

ATWORTH ARBORICULTURE LTD



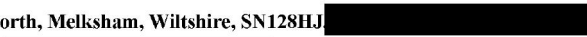
DECAY DETECTION ON A EUCALYPTUS TREE AT 11, DARTMOUTH ROAD, LONDON.



Prepared for:



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



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Site Address: 11, Dartmouth Road, London, NW5 1SU.



Instruction: Carry out Resistograph tests on the main stem of 1 tree at the address above. The tree was inspected by Vince Cainey on the 2nd March 2023. The weather was dry and sunny.

Tree: Eucalyptus *Eucalyptus gunni* Diameter at base 815mm Height 11m

General Observation:

This tree is in the rear garden of the property on the northern boundary. The house is 8m west and the neighbouring property N°13, 10m northwest and the garden that property 1m north. A gap has been left in the boundary wall to accommodate the growth of the tree. This gap is filled by a willow fence 25cm from the tree. No faults were observed at the base of the tree. On the east side of the tree from ground level as 170cm above ground level (agl) the bark has come away revealing a white powdery deposit (Picture 1). When tapped with a nylon mallet, the area sounds normal. on the west side of the stem at 50cm agl is an area of exposed heartwood with some decay (Picture 2). The base of the stem appears a little swollen to 1.4m agl. The stem bifurcates at 2.2m agl with stems northeast and southwest. There are some old pruning wounds on the stem and in the crown. The crown has been reduced and pollarded. Both ascending limbs bifurcate. The crown appears normal.

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 and feed rate of the needle. Good healthy wood gives a high reading and poor dysfunctional wood, or cavity gives a lower reading. The readings are presented in Appendix 1 at the foot of the report.

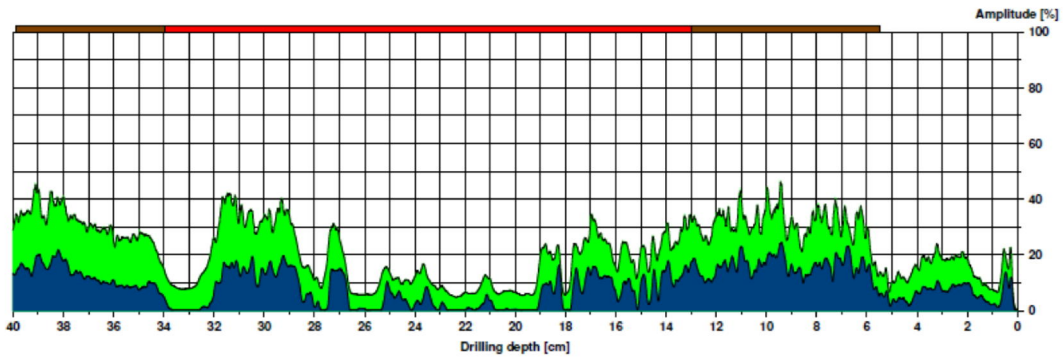
The instrument used was the IML Resistograph PD400. There are 5 different speed settings to accommodate the various wood densities. The data is recorded electronically. The readings show the measured resistance as the green colour and the feed rate of the needle as a blue colour.

8 Resistograph test were carried out.

Direction	Height	Results
East	40cm	Good – 13cm, decay – 34cm, remainder good
East	0cm	All good
Northeast	0cm	Decay – 18cm, cavity – 29cm, decay – 34cm, remainder cavity
Northwest	0cm	Good – 34cm, remainder early decay
South	50cm	All good
South	0cm	Good – 17cm, decay -29cm, remainder cavity
Southwest	0cm	Crack, 30 – 35cm, remainder good
West	50cm	All good

Measuring / object data

Measurement no.:	33	Speed	: 2500 r/min	Diameter:	81,00 cm
ID number	: 11 Dartmouth Rd E40	Needle state:	---	Level	: 40
Drilling depth	: 40,06 cm	Tilt	: ---	Direction:	East
Date	: 02.03.2023	Offset	: 82 / 258	Species	: Eucalyptus
Time	: 14:56:53	Avg. curve	: off / off	Location	: 11, Dartmouth Road
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

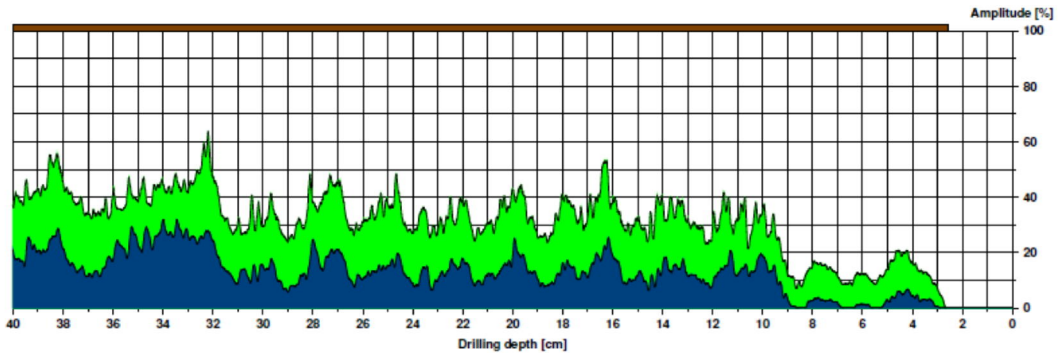
From	5,46 cm to	12,96 cm	: Good Wood
From	12,96 cm to	33,96 cm	: Decay
From	33,96 cm to	39,90 cm	: Good Wood

Comment

11 Dartmouth Rd E40M033

Measuring / object data

Measurement no.:	28	Speed	: 2500 r/min	Diameter:	81,00 cm
ID number	: 11 Dartmouth Rd East 0	Needle state:	---	Level	: 0
Drilling depth	: 40,08 cm	Tilt	: ---	Direction:	East
Date	: 02.03.2023	Offset	: 105 / 284	Species	: Eucalyptus
Time	: 14:49:20	Avg. curve	: off / off	Location	: 11, Dartmouth Road
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

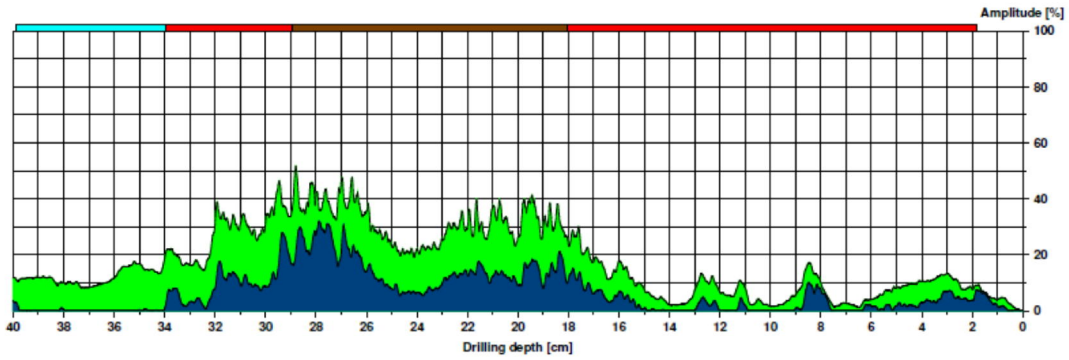
From	2,58 cm to	39,97 cm	: Good Wood
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Comment

11 Dartmouth Rd East 0M028

Measuring / object data

Measurement no.:	29	Speed :	2500 r/min	Diameter:	81,00 cm
ID number :	11 Dartmouth Rd NE 0	Needle state:	---	Level :	0
Drilling depth :	40,05 cm	Tilt :	---	Direction:	Northeast
Date :	02.03.2023	Offset :	90 / 279	Species :	Eucalyptus
Time :	14:50:41	Avg. curve :	off / off	Location :	11, Dartmouth Road
Feed :	100 cm/min			Name :	Vince Cainey



Assessment

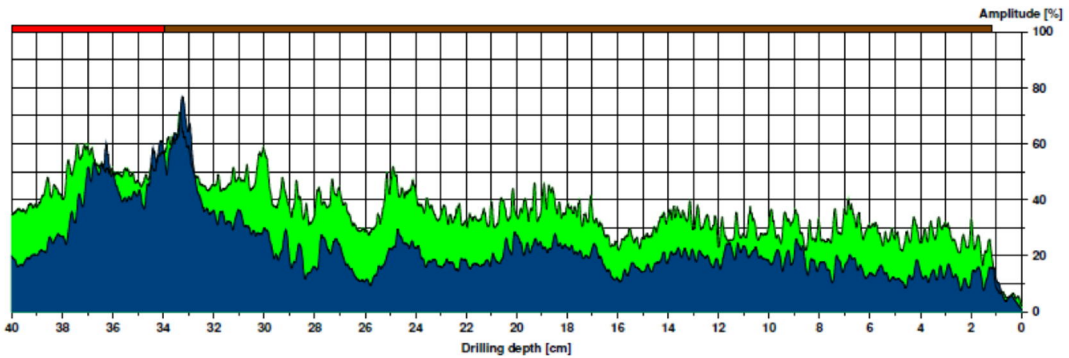
■	From 33,96 cm to 39,87 cm : Cavity
■	From 18,03 cm to 28,95 cm : Good Wood
■	From 1,84 cm to 18,03 cm : Decay

Comment

11 Dartmouth Rd NE 0M029

Measuring / object data

Measurement no.:	31	Speed :	2500 r/min	Diameter:	81,00 cm
ID number :	11 Dartmouth Rd NW 0	Needle state:	---	Level :	0
Drilling depth :	40,08 cm	Tilt :	---	Direction:	Northwest
Date :	02.03.2023	Offset :	77 / 321	Species :	Eucalyptus
Time :	14:53:07	Avg. curve :	off / off	Location :	11, Dartmouth Road
Feed :	100 cm/min			Name :	Vince Cainey



Assessment

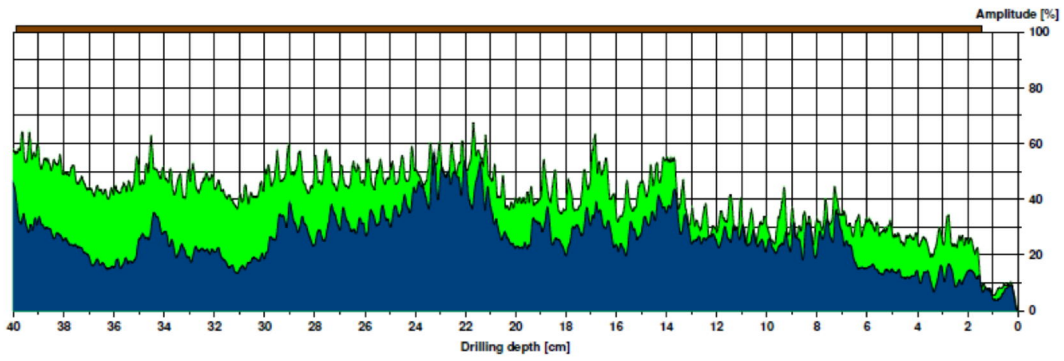
■	From 33,96 cm to 40,00 cm : Decay
■	From 1,20 cm to 33,96 cm : Good Wood

Comment

11 Dartmouth Rd NW 0M031

Measuring / object data

Measurement no.:	34	Speed :	2500 r/min	Diameter:	81,00 cm
ID number :	11 Dartmouth Rd S50	Needle state:	---	Level :	50
Drilling depth :	40,09 cm	Tilt :	---	Direction:	South
Date :	02.03.2023	Offset :	74 / 263	Species :	Eucalyptus
Time :	14:58:05	Avg. curve :	off / off	Location :	11, Dartmouth Road
Feed :	100 cm/min			Name :	Vinco Caïne



Assessment

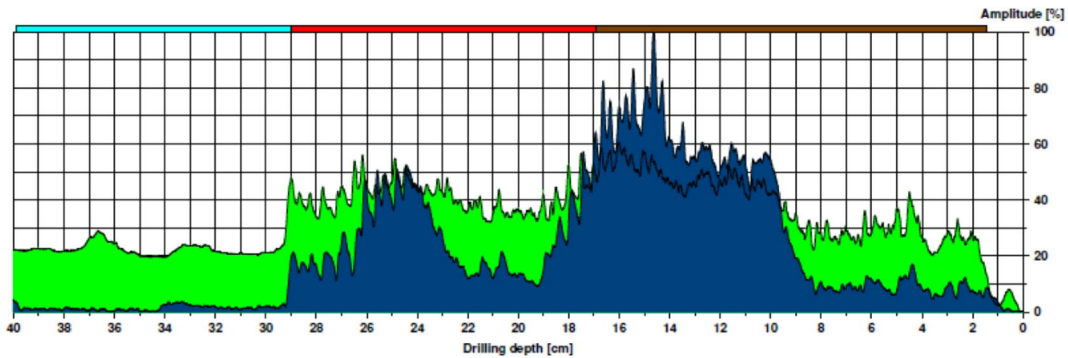
From 1,42 cm to 39,90 cm : Good Wood

Comment

11 Dartmouth Rd S50M034

Measuring / object data

Measurement no.:	27	Speed :	2500 r/min	Diameter:	81,00 cm
ID number :	11 Dartmouth Rd South 0	Needle state:	---	Level :	0
Drilling depth :	40,06 cm	Tilt :	---	Direction:	South
Date :	02.03.2023	Offset :	124 / 418	Species :	Eucalyptus
Time :	14:48:03	Avg. curve :	off / off	Location :	11, Dartmouth Road
Feed :	100 cm/min			Name :	Vinco Caïne



Assessment

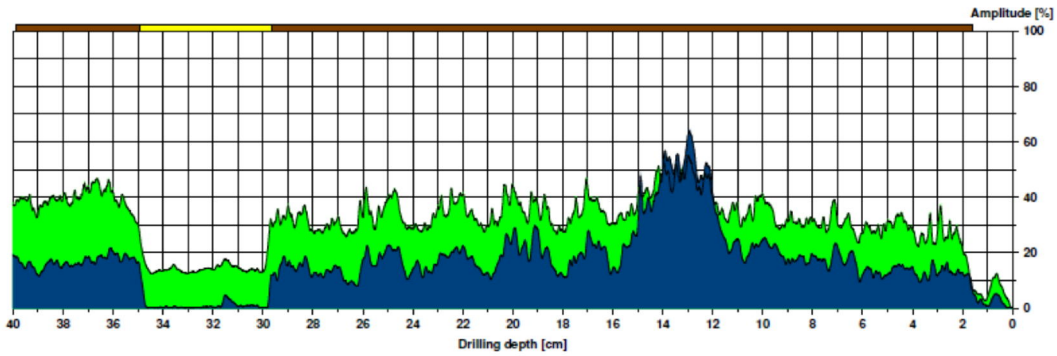
From 1,42 cm to 16,93 cm : Good Wood
From 16,93 cm to 28,98 cm : Decay
From 28,98 cm to 39,87 cm : Cavity

Comment

11 Dartmouth Rd South 0M027

Measuring / object data

Measurement no.:	30	Speed	: 2500 r/min	Diameter:	81,00 cm
ID number	: 11 Dartmouth Rd SW0	Needle state:	---	Level	: 0
Drilling depth	: 40,09 cm	Tilt	: ---	Direction:	Southwest
Date	: 02.03.2023	Offset	: 95 / 389	Species:	Eucalyptus
Time	: 14:51:56	Avg. curve	: off / off	Location:	11, Dartmouth Road
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

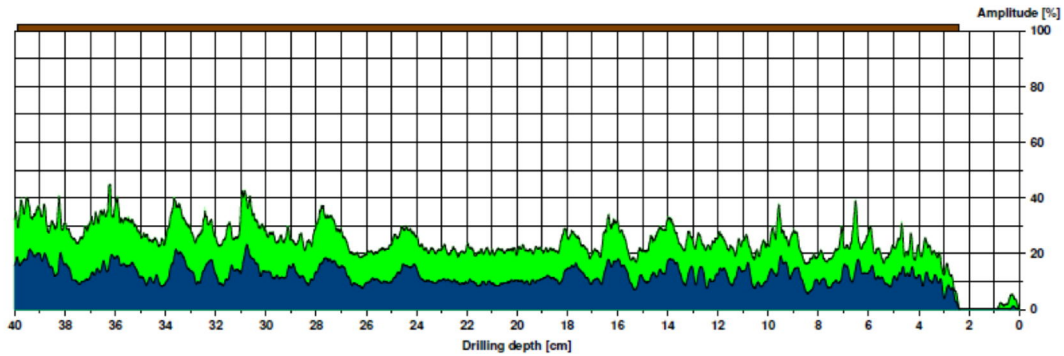
From	1,58 cm to	29,63 cm	: Good Wood
From	29,63 cm to	34,93 cm	: Crack
From	34,93 cm to	39,90 cm	: Good Wood

Comment

11 Dartmouth Rd SW0M030

Measuring / object data

Measurement no.:	32	Speed	: 2500 r/min	Diameter:	81,00 cm
ID number	: 11 Dartmouth Rd W50	Needle state:	---	Level	: 50
Drilling depth	: 40,08 cm	Tilt	: ---	Direction:	West
Date	: 02.03.2023	Offset	: 88 / 375	Species:	Eucalyptus
Time	: 14:55:34	Avg. curve	: off / off	Location:	11, Dartmouth Road
Feed	: 100 cm/min			Name	: Vince Cainey



Assessment

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

11 Dartmouth Rd W50M032

Conclusion.

The Resistograph tests show that there is some decay, cavities and cracking. There is also lots of good wood. Historically the tree has been pollarded, this reduces the affects of the wind on the crown. The tree is also in a sheltered position with taller buildings on all sides. With these considerations, it is unlikely that the structural integrity of the tree will be affected.

Recommendations:

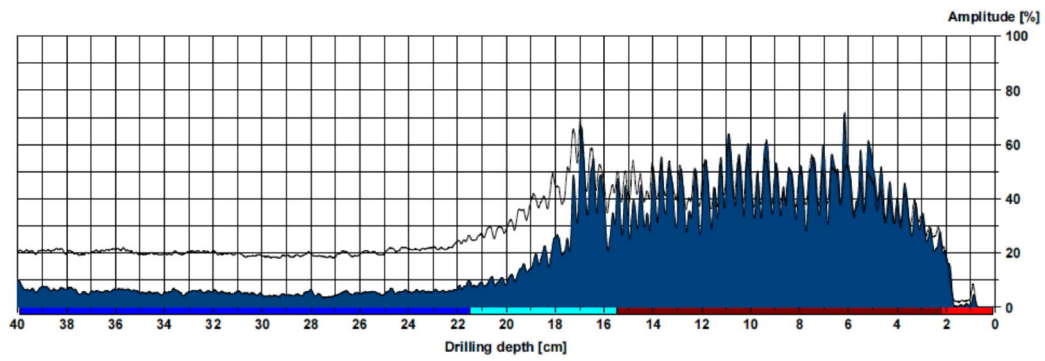
The tree should be re-pollarded and then again, every 3 years to maintain the crown size. This work should be carried out by a fully insured and qualified tree surgeon working to BS3998 (2010), Tree work. The tree should be re-inspected in 3 years or after an extreme weather event or if it shows signs of decline.



Vince Cainey BSc
21st March 2023.

Measuring / object data

Measurement no. : 4	Needle speed : 2500 r/min	Diameter : 59.0 cm
ID number : 10 BATHWICK S4M	Needle state : ---	Level : 400.0 cm
Drilling depth : 40.00 cm	Tilt : ---	Direction : South
Date : 22.07.2016	Offset : 79/276	Species : Weeping Ash
Time : 10:55:46	Avg. curve : off	Location : 10 Bathwick Hill
Feed speed : 150 cm/min		Name : Vince Caney



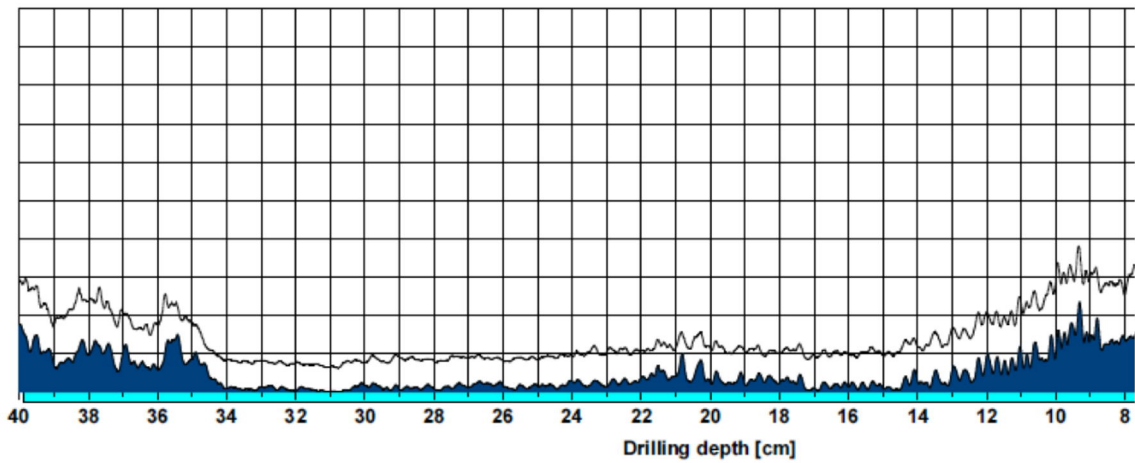
Assessment

From 0,1 cm to 2.2 cm : Bark
From 2.2 cm to 15.5 cm : Good wood
From 15,5 cm to 21.5 cm : Decay
From 21,5 cm to 39.9 cm : Cavity
From 0,0 cm to 0,0 cm :
From 0,0 cm to 0,0 cm :







Comment

Measuring / object data

Measurement no. :	3	Needle speed :	2500 r/min	Diameter :	59,0 cm
ID number :	10 BATHWICK E4M	Needle state :	—	Level :	400,0 cm
Drilling depth :	40,00 cm	Tilt :	—	Direction :	East
Date :	22.07.2016	Offset :	83/281	Species :	Weeping Ash
Time :	10:51:18	Avg. curve :	off	Location :	10 Bathwick Hill
Feed speed :	150 cm/min			Name :	Vince Cainey



Assessment

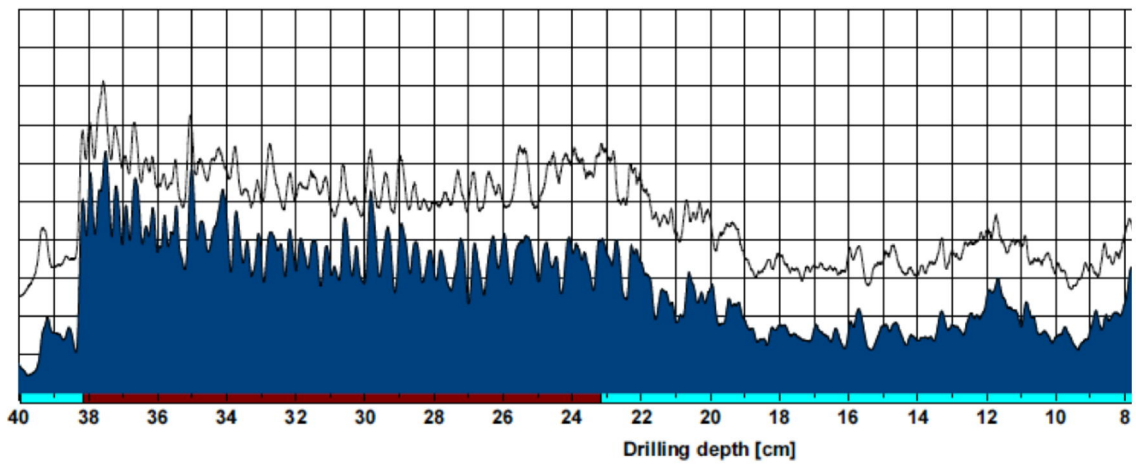
	From 0,1 cm to 2,8 cm : Bark
	From 2,8 cm to 5,5 cm : Good wood
	From 5,5 cm to 39,9 cm : Decay
	From 0,0 cm to 0,0 cm :
	From 0,0 cm to 0,0 cm :
	From 0,0 cm to 0,0 cm :

C



Measuring / object data

Measurement no. : 2	Needle speed : 2500 r/min	Diameter : 59,0 cm
ID number : 10 BATHWICK E5M	Needle state : —	Level : 500,0 cm
Drilling depth : 40,00 cm	Tilt : —	Direction : East
Date : 22.07.2016	Offset : 84/300	Species : Weeping Ash
Time : 10:49:14	Avg. curve : off	Location : 10 Bathwick Hill
Feed speed : 150 cm/min		Name : Vince Cainey



Assessment

	From 2,0 cm to 2,0 cm : Bark
	From 2,0 cm to 23,2 cm : Decay
	From 23,2 cm to 38,2 cm : Good wood
	From 38,2 cm to 39,9 cm : Decay
	From 0,0 cm to 0,0 cm :
	From 0,0 cm to 0,0 cm :

C