x 400mm shaft; this can penetrate to a depth of 40cm. As the probe advances it measures the resistance encountered. Good healthy wood gives a high reading and poor dysfunctional wood, or cavity gives a lower reading. 2 curves are produced on each graph. The black graph represents the resistance, and the blue graph represents the feed rate. The resistance can be affected by friction on the shaft. The readings are presented below.

4 Resistograph test were carried out.

Direction	Height	Results
East	5cm	Good wood – 37cm, crack – 39, remainder good wood
North	5cm	Good Wood – 32cm, remainder decay
Northwest	5cm	All good wood
Southwest	0cm	All good wood

Measuring / object data

Measurement no.: 26	Speed : 2500 r/min	Diameter: 132,00 cm
ID number : Wren Grove T2 E5	Needle state: ---	Level : 5
Drilling depth : 40,11 cm	Tilt : ---	Direction: East
Date : 20.03.2023	Offset : 88 / 335	Species : Turkey oak
Time : 11:22:19	Avg. curve : off / off	Location : Wren Grove
Feed : 100 cm/min		Name : Vince Cainey



Assessment

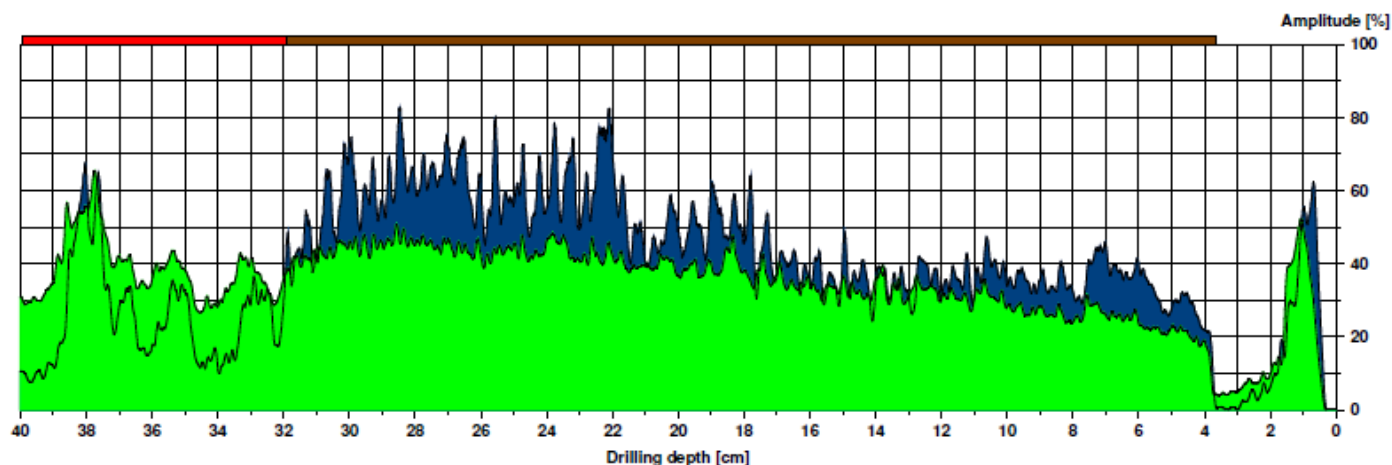
From 4,81 cm to 37,54 cm : Good Wood
From 37,54 cm to 39,26 cm : Crack
From 39,26 cm to 40,00 cm : Good Wood

Comment

Wren Grove T2 E5M026

Measuring / object data

Measurement no.: 25	Speed : 2500 r/min	Diameter: 132,00 cm
ID number : Wren Grove T2 N5	Needle state: ---	Level : 5
Drilling depth : 40,06 cm	Tilt : ---	Direction: North
Date : 20.03.2023	Offset : 94 / 295	Species : Turkey oak
Time : 11:21:14	Avg. curve : off / off	Location : Wren Grove
Feed : 100 cm/min		Name : Vince Cainey



Assessment

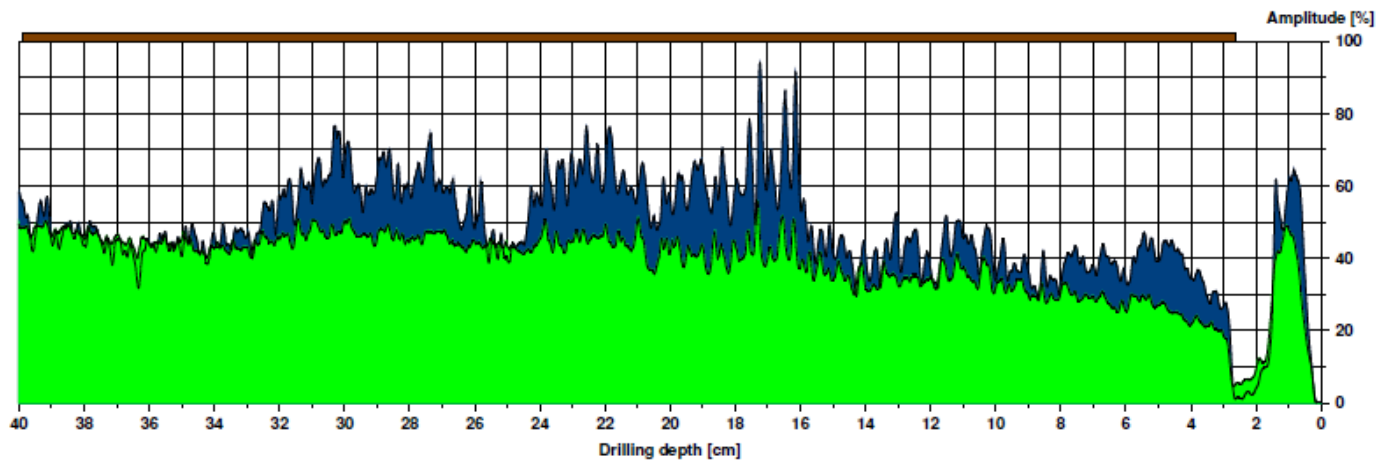
From 3,65 cm to 31,89 cm : Good Wood
From 31,89 cm to 39,94 cm : Decay

Comment

Wren Grove T2 NSM025

Measuring / object data

Measurement no.: 24	Speed : 2500 r/min	Diameter: 132,00 cm
ID number : Wren Grove T2 NW5	Needle state: ---	Level : 5
Drilling depth : 40,11 cm	Tilt : ---	Direction: Northwest
Date : 20.03.2023	Offset : 94 / 309	Species : Turkey oak
Time : 11:20:04	Avg. curve : off / off	Location : Wren Grove
Feed : 100 cm/min		Name : Vince Cainey



Assessment

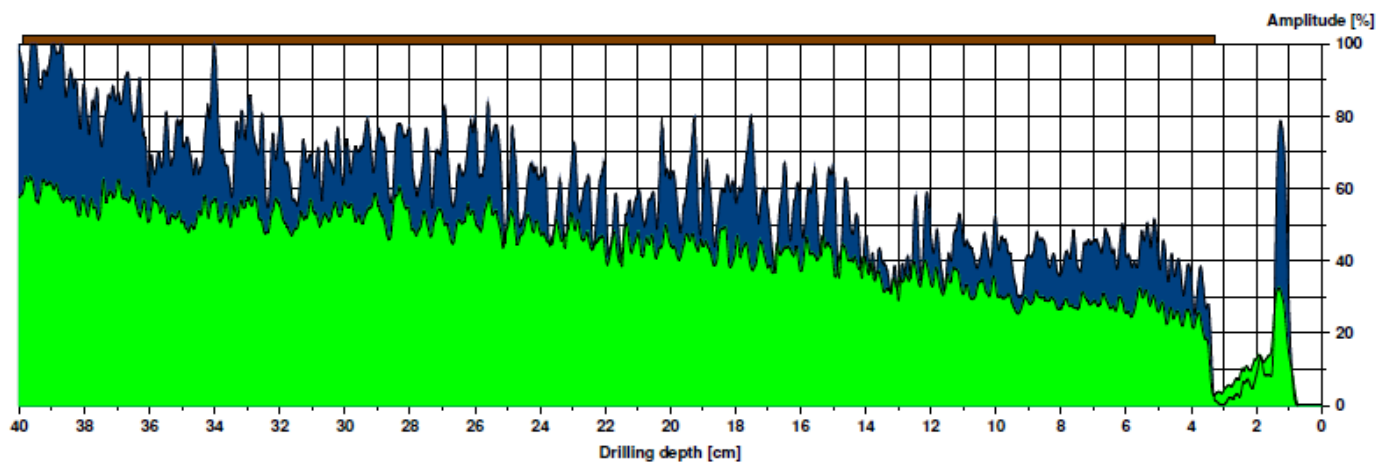
From 2,65 cm to 39,90 cm : Good Wood

Comment

Wren Grove T2 NW5M024

Measuring / object data

Measurement no.: 23	Speed : 2500 r/min	Diameter: 132,00 cm
ID number : Wren Grove T2 SW15	Needle state: ---	Level : 15
Drilling depth : 40,11 cm	Tilt : ---	Direction: Southwest
Date : 20.03.2023	Offset : 117 / 404	Species : Turkey oak
Time : 11:17:59	Avg. curve : off / off	Location : Wren Grove
Feed : 100 cm/min		Name : Vince Cainey



Assessment

From 3,26 cm to 39,87 cm : Good Wood

Comment

Wren Grove T2 SW15M023

Conclusion:

The Resistograph tests show that there is some decay in the north, north and a crack at 37cm to the east. The decay and crack are probably insufficient enough to affect the structural integrity of the tree. There are no signs of die back in the crown which may indicate stress from root damage by fungi.

Recommendations:

Re-inspect in 2 years or if the tree shows significant signs of decline.

Tree 2: Turkey oak Height 18m Diameter 1245mm

General observations:

This tree is 2m east of T2. The road is 15m east, 12m north and 15m south. On the north side of the stem from ground level to 2.5m agl is a large open cavity (Picture 3), which is 50cm wide and up to 60cm deep. At some stage there has been a fire in the cavity. At the base of the calls are remnants of old fungal brackets that have been knocked off. To the east at ground level is an area of bark damage. The stem leans to the east. There are lots of old pruning wounds around the crown break at 5m agl, one more recent limb removed north at 5m agl. To the east and south are 2 large lateral limbs that are over 10m long. More limbs have been removed northeast at 9m agl. and central at 12m agl. On the southeast ascending stem at 14m agl is a bracket fungus, possibly inonotus (Picture 4). The crown has been reduced with some old stubs where branches have snapped off.

Picture 3



Picture 4

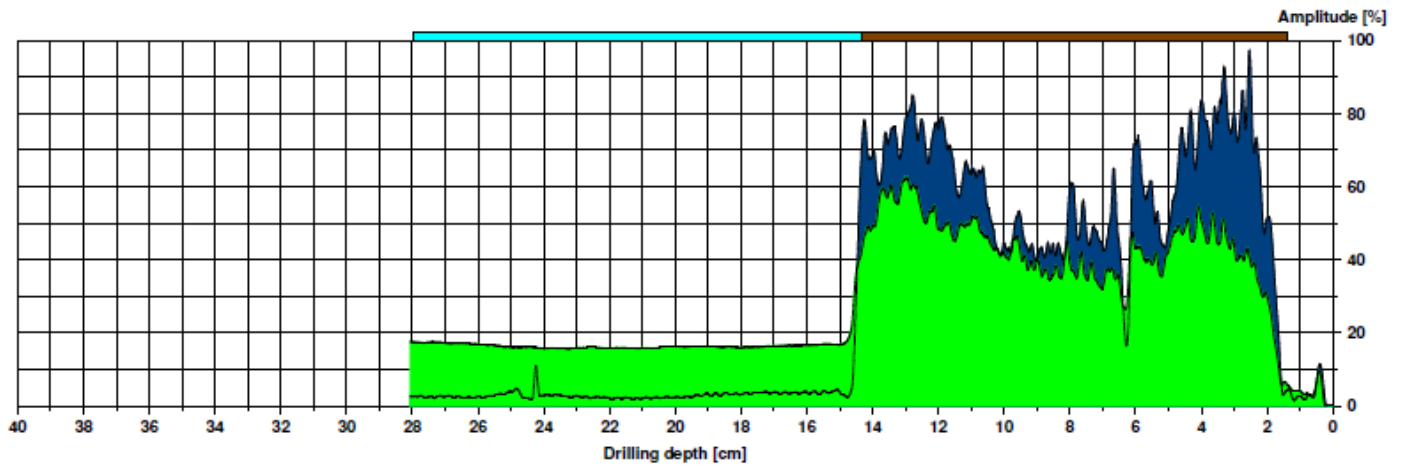


4 Resistograph test were carried out.

Direction	Height	Results
East	5cm	Good wood – 14cm, remainder cavity
East	60cm	Crack 16 - 17cm, remainder good wood
North	30cm	Good wood – 19cm, decay -26cm, good wood – 37cm, remainder decay
Northwest	60cm	Good – 31cm, decay – 35cm, remainder cavity
Northwest	10cm	Good – 6cm, remainder cavity
South	60cm	All good wood
Southwest	5cm	All good wood
West	60cm	Good wood – 38cm, remainder cavity

Measuring / object data

Measurement no.:	31	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 E5	Needle state:	---	Level	: 5
Drilling depth	: 28,06 cm	Tilt	: ---	Direction:	East
Date	: 20.03.2023	Offset	: 90 / 263	Species	: Turkey oak
Time	: 11:41:11	Avg. curve	: off / off	Location:	Wren Grove
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

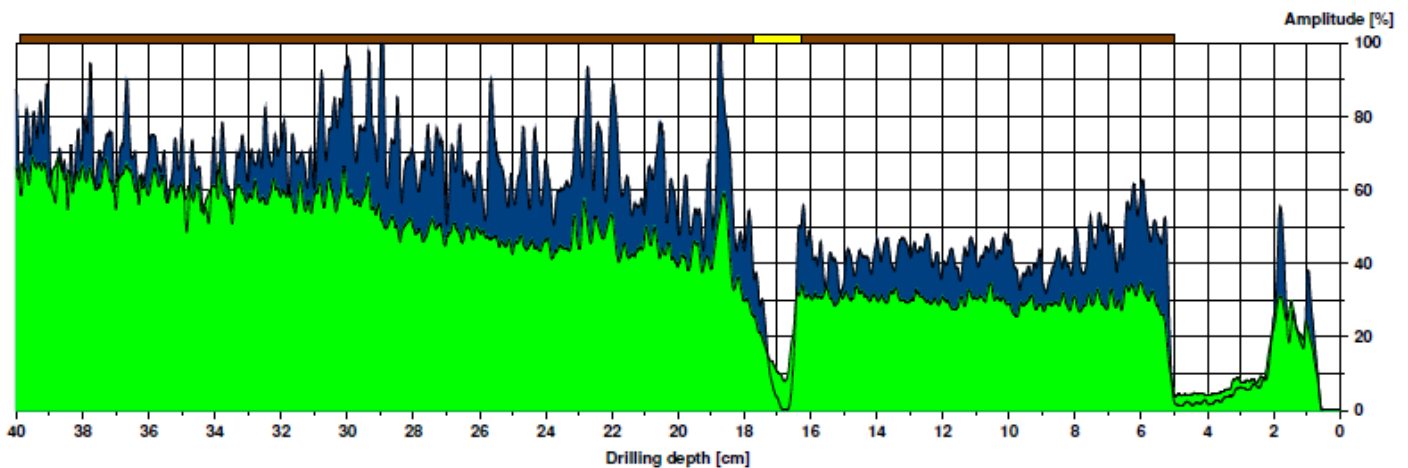
From 1,39 cm to 14,31 cm : Good Wood
 From 14,31 cm to 27,95 cm : Cavity

Comment

Wren Grove T3 ESM031

Measuring / object data

Measurement no.:	30	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 E60	Needle state:	---	Level	: 60
Drilling depth	: 40,10 cm	Tilt	: ---	Direction:	East
Date	: 20.03.2023	Offset	: 92 / 269	Species	: Turkey oak
Time	: 11:40:12	Avg. curve	: off / off	Location:	Wren Grove
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

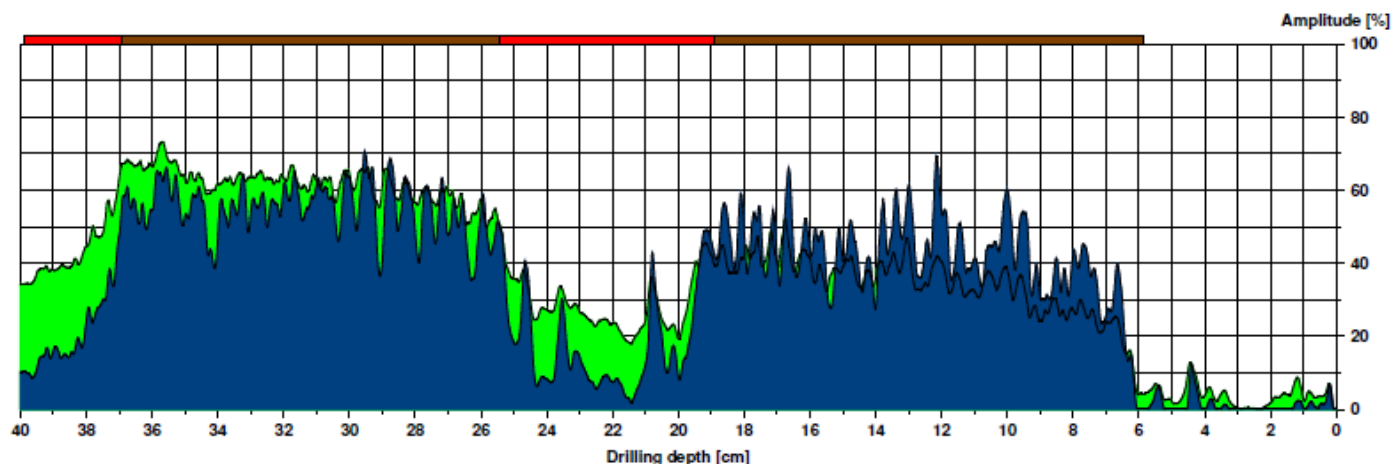
From 4,98 cm to 16,28 cm : Good Wood
 From 16,28 cm to 17,71 cm : Crack
 From 17,71 cm to 39,87 cm : Good Wood

Comment

Wren Grove T3 E60M030

Measuring / object data

Measurement no.:	33	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 N30	Needle state:	---	Level	: 30
Drilling depth	: 40,06 cm	Tilt	: ---	Direction:	North
Date	: 20.03.2023	Offset	: 82 / 290	Species	: Turkey oak
Time	: 11:44:05	Avg. curve	: off / off	Location	: Wren Grove
Feed	: 100 cm/min			Name	: Vince Caïney



Assessment

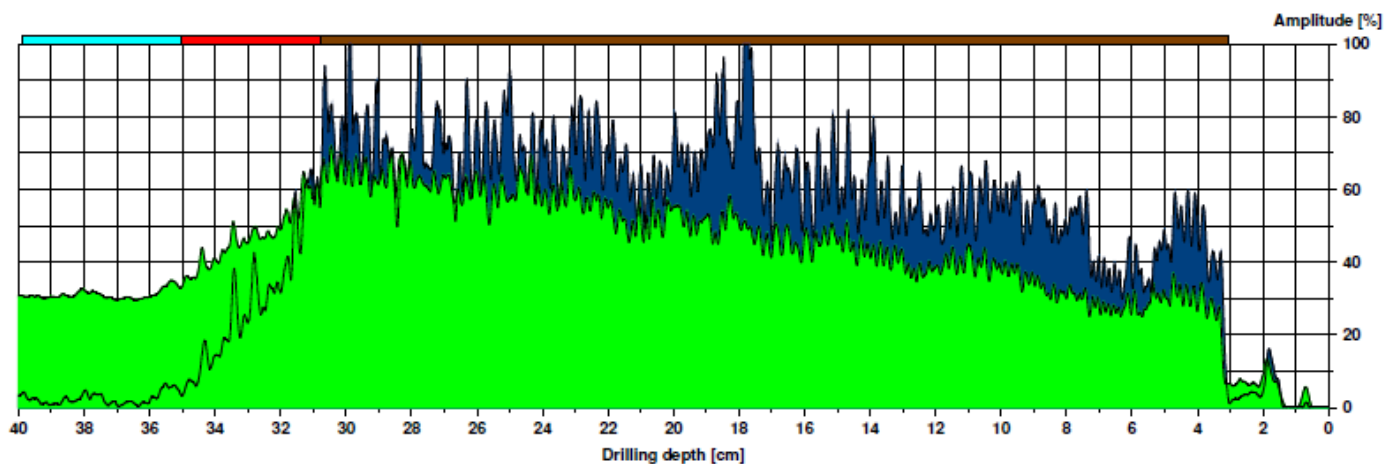
From	5,85 cm to	18,93 cm	: Good Wood
From	18,93 cm to	25,43 cm	: Decay
From	25,43 cm to	36,90 cm	: Good Wood
From	36,90 cm to	39,90 cm	: Decay

Comment

Wren Grove T3 N30M033

Measuring / object data

Measurement no.:	27	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 NW 60cm	Needle state:	---	Level	: 60
Drilling depth	: 40,05 cm	Tilt	: ---	Direction:	Northwest
Date	: 20.03.2023	Offset	: 106 / 309	Species	: Turkey oak
Time	: 11:37:00	Avg. curve	: off / off	Location	: Wren Grove
Feed	: 100 cm/min			Name	: Vince Caïney



Assessment

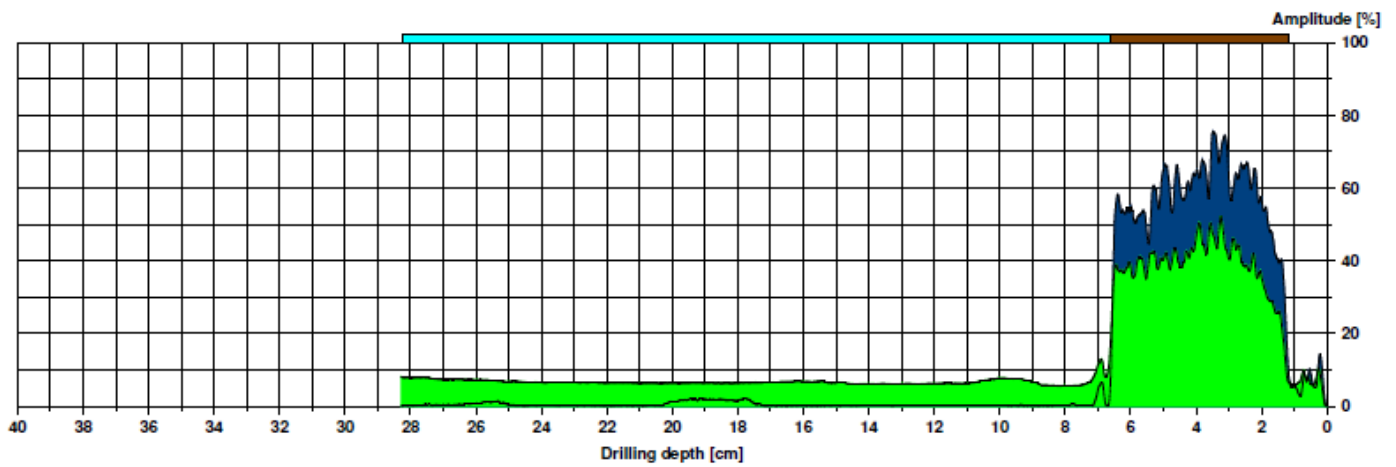
From	3,07 cm to	30,79 cm	: Good Wood
From	30,79 cm to	35,02 cm	: Decay
From	35,02 cm to	39,90 cm	: Cavity

Comment

Wren Grove T3 NW 60cmM027

Measuring / object data

Measurement no.:	34	Speed :	2500 r/min	Diameter:	124,00 cm
ID number :	Wren Grove T3 NW10	Needle state:	---	Level :	10
Drilling depth :	28,28 cm	Tilt :	---	Direction:	Northwest
Date :	20.03.2023	Offset :	80 / 279	Species :	Turkey oak
Time :	11:45:06	Avg. curve :	off / off	Location :	Wren Grove
Feed :	100 cm/min			Name :	Vince Cainey



Assessment

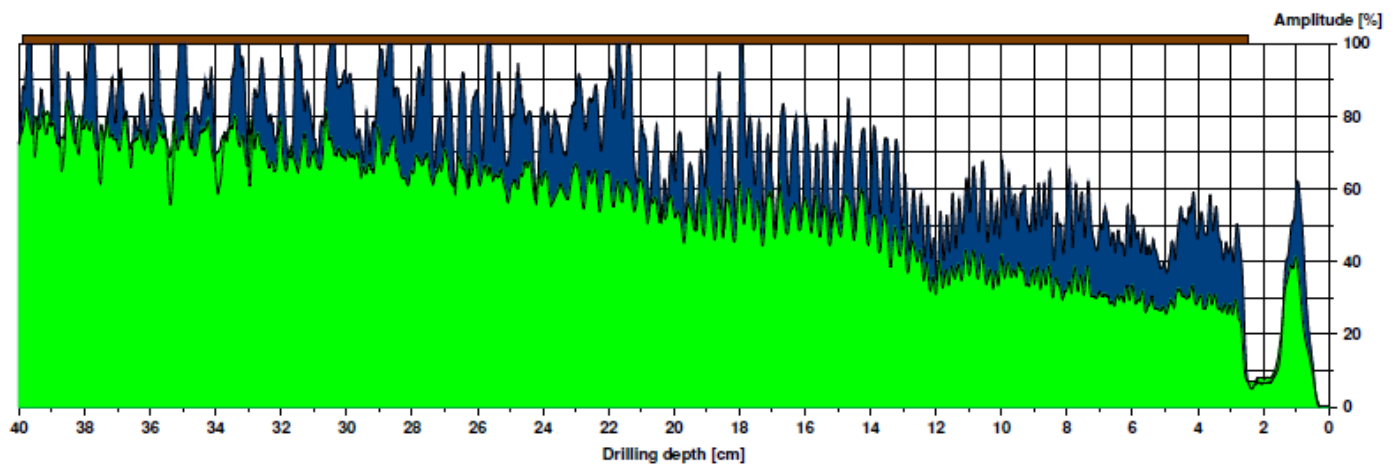
From 1,20 cm to 6,62 cm : Good Wood
 From 6,62 cm to 28,24 cm : Cavity

Comment

Wren Grove T3 NW10M034

Measuring / object data

Measurement no.:	29	Speed :	2500 r/min	Diameter:	124,00 cm
ID number :	Wren Grove T3 S60	Needle state:	---	Level :	60
Drilling depth :	40,11 cm	Tilt :	---	Direction:	South
Date :	20.03.2023	Offset :	91 / 274	Species :	Turkey oak
Time :	11:39:11	Avg. curve :	off / off	Location :	Wren Grove
Feed :	100 cm/min			Name :	Vince Cainey



Assessment

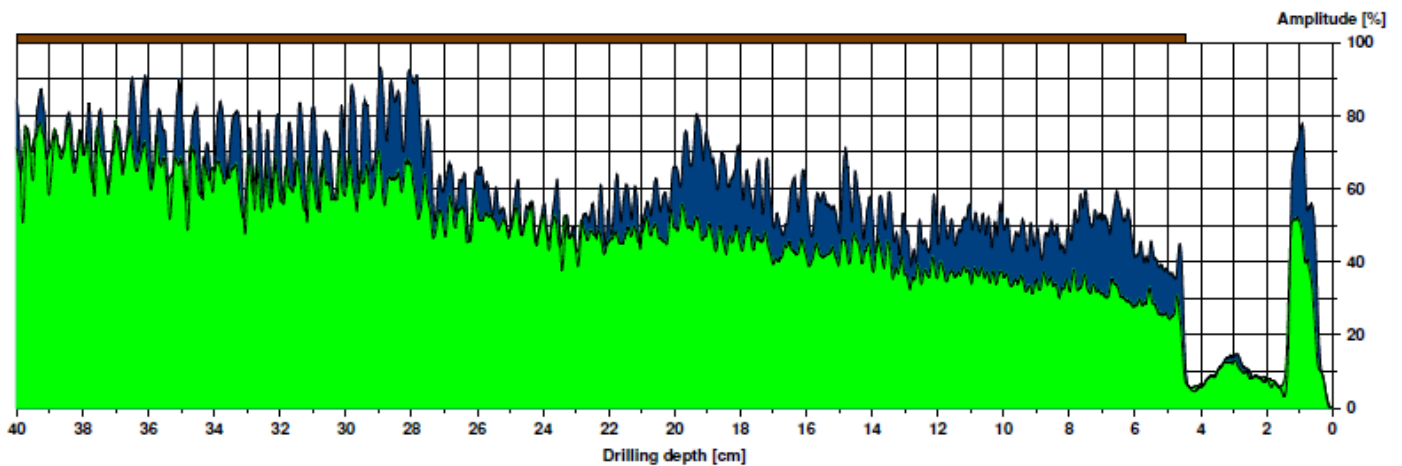
From 2,46 cm to 39,90 cm : Good Wood

Comment

Wren Grove T3 S60M029

Measuring / object data

Measurement no.:	32	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 SW5	Needle state:	---	Level	: 5
Drilling depth	: 40,12 cm	Tilt	: ---	Direction:	Southwest
Date	: 20.03.2023	Offset	: 83 / 306	Species	: Turkey oak
Time	: 11:42:09	Avg. curve	: off / off	Location	: Wren Grove
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

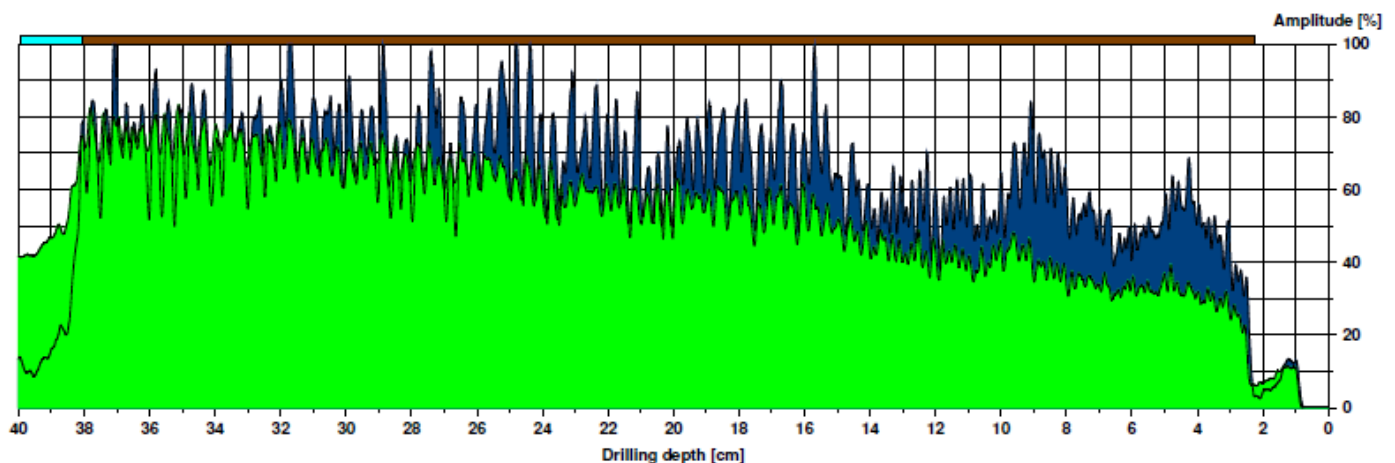
From 4,46 cm to 39,97 cm : Good Wood

Comment

Wren Grove T3 SW5M032

Measuring / object data

Measurement no.:	28	Speed	: 2500 r/min	Diameter:	124,00 cm
ID number	: Wren Grove T3 W60	Needle state:	---	Level	: 60
Drilling depth	: 40,07 cm	Tilt	: ---	Direction:	West
Date	: 20.03.2023	Offset	: 95 / 287	Species	: Turkey oak
Time	: 11:38:03	Avg. curve	: off / off	Location	: Wren Grove
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

From 2,26 cm to 38,06 cm : Good Wood
From 38,06 cm to 39,94 cm : Cavity

Comment

Wren Grove T3 W60M028

Conclusions:

The Resistograph readings show significant decay and cavity to the east, north and northwest. This level of decay and cavity will affect the structural integrity of the tree. The bracket fungus up in the crown shows that other parts of the tree are affected. It is unlikely that the same decay is affecting the base and limbs in the crown.

Recommendations:

The tree should be felled as soon as practically possible. This work should be done by a fully qualified and insured tree surgeon working to BS3998 (2010), Tree work.

A handwritten signature in blue ink, appearing to read 'V. Caaney', on a light-colored background.

Vince Caaney BSc

25th April 2023.