Audit of Well Expertise

Summary report

Stavanger, 19.03.2019

Rev. no.	Date:	Description	Prepared	Verified	PUN approve
1.0	19.03.2019	Final	Jan Tarek Østebø Nakhleh	Sveinung Ferland Reidar Haland	Nils H. Lileløkken
2.0					

Contents

1 Introduction

1.1 Purpose of the report

The report of the work done describes findings, observations and improvements during the Audit and follow up through to closure.

Reference to PGNiG document PUI-HS-GOV-236-61 "Audit Execution"

PGNiG performed this audit with reference to Framework Regulation, section 5 – the "see to it duty", section 13 on the duty to establish management systems and section 14 on follow up of participants.

The Guidelines to Framework Regulation, section 5 states that:

> In order to perform his duties the licensee must have information about the activities in question. The licensee shall not merely take a view on the material he is presented by the operator, but has an independent duty to satisfy himself that he has sufficient information about the activities. The licensee has a duty to take action in regard to conditions that are not in conformity with the rules. The licensee must also see to it that the operator performs his tasks in connection with audits. The licensee must in particular see to it that the operator performs his tasks in connection with central, important aspects. This applies, inter alia, to the operator's management system, that the operator has an organisation that is properly qualified and has sufficient capacity

1.2 Scope of the project

The overall objective is to fully verify that Well Expertise well management contractor (post contract award) have the capability and capacity as per the ITT bidder requirements.

Write a brief audit report of the work done with findings, observations and improvements and ensure follow up through to closure. Reference to PGNiG document PUI-HS-GOV-236-61 "Audit Execution"

The purpose of the audit is to assess the risk management in the drilling preparation process for managing major accident risk and how planning for efficient drilling operations is carried out. The objective is to verify that the WE complies with its own management system and the HSE petroleum regulations in Norway. Finally, to assure that WE is sufficiently prepared to provide PGNiG Upstream Norway with well management for a start of the drilling operations in PL838 during Q4 2019.

With reference to the promises made in the WE tender submission document, verify existence and check quality of:

- Organization & Lines of command, Roles and responsibilities
  Teamwork, safety leadership and especially involvement of all relevant expertise in developing the Drilling Operations Plan.
- Well delivery plan including in operations
- Manning plan throughout the well delivery process
  - Describe support from other in house project support resources
  - Describe how interphases work with during the a) planning phase and b) during operation
  - Follow-up planning and monitoring
  - Operational capacity , Competence & resource planning
  - Proactive problem solving during D&W operations

- Procurement Strategy, contracts and cost control
  - ITT and selection process of subcontractors, evaluation and selection process
  - Insurances and Liability and Indemnity regime in contracts
  - KPI`s in contracts
  - Rate adjustment principles (for long term contracts)
  - Assignment of contracts
  - Verification of subcontractors invoices and Invoicing routines
  - Explain / demonstrate cost tracking process
  - "Means / tools" used and interactions with Operator and sub-contractors

- HSE & Management System Procedures in particular:
    - HSE plans
    - Regulatory compliance
    - Risk identification and mitigation
    - Barrier management/well control
    - Emergency Preparedness (EP) organization and setup
    - Well control incident plan & well control procedures
    - Reporting
    - Management of contractors
    - Logistics
    - Drilling rig intake and preparations

1.1 External Regulatory references

Important references to the regulatory framework (HSE Framework Regulation) in Norway are listed in Table 1.

Table 1 References to HSE Framework Regulation

Regulation	Section	Comment
HSE Frame Regulation	Section 5 - Responsibility according to these regulations	The operator and others participating in the petroleum activities are responsible according to these regulations and regulations issued pursuant to these regulations. The party responsible shall ensure that requirements specified by the legislation relating to health, environment and safety are complied with. "Other parties participating" means all parties who participate in the petroleum activities without being licensees or operators. The operator shall see to it that everyone carrying out work for him, either personally, by staff, contractors or sub-contractors, complies with requirements contained in the health, environment and safety legislation.
	Section 10 – Organization and competence	The party responsible shall ensure that everyone carrying out work for him in petroleum activities, have the competence required to carry out such work in a safe and prudent manner.
	Section 13 - Duty to establish, follow up and further develop a management system	The party responsible (party responsible is the obligated party, i.e. the operator and others participating in the petroleum activities without being licensees or operators. This is a change in relation to previous management system regulations in which the licensee is the obligated party) shall establish, follow up and further develop a management system in order to ensure compliance with requirements contained in the legislation relating to health, environment and safety.
	Section 14 – Qualification of participants	In the event of entering into a contract, the party responsible shall ensure that the contractors and suppliers are qualified to fulfil the requirements of rules and regulations relating to health, environment and safety, and shall follow up that the participants comply with the requirements during conduct of the work assigned in the petroleum activities. The operator shall ensure that possible shortcomings in other participants' management of health, environment and safety are corrected and that necessary adaptive measures are taken with respect to one's own and other participants' management systems that are established according to these regulations Section 13 on duty to establish, follow up and further develop a management system or according to other Norwegian legislation, in order to ensure the necessary wholeness
	Section 15 - Verification	The party responsible shall decide on the extent of verifications, the method to be used in and the degree of independence of the verification in order to document that the requirements of the legislation relating to health, environment and safety have been met. When it has been decided that verifications are to be carried out, such verifications shall be carried out according to an overall and unambiguous verification program and verification basis. The operator shall establish the verification basis for the total petroleum activities after having made an evaluation of the extent of, the method to be used in and the degree of independence of the verification. The operator shall also carry out an overall evaluation of the results of verifications that have been carried out.

2 Summary and recommendations

2.1 Summary

Based on review of previous Audits done by DEA, Wellesley and Faroe, PGNiG has focused the Audit on separate main elements 3, 5, 7, 8 and 9 (marked in yellow in table below).

PGNiG conducted interviews with relevant WE staff to verify the companies implementation.

HSE - Norsok S-WA-006N «HMS evaluering av leverandører»

Elementer i HMS-styringssystemet omhandler	
1. Forpliktelse og ansvar	Klare forpliktelser fra toppledelsen og nedover i organisasjonen, og en selskapskultur som er nødvendig for at systemet skal fungere tilfredsstillende.
2. Policy, standarder og mål for HMS	Bedriftens intensjoner, handlingsprinsipper og ambisjoner med hensyn til helse, miljø og sikkerhet.
3. Organisasjon, ressurser og kompetanse	Organisering av mennesker, ressurser og dokumentasjon for å oppnå gode HMS-resultater.
4. Interessenter og kunder	Etablerte prosesser for å ivareta ulike interesseparters ønsker og behov.
5. Risikovurdering og -styring	Identifikasjon og evaluering av risiko i forbindelse med aktiviteter, produkter og tjenester, og utarbeidelse av risikoreduserende tiltak.
6. Anleggsutforming og –integritet	Hvordan styres anlegg, bygninger og utstyr basert på behov for sikring, driftssikkerhet og integritet
7. Planer og prosedyrer	Planlegging av hvordan arbeidsoppgavene skal utføres, også ved endringer og i beredskapssituasjoner.
8. Utføring av aktiviteter	Utførelse og oppfølging av aktiviteter, og hvordan korrigerende tiltak bør iverksettes ved behov.
9. Overvåking, rapportering og læring	Måling av styringssystemet effektivitet, resultatforbedring og læring av uønskede hendelser.
10. Sikring, gjennomgang og forbedring	Regelmessig vurdering av systemets funksjonalitet, effektivitet og grunnleggende egnethet.

2.2 Audit Findings & Observations

Findings are categorized as:

- Non Conformance (NC)
- Observation (O)
- Improvement Suggestion (IMP)

Non conformances are classified as:

- Major (MA)
- Significant (S)
- Minor (M

Identified non-conformances, observations and improvement suggestions are presented in the tables below.

Table 1 Non Conformances

NC No.	Description	Ref.	Responsible	Classification
	HSEQ: None			
	Drilling: None			
	Logistics: None			
	Procurement: None			
	Marine: None			

Table 2 Observations & improvement proposal done by PGNIG

Obs. No.	Description	WE Action Responsible
1	**Organization:** General - Last year was challenging for WE with two simultaneous drilling operations together with planning of other wells. It was manageable and demanding for the staff. The organization has grown since that. **Capacity of organization:** The current order reserve in the bid submission is only listed with PGNiG. This is most likely not realistic. WE has contracts with Faroe and Wellesley. Both companies will most likely hire Well Management planning for drilling exploration wells late this year and next year 2020. It is important that WE set up their organization to handle this with regards to resources. It is also important that WE inform PGNiG about resource capacity in case of any conflicting work priorities with any other customer. **Second in command:** If any conflicting work, or if any leader positions are not available due to illness or other causes, the staff must know who will be in charge. This is not clearly stated in the organigram or governing documents. If WE at any time lack the required resources, then they must be notify PGNiG, and make sure a back to back resource is made available. **Competence:** The company has covered all disciplines for well management and has a high average level of experienced personnel with competence according to competence matrix and requirements. However, when interviewing, it seemed to be a lack of competence development plan and matrix, especially for new staff. Do WE ensure that their staff acquire the desired competence in time to meet with WE capacity needs? **Improvement:** The organization should be set up with up with a back to back function for critical positions and the staff be informed who their back up resources are. Second in command - in case any leaders (Drilling Superintended) are not available then this must be addressed in an organization chart and notify PGNIG prior to operation start-up.	Mike Simpson Stig Seland Silje Gjøse

2	**Risk Management:** Technical procedures & processes in place. Comprehensive processes and procedures in place. Personnel are trained in every subject & discipline to act according to "ALARP" principle. Well control – Emergency preparedness & WIT team was described very well. However, will the yearly planned exercise for the WIT team be enough for them to feel comfortable and familiar with their role? When the WIT team on a yearly basis take part in other kind of emergency exercises, this requirement could be documented as competence for the WIT team. This should also apply to any possible back-up personnel. Exceed personnel capacity could be described in more detail. WE must provide PGNiG more information during the planning process regarding securing resources.	Mike Simpson Silje Gjøse
3	**Rig intake & Drilling:** Technical procedures & processes in place. The lesson learned system "WELL" was referred to during all the interviews. Well Expertise should share access to this system for Lesson learned with PGNiG. **DOP/RAP process and "Management of change"** The answers during the interviews of the staff differed, practical use of "Managing Risk associated with Changes and planned Deviations" and MOC principle should be refreshed in organization prior to operation. The technical procedures and requirements for how carry out well time estimates to be developed during the well planning process have not been established, but were explained. PGNiG require the basis and assumptions for well cost estimates to be described for own and License budgets. This procedure should be developed to ensure better quality follow up and continuity in a well project.	Mike Simpson Stig Seland

4	**Logistics:** General - There are comprehensive processes and procedures with an experienced Logistics Manager responsible for the execution of the service. The Logistics Manager reports to CEO, and in CEO absence the COO (Stig Seland) is second in command. This was recognized, but not clearly stated in the organigram or governing documents. It was observed that the Logistics Manager is the one and only responsible for numerus critical services, vessels, communication with rig contractor and service providers, supply base, manifesting, helicopter and other transportations; although supported by engineers when required. A positive observation was that WE informed us of plans for hiring a new employee within Q3 this year. **Improvement:** Logistics: a) Make clear to the wider company organization that Stig Seland is the second in command in CEO`s absence. b) We recommend to strengthen the Logistics role with additional resources. CEO confirmed that the next employment within the company will within Logistics (Q2/Q3-19).	Mike Simpson Raymond Sandve
5	**Procurement and Contracting:** General – We found well documented procedures in place for the SCM process (bidding, evaluation and selection, contract and contract follow up). Relevant KPI`s were in place for the drilling operation and invoicing, but no KPI for cost monitoring of drilling projects. **Improvement:** Procurement: We recommend WE introduce a KPI for cost monitoring to control budget overruns.	Mike Simpson Elisa Dickinson
6	**Marine:** We found technical procedures & processes in place. An experienced Marine Manager is in the lead of the operations; supported by a deputy (Stian Engvik) and the Marstein Group when required.	Mike Simpson Rune Smenes

The reported non-conformances, observations and improvement proposals should be followed up as soon as possible. All relevant actions and/or mitigating measures should be identified (including action owner and due date) within 30 days after receive of report.

3 Execution of the Audit

3.1 Agenda:

08:30 Presentation of participants, PGNIG and WE.
08:40 Start up session by PGNIG
09:00 – 11:00 Presentation regarding the items in notification by WE (Silje, Mike, Jan Tarek, Reidar, Sveinung)
11:00 – 11:30 Lunch
11:30 – 12:45 Interviews with WE staff by PGNIG (3 rooms needed)

- Interview with HSEQ Coordinator (Sveinung & Jan Tarek) 11:30-11:45
- Interview with Environmental Coordinator (Sveinung & Jan Tarek) 11:45 – 12:00
- Interview with Logistic Manager (Reidar) 11:30-11:45
- Interview with Contract & Procurement (Reidar) 11:45 – 12:00
- Interview with Rig Intake Leader (Jan Tarek & Sveinung) 12:15 – 12:30
- Interview with Sr Drilling Engineer (Jan Tarek & Reidar) 12:30 – 12:45
- Interview with Drilling Engineer (Sveinung) 12:30-12:45
- Interview with Drilling Engineer (Jan Tarek & Sveinung) 12:45-13:00
- Interview with Marine Manager (Reidar & Jan Tarek) 13:00 – 13:15

13:15-13:30 Break
13:30 – 14:30 Summary by the Audit team (Jan Tarek, Reidar, Sveinung)
14.30 – 15:00 Close out meeting (Silje, Mike, Jan Tarek, Reidar, Sveinung)

3.1.1 Participants on the Audit:

PGNIG Audit team:
Audit leader: Jan Tarek Østebø Nakhleh – Sr. Drilling Engineer
Auditors:
Sveinung Førland – HSEQ Advisor
Reidar Håland - Procurement and Contracting Specialist

Partner Aker BP (Observator)

Terje Andre Pedersen – Aker BP
Per Ivar Hansen - Aker BP

Well Expertise:
Mike Simpson – CEO/Operations Manager
Stig Seland – COO/Business Development Manager
Silje Gjøse – QHSE Manager
Karen Pedersen - Senior QHSE Advisor
Anniken Meisler – Environmental Manager
Elisa Dickinson – Contracts Manager
Raymond Sandve – Logistics Coordinator
Øystein Prytz – Lead drilling Engineer
Jenny K. Mazarino – Environmental Advisor
Rune Smenes – Marine Manager.

3.2 References

HSE - Norsok S-WA-006N «HMS evaluering av leverandører»

Verification of WE documents adopted to Shrek project

PUI-HS-FOR-236-168 PUN 2019 Audit and Verification Register (findings follow-up)

PUI-DR-PRO-236-166: Exploration Drilling Project - Contractor verification plan and audit protocol

PUI-HS-GOV-236-60 Audits, Reviews and Verifications

PUI-HS-GOV-236-61 Audit execution

PGNIG Audits, Reviews and Inspection Procedure,

Shrek Project and Interface Management Manual

Bid Submission – Enquiry reference 10303

Contract between PGNIG & Well Expertise

Well Expertise Presentation 18.03.2019

Well Expertise Steering Documents:

- WE-M-CS-P-01 How WE Contract and Manage Suppliers
- WE-M-FIN-MA-03 How WE Manage Well Procurement and Cost Control
- WE-M-LM-MA-02 How WE Manage Logistics
- WE-M-LM-P-01 Marine Operations
- WE-M-PDP-MA-01 How WE Resource Projects
- WE-M-PDP-P-01 How WE Operate
- WE-M-PDP-P-01 How WE Well Design
- WE-M-PDP-P-01 How WE Well Test
- WE-M-QHSE-P-01 How WE Manage Risk
- WE-M-QHSE-P-02 How WE Manage Chemicals in Well Projects
- WE-S-PDP-MA-02 How WE Supervise Offshore