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Wood Group Intetech has been active within the oil and gas industry for more than 20 years. We are renowned for our practical and user-friendly software packages, ECE, iWIT and iQRA. Our team of engineers deliver effective and reliable materials engineering, corrosion and integrity management throughout the asset lifecycle, from design, construction and commissioning, to operation, change of use and decommissioning.

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iQRA
Oilfield Reliability Information You Can Trust

iQRA
QUANTITATIVE | RELIABILITY | ASSESSMENT

MTTF Analysis

Mean Time To Failure Analysis

Reliability Survival Function
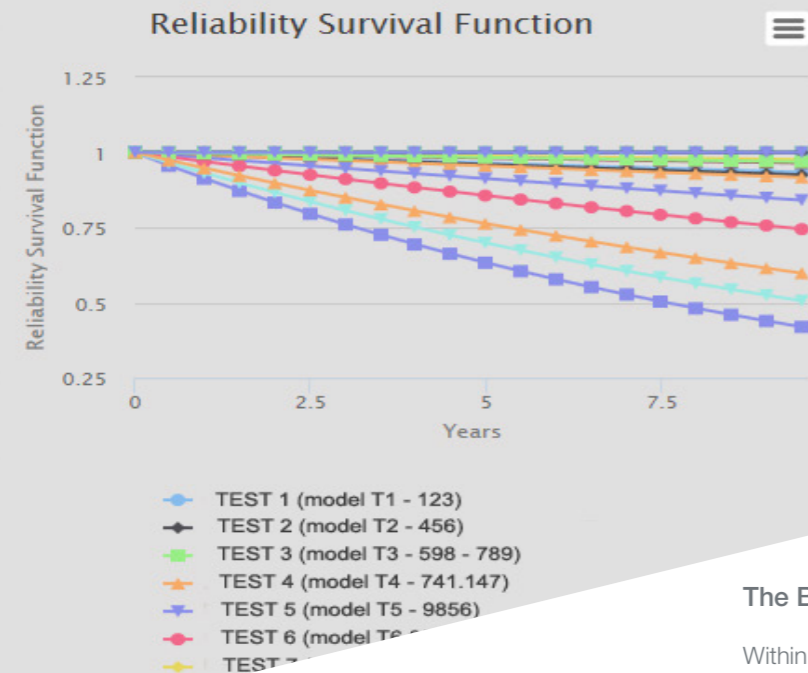
Manufacturer	Model	Failures	Confidence Limits		
			Lower (y)	MTTF (y)	Upper (y)
TEST 1	T1 - 123	136	54.6	54.8	54.9
TEST2	T2 - 456	0			
TEST 3	T3 - 598 - 789	13	400.1	401.9	403.4
TEST 4	T4 - 741 - 147	33	121.8		
TEST 5	T5 - 9856	2			
TEST 6	T6.852				

Legend:
- TEST 1 (model T1 - 123)
- TEST 2 (model T2 - 456)
- TEST 3 (model T3 - 598 - 789)
- TEST 4 (model T4 - 741.147)
- TEST 5 (model T5 - 9856)
- TEST 6 (model T6...)
- TEST 7

iQRA

Wood Group Intetech has applied its experience and deep domain knowledge to establish the largest database of well and oilfield component failure information in the industry. The users of the web-based iQRA subscription service will be able to:

• Benchmark reliability figures based on their own data against a global, statistically significant dataset

• Extract mean-time-to failure (MTTF) data for quantitative risk assessments and critical decision making

• Construct their own queries and generate information instantly, from anywhere.

The Benefits of iQRA

Within a few mouse clicks to select filter options, users will be able to:

• Identify the best performing components with the highest reliability
• Access mean time to failure data for individual components
• Benchmark the performance of individual components from their own organsation against industry average reliability figures.

This information is used to support a range of cost reduction decisions:

• Reduce well entries through the selection of best performing well components for new well designs or replacing equipment at workovers

• Establish optimum maintenance intervals based on MTTF figures – "performance-led maintenance"

• Reduce corrective maintenance by installing higher reliability equipment

• Justify plug and abandonment (P&A) decisions based on a quantitative analysis

• Quantify the relative underperformance of problem wells or oilfield components – how much is avoidable underperformance, how much is this costing my organization, and what can be done to improve it?

• Select options for workovers based on well quantitative risk assessments to evaluate the risk status of wells before and after the proposed workovers.

• Retain wells on a production/injection regime based on quantitative evaluation of well risk status.

How iQRA Works

iQRA is accessed online through a standard web browser. A robust infrastructure has been rigorously developed and tested to ensure the quality, standardization and anonymity of data. Processes and checks are also in place to ensure the neutrality of information, to safeguard against potential data bias. iQRA has been designed from the ground up as a flexible system to allow the incorporation of more data types as the library of information grows. Information is accessed through a simple and intuitive user interface that requires no training for use.
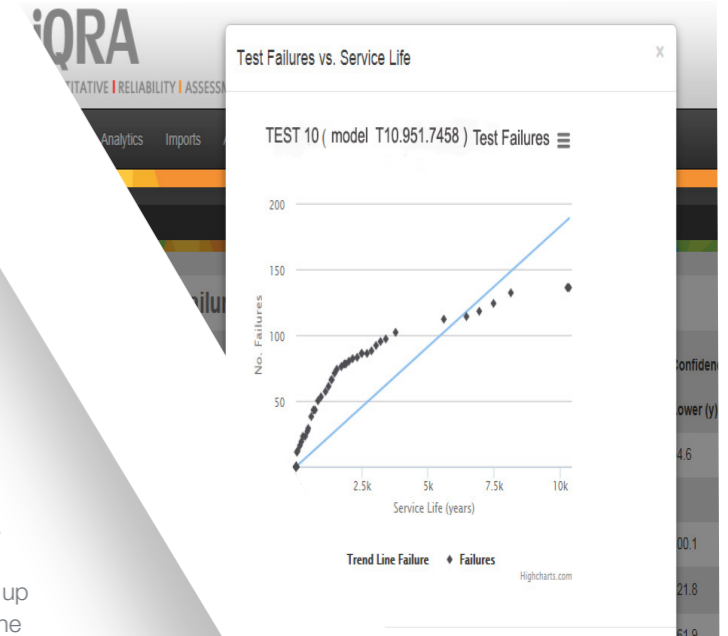
Data Loading
A simple data upload by spreadsheet is accessible to users. WG Intetech can provide data management services for data extraction, cleansing and QA prior to an upload to iQRA.

Quality Control
Data integrity is ensured as all reliability data submitted to the system is automatically passed through a QA workflow. This consists of:

1) An automated validation of submitted data

2) A preview capability for the submitter to check data for completeness and accuracy

3) An extensive QA review by a Wood Group Intetech expert who has the authority to add, remove or suspend any subset of new or historical data from calculations.

As iQRA evolves and the database expands, development will focus on extending the range of data loading options including the development of data system connectors and the provision of more granular filters. iQRA subscribers have the opportunity to influence future development through user group meetings.

Confidentiality and Security

We understand the importance of protecting your data to ensure that only appropriate information is shared with others. The sources of data used to generate information in iQRA will be kept strictly confidential. Sensitive data will be anonymised as part of the data upload and QA process. Well, field and operator identification information will be entirely absent from the iQRA database.

Access to the iQRA web interface and its functions are protected by user authentication employing password strength gates and a robust set of user roles and privileges. Communication with the iQRA database is fully encrypted to safeguard against unauthorised access.

Test Failures vs. Service Life

TEST 10 (model T10.951.7458) Test Failures

Trend Line Failures   ◆ Failures

Subscribing to iQRA

Contact iQRA@intetech.com for more details on how to join the iQRA community and access reliability information you can trust.