

Essex Energy Corporation - Resistograph Wood Inspection Service

Advantages

The advantages of the resistograph inspection are quite clear:

- Less invasive and gives more information
- Early detection of deterioration
- Detects wood decay, rot, hollow areas, and cracks
- Precisely records and quantifies wood health



Benefits

Here are some of the key benefits of the resistograph inspections:

- Cost savings with early detection of pole failure or deterioration
- Allows more effective budgeting and scheduling for pole replacement and preventative maintenance
- Objectively manages and monitors poles
- Maximizes service life of assets
- Minimizes risk of failure and hazards
- Improves system reliability
- Improves worker and public safety

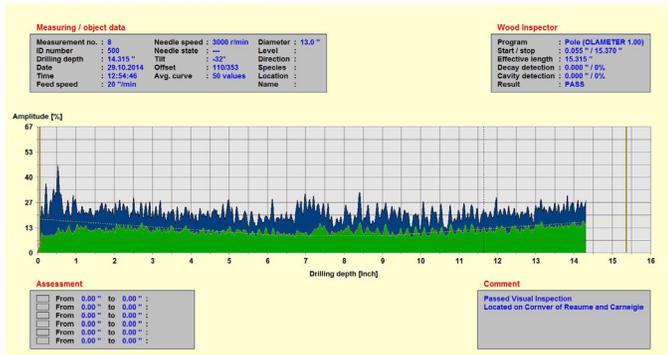


Displaying Inspection Results

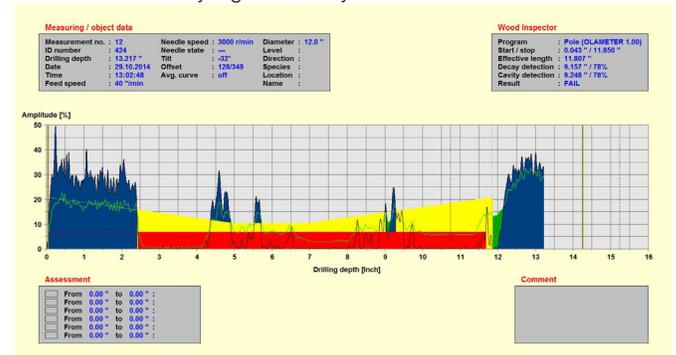
The results of a resistograph inspection are displayed and stored both graphically and numerically. This inspection method eliminates subjectivity and delivers an objective and verifiable measure of a tree or pole's condition.

Wood Inspector	
Program	: Pole (OLAMETER 1.00)
Start / stop	: 0,110 " / 16,224 "
Effective length	: 16,114 "
Decay detection	: 0,524 " / 3%
Cavity detection	: 0,000 " / 0%
Result	: PASS

Wood Pole in Good Condition

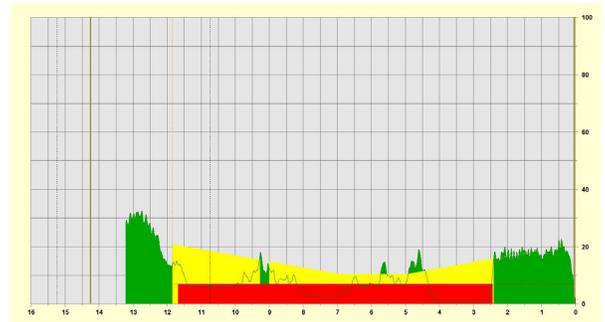


Wood Pole with Early Signs of Decay



Test Result

- The green area indicates a section of the pole that passes the decay and cavity tests
- The x-axis describes the needle depth into the pole
- The yellow area indicates a section of the pole that fails the decay test
- The red area indicates a section of the pole that fails the cavity test



Recording Results and Managing Data

In addition to graphical display of the results, findings are organized and delivered in an accessible format allowing the owner to view, analyze, and apply verifiable data. Organized data collection provides a safe, economical, and optimal platform for managing and monitoring assets.

IML North America Pole Import Spreadsheet

version 1.1

ID	Date	Diameter 1	Decay 1	Cavity 1	Result 1	Diameter 2	Decay 2	Cavity 2	Result 2	Total Result
522	29.10.2014	31.75	84	84	FAIL	31.75	82	82	FAIL	FAIL
13	29.10.2014	34.91	3	0	PASS	34.91	0	0	PASS	PASS
422	29.10.2014	31.75	78	78	FAIL	31.75	85	85	FAIL	FAIL
500	29.10.2014	33.02	0	0	PASS	33.02	0	0	PASS	PASS
510	29.10.2014	31.1	67	67	FAIL	31.1	60	60	FAIL	FAIL
424	29.10.2014	30.47	32	32	FAIL	30.47	78	78	FAIL	FAIL

Data Evaluation

The output of resistograph testing is a report which clearly indicates wood decay levels as a quantified value in a categorized list. This report provides an ideal basis for analysis and evaluation of wood decay indicating all assets that fail, pass, or marginally pass the resistograph test. The data of the report is delivered in a usable format allowing the owner to make maintenance and replacement arrangements of assets based on risk, priority, and level of decay.

Summary

Routine wood inspections help utilities remain well aware of the condition of their wood poles and trees. Most wood defects and damages are found internally in the form of decay and cavities. Resistograph wood testing offers a non-destructive method to assess the health and structural soundness of a wood pole or tree. Resistograph wood testing eliminates the need of excavating to assess the health of a pole or tree below ground level, as well as provide an exact measurement of the current condition. The resistograph measurement instrument is used to detect and locate internal deterioration, cracks, and cavities in utility poles, trees, and other wooden structures. The inspection indicates assets that fail, marginally fail, or pass the standard health requirements customized by industry or utility standards. Early detection of decay means poles and trees can be treated at an early stage or be monitored in closer detail to extend its useful life and appropriately adjust its maintenance or replacement schedule. Quantifiable measurement of wood health allows utilities to maximize the life time of their assets as well as optimize their preventative maintenance schedule to reduce costs and risks associated with structural failure.