The Accuracy of Radar Imaging
Case Study

200 year old Valley Oak Tree January 6, 2014

Homeowner was concerned about the safety of the tree, its massive limbs stretched over both houses and it had some areas of decay.
Performing Trunk Imaging Scan #4
Photo below

Performing Lower Trunk Imaging Scan #1
Below the decking
The Results of all four scans

Scan #1
2.5ft from base of tree

Scan #2
Is from the cavity to the back side of the tree

Scan #3
Is from the cavity to the back side of the tree

Scan #4

Legend:
- Sound Wood
- Near-Surface Decay
- Advanced Decay
- Incipient (early-stage) Decay
- Surface Crack or Benign reflector (see Analyst Notes)

Note: Gaps in the plot indicate bumpy sections on the trunk where the antenna was not making good contact.
Alex Johnson - Valley Oak - 2.5ft Elevation - Dia. = 65in (1) - 9 Oct 13

Scan #1

Remaining solid wood

Circumference

Start 0 36 72 108 144 180 216 252 288 324 360 / 0 degrees
0 19 38 57 76 95 114 133 152 171 190 distance, in.

Analyst Notes: Appears to be advanced decay throughout the entire trunk at this elevation with an average remaining solid wood of approximately 7 inches.
Scan #4

Remaining solid wood

Circumference

Start  36  72  108  144  180  216  252  288  324  360 / 0 degrees
0  22  44  68  88  110  132  154  176  198  220 distance, in

Note: Gaps in the plot indicate bumpy sections on the trunk where the antenna was not making good contact.

Analyst Notes: Appears to be advanced decay throughout the entire sector at this elevation with an average remaining solid wood of approximately 7 inches. The gray area is where the antenna was over a depression.
Scan # 4
Averages 7 inches of solid wood around the trunk perimeter as predicted.