



Performance Through Partnership

**Is your company getting
the hydrocarbons it is entitled to?**

High performance. Delivered.

– Experiences from recent JV audits

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NFOGM
NORWEGIAN SOCIETY FOR
OIL AND GAS MEASUREMENT

**Hydrocarbon Management Workshop - Field
Allocation**



Joint Venture Measurement and Allocation audits

What

- Measurement and sampling
- Allocation, value adjustment and lift accounting

When

- Annual audit program
- Two previous years

How

032 - NORWEGIAN OIL AND GAS
RECOMMENDED GUIDELINES
NORWAY JOINT VENTURE AUDIT

Guidelines established by Norwegian Oil and Gas Association's
Referansegruppe Økonomi to govern audits
of Joint Ventures / Joint Interest
on the Norwegian Continental Shelf

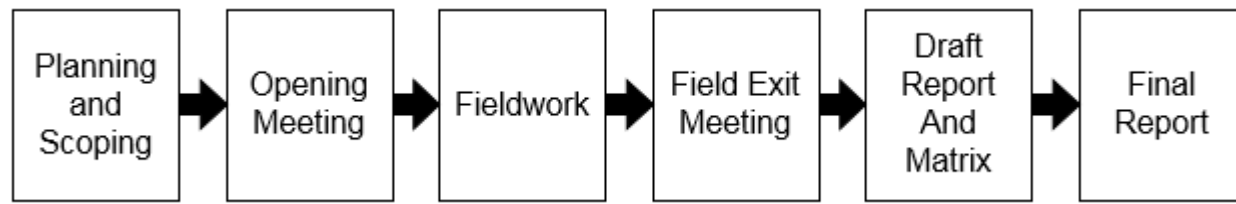


Why

- Audit rights in JOA/Unit agreement
- Verification that applicable standards, agreements and industry practices are followed

Who

- Audit Lead
- Audit team
- Audit Coordinator
- Participation



Audit findings

Audit Exceptions

Significant error or violation to applicable agreements, legislation and/or industry practices.

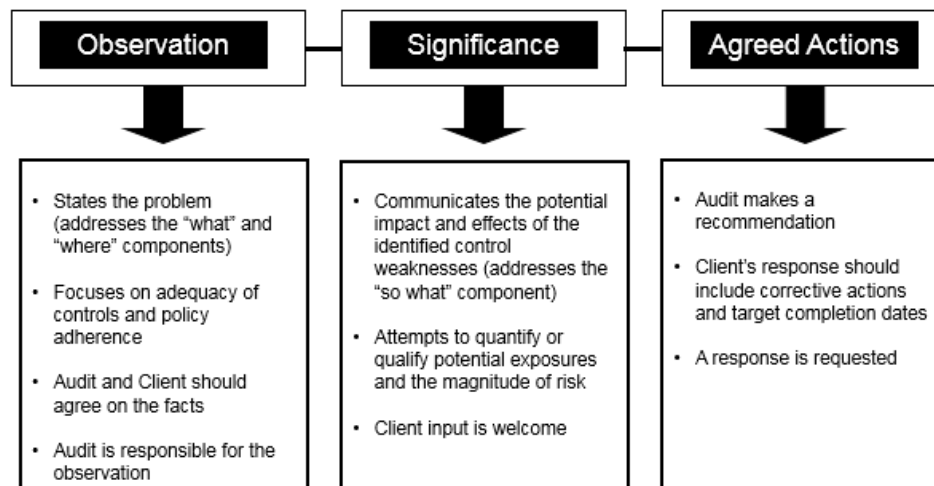
Formal close-out process.

Must be addressed by Operator.

Audit Recommendations

Findings during audit that under other circumstance could have led to error or violation to applicable agreements, legislation and/or industry practices.

No close-out process, up to operator

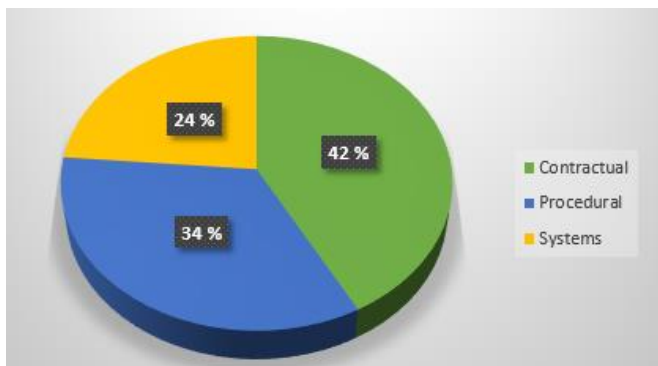


Recent audits experiences

Audit Exceptions

Allocation only:

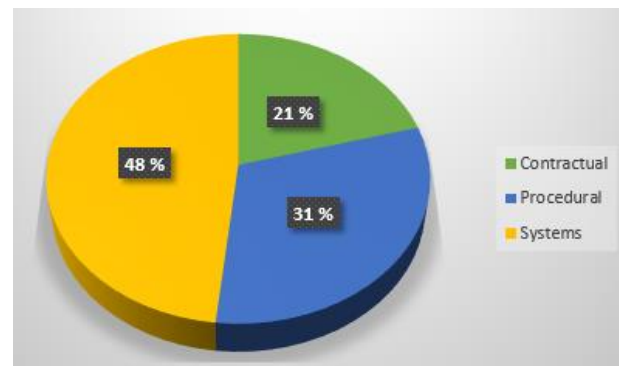
- 7 Audits
- 38 Audit exception



Audit Recommendations

Allocation only:

- 7 Audits
- 29 Audit recommendations

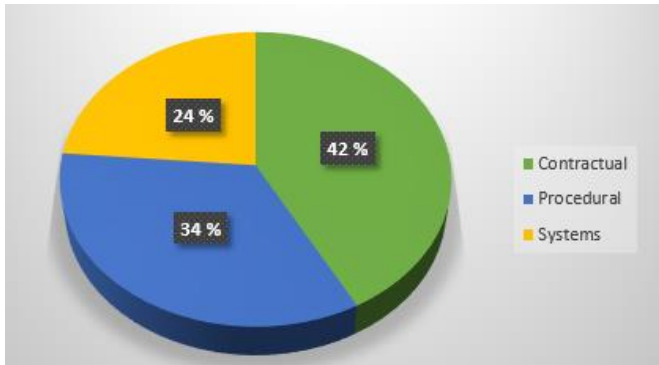


Recent audits experiences – Some reflections (1)

AE avoidance: Contractual

Allocation only:

- 7 Audits
- 16 Audit exception



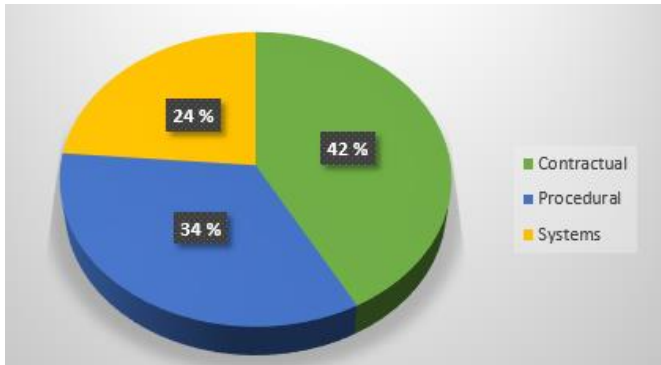
- ☐ Contract appendix to define allocation procedure in detail. To the extent possible, removing room for interpretation.
- ☐ Contract appendix to reflect specifics of each operation, avoid inappropriate “copy-paste” from other agreements.
- ☐ Operator to seek formal approval from license in case of deliberate deviation from contract appendix.
- ☐ Allocation procedure implementation to reflect contract appendix as close as possible.
- ☐ Operator to provide transparency and detailed reporting enabling non-operators to verify allocation results.

Recent audits experiences – Some reflections (2)

AE avoidance: Procedural

Allocation only:

- 7 Audits
- 13 Audit exception



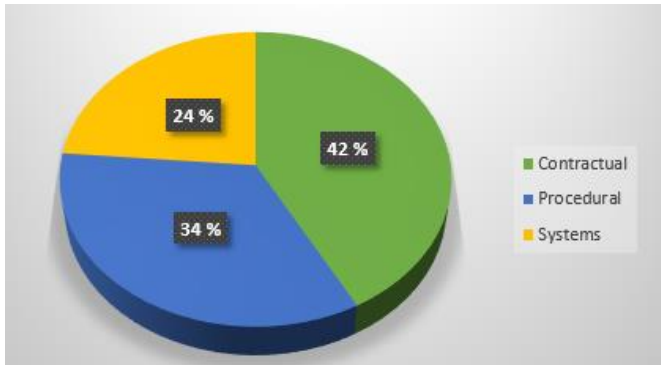
- ☐ Must be clear management accountability for the implementation and execution of the JV agreements.
- ☐ Must implement adequate quality assurance / internal control system for the hydrocarbon accounting processes.
- ☐ Must develop hydrocarbon skills development program
- ☐ Must implement formal monthly close-out processes, with proper handling of any later retrospective reallocation.
- ☐ Should seek to reduce manual routine data entry tasks and remove reliance on spreadsheet-heavy routines.
- ☐ Should implement mass balance controls and other controls to verify allocation results.

Recent audits experiences – Some reflections (3)

AE avoidance: Systems

Allocation only:

- **7 Audits**
- **9 Audit exception**



- ☐ Should consolidate as much as possible in one integrated hydrocarbon accounting system. Avoid duplication of data.
- ☐ Should eliminate manual data entry between systems / spreadsheets etc. If not feasible, additional controls should be in place to avoid erroneous data entry.
- ☐ Must enforce segregation of duty.
- ☐ Must provide adequate documentation of the implementation of the accounting procedure.
- ☐ Must support business rule modelling
- ☐ Must provide data locking capability / retrospective change control support
- ☐ Must offer business process modelling.

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hydrocarbons it is entitled to?**