



The **Zeefax Total Rig Audit** avoids downtime and ensures rig systems remain operational and reliable. Many Drilling Companies will invest in a complete **Rig Audit** in the knowledge that it offers a comprehensive overview of the state of their rig; it can also then be submitted to 3rd parties for compliance to due diligence prior to any contract.

Comprehensive Rig Audit

What are these Audits required and useful for? These are some tangible benefits as to why you should consider a **Zeefax Total Rig Audit**.

Cost: drilling companies have maintenance systems in place but sometimes downtime starts creeping up or maintenance costs are rising. A rig audit give management a 3rd Party independent view of how their asset is being run. The outcomes of the audit can lead to beneficial upgrades to the maintenance system and the daily operations.

Safety: with the oil industry being an everchanging and evolving industry, it is prudent to have a 3rd party verify that your safety standards are indeed as good as they are being reported. A 3rd party inspection verifies that the drilling companies ongoing outlay in safety is being well implemented and increases the value to the client.

Reactivation: if a rig has been stacked, a rig audit will give a breakdown of equipment requirements to allow a safe and fully compliant start up. A methodical system inspection followed by a breakdown of class and industry requirements will be the fundamental base document for generating a work scope, WBS and costing. This audit will save a huge amount of money at the back end of a project.

Documentation Compilation: if a rig has been in the field for several years then various personnel offshore have their own department's responsibilities to maintain class and industry standards. Over the years with personnel changes, this information is usually misplaced and inaccurate. The 3rd party inspection requires that all personnel present the documentation to the audit team. This compilation gives the drilling contractor a detailed dossier of their rig certification all in one place. A snapshot of their rig status that the rig management can have kept up to date moving forward. Missed certification is often caught on these audits as regulation updates are missed that could have costly consequences.

Insurance: a 3rd party audit is often used in rig insurance to verify the rig is exactly what the insurance company is being advised.

How long does a typical Rig Audit take?

Zeefax offers a very comprehensive Rig Audit and in order to offer that quality, our audits will normally take 10 days with 2 personnel on the rig. An additional 4-5 days will be needed in the office for compilation and detailed reporting.

Please let us know if you are interested in getting a proposal for a Rig Audit. Special rates will apply if Audits are carried out on several rigs in your fleet.

The following pages gives you a list of items that are covered in a typical Rig Audit.



Typical Scope of Work

A comprehensive Rig Audit would include the following:

<u>Section 1: Drilling Equipment</u>	<u>Section 2: Marine Equipment</u>
Hoisting Equipment <ul style="list-style-type: none">• Derrick & Substructure• Drawworks• Crown Block• Travelling Block & Hook• Auxiliary Brake• Deadline Anchor	Class & Flag Status <ul style="list-style-type: none">• Full vessel certification verification
Rotary Drilling Equipment <ul style="list-style-type: none">• Top Drive System• Rotary Table• Swivel	Stability and Positioning <ul style="list-style-type: none">• VMS & Propulsion• Ballast and preload System• Bilge System• Jacking System• Anchor Windlass/Mooring System
Pipe-Handling Equipment <ul style="list-style-type: none">• Iron Roughneck• Pipe-Spinning Wrench• Manual Tongs• Slips, Collars, Elevators• Ezy Torque Unit	Deck Equipment/Structure <ul style="list-style-type: none">• Overflows and Vents• Navigation Equipment (Lights, Foghorns)• Watertight Integrity (Doors and Hatches)
Drilling Tools <ul style="list-style-type: none">• Drill String• Drilling Subs• Fishing Tools	Communications <ul style="list-style-type: none">• Communication Equipment
Auxiliary Equipment <ul style="list-style-type: none">• Well Testing Equipment• Casing Stabbing Board• Tuggers, Sheaves and Man-Riding Winches• Wireline Unit	General Marine Operation <ul style="list-style-type: none">• Wash-down System• Water Makers• Water Filtration• Sewage Unit• MGPS• Oily Water Separator (OWS)• Vessel PRV Register & Certs• Vessel Gauge Register & Certs• Vessel Hose Register & Certs• Vessel Pad Eye Register & latest NDT• Vessel Lifting and Handling Gear Register & latest inspection• Wire Rope Register & Certs



Section 3: BOP Equipment

BOP Equipment

- Full system certification verification
- Ram-Type BOP
- Annular-Type Preventers
- Gate Valves

Control System

- Hydraulic BOP Control Unit
- Remote BOP Control System

Manifold/Hoses/Pipework

- Choke and Kill Manifold
- Flexible High Pressure Hoses

Diverter System

- Diverter System

BOP Handling System

- BOP Hoisting System

Section 4: Mud System

Mud Pumps

- No.1 Main Mud Pump
- No.2 Main Mud Pump
- No.2 Main Mud Pump
- Centrifugal Pumps

Mud Cleaning System

- Degasser, Desilter & Desander
- Shale Shaker

Mud Mixing and Storage System

- Mud Agitators
- Mud Preparation System
- Bulk Air System, Tanks and Hoppers
- Cement Unit (Third Party)
- Drill Water System
- PVT System

Manifolds/Hoses/Pipework

- Standpipe Manifold and Rotary Hoses
- LP/HP Pipework

Section 5: Power Plant

Engines

- Main Engines
- Emergency Generator
- Third Party Auxiliary Engines

Auxiliary Machinery

- Air Compressors/Receivers
- HVAC (Heating Ventilation Air-Conditioning)
- Saltwater Service System
- Deck Cranes
- Fuel Oil Transfer/Storage
- Pipework & Piping Systems

Rig Hydraulic Systems

- Drilling Equipment HPU
- Skidding Hydraulic Systems
- Rig General HPU

Section 6: Preventive Maintenance System

PMS

- Maintenance Network
- Maintenance recording System
- Equipment History Files/Records
- Overview of rig stores and operational spares



Section 7: Safety

Fire & Gas Detection

- Automatic Fire Detection System
- Flammable Gas Detection System
- H2S Gas Detection System
- Fire Suppression (CO₂/Halon)

Fire Fighting Equipment

- Fixed Fire-Extinguishing Systems
- Portable Fire Extinguishers
- Breathing Apparatus

Emergency Systems

- First Aid and Sickbay Facilities
- Emergency Procedures (Including review of manuals)
- Fire Control Plan
- Emergency Fuel Oil Shut Off

Life Saving Equipment

- Lifeboats and Davits
- Life Rafts and Davits
- Fast Rescue Craft

General Safety

- Decks, Walkways & Ladders
- Accommodation
- Pollution Control and Containment
- Housekeeping
- Permit to Work System
- Drilling Safety System
- COSHH
- Personnel Training Matrix

Helideck Equipment

- Heli-Deck Foam System
- Helideck & Helicopter Operations

Section 8: Electrical

Power Distribution

- Main Generators and Controls
- Main Transformers
- SCR/VFD System
- Main Switchboards
- Distribution Panels

Motors and Motor Control

- AC/DC Drilling Motors
- AC Motors
- Motor Control Centres

Lighting Systems

- Lighting System (Main)
- Lighting System (Emergency)
- Portable Lighting

Emergency/Backup Systems

- Batteries, Chargers and UPS

Rig Communication Systems

- Telephone and PA System

Auxiliary Electrical Equipment

- Electrical Outlets/Enclosures
- Cables/Cable Supports
- Earth Protection and Earth Bonding
- Electrical Welding Equipment
- Instrumentation
- Explosion Proof Equipment

Electrical Training

- Electrical Training Courses

Email us on support@zeefax.com if you need further information