

CHEVRON NIGERIA LIMITED

A Chevron Company

Operator of the NNPC/Chevron Joint Venture

Tender Opportunity

Provision of World Class and Fully Integrated Reservoir Studies (OFFSHORE)

NipeX Nos.: 0300295 and 0300296

(1) Introduction,

Chevron Nigeria Limited invites interested and qualified companies for this tender opportunity for the Provision of World Class and Fully integrated Reservoir Studies offshore. The proposed contract term is 2 (two) years with an option of 1 (one) year extension.

(2) Scope of Work:

Studies will typically consist of one of the following three types (Type and number of studies will be determined at commercial stage):

- Type One; Green field (No production), few wells(≤ 10 typically),
- Type Two: Brown field- up to 10 years of production, typically 10 to 20 wells.
- Type Three; Mature brown field; More than 10 years of production, typically 20+ wells.

Scope of work has two main high level components that requires proper interaction and integration;

Earth modeling (Apply to study types 1, 2 and3):

- Data management and transfer
- Detail data analysis and equality assurance and control
- Build fit for purpose initial model using appropriate geostatistical techniques
- Resolve a seals at which the model should be generated with a reservoir simulation engineer and guided by the appropriate ES&RS Mentor.
- Quick iteration and cycle thru between static model and history matching
- Define key uncertainty ranges and automated workflow for HCIP uncertainty assessment
- Provide a range of final static models that capture the right level of connectivity and HCIP ranges for probabilistic simulation
- Jointly with reservoir simulation engineer and ES&RS Mentor get a final buy-in from the

Asset Team.

Reservoir simulation;

For all study types (1, 2 and 3):

- Participate in creating a record of available and used input data (MDT/RFT, PVT,) with the appropriate Asset Team guided by the ES&RS Mentor and get it signed off by the Asset Team.

Provide preliminary dynamic data validation with Asset Team guided by the ES&RS Mentor and get it signed off by the Asset Team. Run a series of mid case models at multiple scales provided by the earth scientist. Determine optimum scale guided by the ES&RS mentor.

- Use analog data to determine fluid model uncertainty ranges
- Run a series of screening models (folded Plackett-Burman design) for multiple development scenarios without optimization. Driven by ES&RS mentor find the heavy hitters on the history match as well as the desired outputs (fluids in place and reservoir recovery). Provide data for possible rebuild of the static models for the final stage.
- Run a series of final models (D-Optimal design) for multiple development scenarios with and without optimization guided by the ES&RS Multiple development scenarios may include base case (as-is), gas-lift, Waterflood and EOR. This effort will be guided by Asset Team and ES&RS mentor. Identify and optimize potential in-fill opportunities guided by the ES&RS mentor,
- Jointly with Earth Scientist pick a P50 and P90 model. Verify that opportunities indicated by the stochastic assessment still hold. Guided by ES&RS Mentor and the Asset Team rep Optimize gas-lift, Waterflood or EOR performance when required.
- Jointly with earth modeler and the ES&RS Mentor get a final buy-in from the Asset

For study types 2 and 3 only:

- Generate preliminary Mated Balance model using MBAL or similar tool. For models with multiple fault blocks look for evidence of leakage across fault. Generate the appropriate production data cross-plots, determine appropriate limits in pressure and well phase cumulative production for the history matching portion of the work. Determine possible dual or single completion wells at fault or with questionable allocation guided by the ES&RS Mentor and Asset Team rep and get it signed off by the Asset Team.
- Run and history match the all-low-level, all-high-level and all mid-level cases to determine the ranges.

Deliverables;

- Detailed documentation of static and simulation models including all the steps and thought process for the model generation and forecasting.
- Detailed documentation of the history matching process including the end results and how to steps Type (for study types 2 and 3 only).
- Detailed documentation of uncertainty ranges and responses in the form of tornado and Pareto
- Complete set of static and simulation models and provide assistance in the migration of models to Gocad and Cheers formats.
- Final report delivered to CNL as a word or PowerPoint document containing most of the required deliverables in an editable format. This written final report must be suitable for reserve audits and implementation of recommendations.

(3) Mandatory Tender Requirements:

(A) To be eligible for this tender exercise, interested bidders are required to be pre – qualified in the 3.12.10 (Reservoir Evaluation Services) and/or 3.02.18 (Simulation Consultancy) or/and 3.04.20 (Reservoir Services) category in NipeX Joint Qualification System (NJQS) database. All successfully pre-qualified suppliers in this category by the bid close date will receive Invitation to Technical Tender (ITT),

(B) Please note that interested bidders including their sub-contractor(s) shall be required to:

(i) Meet all JQS mandatory requirements to be listed as “PREQUALIFIED” for a category in the JQS database.

(ii) Meet all Nigerian Content requirements stated in this advert in their responses to the Invitation to Technical Tender.

(C) To determine if you are pre-qualified and view the product/service category you are listed for: Open www.nipcxng.com and access NJQS with your log in details, click on continue Joint Qualification Scheme tool, click check my supplier status and then click supplier product group.

(D) If you are not listed in this product/service category, and you are registered with DPR to do business for this category, **please contact NipeX office at 30, Oyinkan Abayomi drive, Ikoyi Lagos with your DPR certificate as evidence or verification and necessary update.**

(E) To initiate Complete the JQS prequalification process, access www.nipexng.eorn to download the application form, make necessary payments and contact NipeX office for further action.

(4) Nigerian Content

Chevron Nigeria Limited is committed to the development of the Nigerian Oil and Gas business in observance with the Nigerian Oil and Gas industry Content Development Act 2010 (NOGICD Act) enacted by the Federal Government of Nigeria in April 2010.

Pursuant to enactment of the NOGICD Act, the minimum Nigerian Content in any project, service or product specification to be executed in the Nigerian Oil and Gas Industry shall be consistent with the level set in the schedule of the Act and any other target as may be directed by the Nigerian Content Development and Monitoring Board (NCDMB).

Contractors shall comply with the provisions of the NOGICD Act and all applicable regulations. Bidders that do not meet the Nigerian Content criterion will not be allowed to participate in next Tender Stage

The following are the Nigerian Content requirements bidders are expected to comply with in their technical bid submission.

- (A) Demonstrate that the entity is a Nigerian Registered Company, or a Nigerian Registered Company in genuine alliance or joint venture with foreign company with details on scope and responsibilities of parties for this work. Such companies must show evidence of joint venture binding agreement duly signed by the CEO of both companies including evidence or plans of physical operational presence and set-up in Nigeria
- (B) Furnish details of company ownership and share holding structure. Also submit clear photocopies of your CAC Forms C02 and C07
- (C) Provide evidence of the percentage of 1) key management positions that are held by Nigerians and 2) total work force that are Nigerians Also, show overall percentage of work to be performed by Nigerian resources relative to total work volume.
- (D) Provide a Nigerian Content Plan with a detailed description of the role, work scope, man-hours and responsibilities of all Nigerian companies and personnel that will be involved in executing the work. Also provide details of Nigerian Content contact or manager.
- (E) State proposed total scope of work to be performed by Nigerian personnel (whether contracted directly or under subcontract agreements) with names and addresses including evidences of well equipped offices and workshop; attach past experience of such patronage,
- (F) Specific to this project, provide detailed plan for staff training and development on engineering, project management and procurement (including all software to be used, number of personnel, name of organization providing such training and evidence of past training record) for Nigerian personnel including description of any specific programs in place for transfer of technology and skills to indigenous businesses and Nigerians over the next five (5) years,
- (G) Provide evidence of domiciliation of project management and procurement centers in Nigeria with physical addresses (not P.O. Box).
- (H) Location of in-country facilities, (Equipment, storage, workshops, repair & maintenance facilities and, testing facilities).
- (I) Contractor must be willing and able to provide evidence of maximization of made in Nigeria goods and services.

- (J) Provide details on any other Nigerian Content initiative your company is involved in.
- (K) Provide evidence of MOU with OGTAN registered trainer to conduct classroom module of training and on the job attachment
- (L) Provide human capacity building development plan including budget which must be minimum 10% of project man-hours or cost. Training will be targeted at developing capacity other than bidder's personnel. Trainees will be nominated from a database maintained by NCDMB and the services of OGTAN registered trainers utilized to cover classroom modules.
- (M) Provide details of equipment ownership.
- (N) Bidders (Vendors, Original Equipment, Manufacturers-OEMs and EPC contractors) are required to present Nigerian Content Equipment Certificate (NCEC) issued by Nigerian Content Development and Monitoring Board (or evidence of application for the certificate) in respect of any components, spares, equipments, systems and packages to be used in the proposed project under tender

(5) **Close Date**

Only bidders who are registered with NJQS Product/Category the 3,12,10 (Reservoir Evaluation Services) and/or 3.02.18 (Simulation Consultancy) or/and 3.04.20 (Reservoir Services) by 16:00 Hours, **28th October, 2015** being the advert close date shall be invited to submit technical bid.

Please note the following:

- (1) Suppliers eligible for this tender opportunity are expected to be prequalified in NJQS under this product/service category.
- (2) The Invitation to Tender (ITT) and any further progression of this tender shall be via NipeX.
- (3) All costs incurred in preparing and processing NJQS prequalification shall be to the contractor's accounts.
- (4) Interested bidders must be able to provide World Class and Fully Integrated Reservoir Studies in compliance with COMPANY specifications.
- (5) This advertisement shall neither be construed as any form of commitment on the part of Chevron Nigeria Limited to award any contract to any company and or associated companies, sub-contractors or agents, nor shall it entitle prequalified companies to make any claims

whatsoever, and/or seek any indemnity from Chevron Nigeria Limited and or any of its partners by virtue of such companies

having been prequalified in NJQS.

(6) The tendering process shall be the NNPC contracting process requiring pre-qualified companies to submit technical tenders first. Following a technical review, only technically and financially qualified contractors will be requested to submit commercial tenders.

(7) Chevron Nigeria Limited will communicate only with authorized officers of the pre-qualifying companies and NOT through individuals or Agents.

Please visit the NipeX portal at www.nipexng.com for this advert and other information.

Management

Chevron Nigeria Limited, 2 Chevron Drive, Lekki Peninsula, P.M.B. 12825, Lagos.