



## **JEFFREY A. MOORE, P.E., PMP**



Mr. Moore is a Senior Executive Consultant with Long International and has over 29 years of experience with a strong focus in upstream oil and gas field developments using decision-driven stage gate processes. He is adept at front-end scoping and planning, capital project execution and brownfield operations support. Mr. Moore established a successful parallel track record of business acumen and company leadership, having transformed a little-known and unprofitable subsea front-end consulting engineering firm into an industry-recognized and profitable full-service engineering and capital project management services firm. He is known for creating a cohesive team culture, employing a hands-on leadership style, and leading from the front.

Mr. Moore specializes in full-field development concept feasibility, pre-FEED and FEED engineering studies, topsides greenfield and brownfield expansion detailed design, installation/hookup/pre-commissioning planning, contracting strategy formulation, capital project execution planning and management, brownfield operations support, and structural analysis and design. During his career, he has worked on project locations throughout the world including US Gulf of Mexico, Mexico, North Africa, Northwest Africa, Angola, Nigeria, Congo, Cote d'Ivoire, Cameroon, and Vietnam. Project types include FPSOs, subsea developments, and fixed platforms.

### **EDUCATION**

M.B.A., Finance, University of Houston, 1997, with honors

M.S., Civil Engineering, University of Texas, Austin, 1989

B.S., Civil Engineering, University of Colorado, Boulder, 1987, with honors

### **PROFESSIONAL REGISTRATIONS**

Project Management Professional (PMP), Project Management Institute (No. 2311729)

Registered Professional Engineer, Texas (No. 80777)

Registered Professional Engineer, California (No. 47631)

Registered Professional Engineer, Colorado (inactive)

Registered Professional Engineer, Louisiana (inactive)

### **PROFESSIONAL AFFILIATIONS**

Offshore Energy Center, Pioneering Technology Committee

United States Navy Reserve, Lieutenant Commander, 1<sup>st</sup> Naval Construction Regiment

### **PROJECT AND TECHNICAL EXPERIENCE**

Representative project and technical experience includes:

- Engaged as an independent expert for an arbitration involving a North African offshore oil field development.
- Leading feasibility studies for an offshore gas field and marginal offshore oil fields offshore Northwest Africa.
- Management of upstream oil and gas projects, including project management and the management of major engineering and construction contractors as owner's representative.
- Overall coordination of, and input to, formal oil & gas field Plan of Development for submission to authorities.



- Development of project execution plans, inclusive of, but not limited to: stakeholder engagement, communication, contracting, organization and staffing, project assurance, risk management and document management plans.
- Facilitation of risk workshops, including identification of and quantification of risks, means to mitigate, and scoring of residual risk.
- Management and implementation of owner's construction management initiatives.
- Development and implementation of project and construction management plans and procedures.
- Development and assessment of project costs and schedules.
- Development and assessment of contracting strategies.
- Development and assessment of bidders and bid lists.
- Development and assessment of contract terms and conditions, exhibits and specifications.
- Development of bid evaluation and bid award procedures.
- Development, implementation and assessment of construction readiness and project performance reviews.
- Development and implementation of constructability reviews.
- Identification and evaluation of engineering and construction changes and their impact on cost and schedule.
- Performance of process, geotechnical, mechanical and civil engineering functions for facilities and pipeline design and equipment selection. Engineering functions including HAZOPs, risk assessments, development of process flow diagrams and piping and instrumentation diagrams, facilities layouts and preparation of facilities, equipment and instrument specifications.

## **PROFESSIONAL EXPERIENCE**

### **Long International, Inc.**

*Houston, Texas (August 2018 to Present)*

As a Senior Executive Consultant with Long International, Mr. Moore provides a variety of services including, but not limited to, claims preparation, construction contract and change order dispute analysis, schedule delay analysis, cost analysis, standard of care analysis, and arbitration/litigation support.

### **Lukoil International Upstream West, Inc.**

*Houston, Texas (2015 to 2018)*

As Senior Facilities Advisor, Mr. Moore was responsible for supporting management with Lukoil's interest in Operated-by-Others (OBO) field developments. He performed parallel in-house engineering to validate Lukoil's position and develop cost and schedule estimates. In addition, he assertively represented Lukoil's interests while maintaining positive partner relations with facilities counterparts in charge of development activities.

Mr. Moore helped safeguard Lukoil's non-operated interest in the Deep Water Tano Cape Three Points Development located offshore Ghana. It was operated as a prototype for applying Lukoil's project management process to OBO projects. More specifically, Mr. Moore was heavily involved in the Pecan field, an oil field that is part of the Deep Water Tano Cape Three Points Development. The field consists of subsea wells producing to an in-field spread-moored FPSO with tandem offloading. Production is boosted using subsea multi-phase pumps. Gas is exported to shore via remote subsea tie-in to a third-party pipeline. Mr. Moore acted as primary author and overall coordinator for the Decision Support Package that served to transition



Pecan from Select to Define Stage. Moreover, he primarily authored the Pecan Project Execution Plan and synthesized the inputs of other disciplines. To facilitate the development of the Project Execution Plan, Mr. Moore conducted a workshop. He further assisted in preparing cost and schedule estimates for Pecan and led technical and economic evaluation of oil satellite tiebacks. He utilized PetroVR software to optimize phasing of satellites for Pecan development and served as Lukoil's technical point of contact for helping the Operator define and implement its gas utilization strategy. Lastly, Mr. Moore took the lead as author and coordinator for the development of the Lukoil Field Development Plan for Execute Stage, as a hedging strategy to ensure retention of the Deepwater Tano Cape Three Points block, if the Operator failed to submit the document in a timely manner.

In relation to the Etinde development located offshore Cameroon, Mr. Moore served as Senior Facilities Advisor, helping to safeguard Lukoil's non-operated interest. In this role, he prepared capital cost, operating expense and schedule estimates for Etinde and ran project economics. The scope consists of wellhead platforms producing to a central production platform, with condensate piped to a spread moored FPSO with tandem offloading, and LPG-rich gas exported via subsea pipeline to a third party. Mr. Moore further assisted with economic evaluation of opportunity for participation in a midstream FLNG project.

Mr. Moore also served as Senior Facilities Advisor, helping to safeguard Lukoil's non-operated interest in the Nsiko development located offshore Nigeria. Nsiko consists of gas lifted subsea wells producing to an in-field spread moored FPSO and a CALM buoy for offloading. He engaged with the Operator as necessary and provided facilities advice to the asset manager.

In relation to the Bonga Southwest (BSWAP) development located offshore Nigeria, Mr. Moore served as senior facilities advisor, helping to safeguard Lukoil's non-operated interest. BSWAP consists of gas lifted subsea wells producing to an in-field spread moored FPSO and a CALM buoy for offloading. In this role, Mr. Moore reviewed contracting strategy and draft Invitation to Tender documents for six main EPCI contracts. He furnished comments to the Operator, who subsequently adopted the majority of them.

## **Field Development Partners LLC**

*Houston, Texas (2013 to present)*

As Founder and President, Mr. Moore performs *ad hoc* field development studies, as well as provides agency staffing and contingent fee recruiting services for multiple clients, including oil and gas operators, EPCI contractors and consulting engineering firms. Moreover, he carries out studies for clients, ranging from marketing and prospect capture strategies for existing upstream consulting engineering firms to business plan development and marketing of overseas based consulting firms.

Among his major assignments, Mr. Moore was a gas export pipeline delivery manager for Maersk Oil Angola's Chissonga field development, located in 1,300 m water depth offshore Angola. Mr. Moore identified and analyzed alternatives during the Select and Define stage, contracted for engineering studies, and utilized in-house resources as appropriate. He developed the contracting plan and tendered for the three related contracts: pipeline route survey, subsea long lead equipment, and EPCI pipelay scope. Furthermore, Mr. Moore negotiated, awarded, and administered the contract for the pipeline route survey. He coordinated with supporting groups such as Quality and HSE for support throughout all phases of development. Mr. Moore was also responsible for leading negotiations related to Confidentiality Agreements and Pipeline Routing Agreements with Block 15 and 15/06 operators. He negotiated the receipt of key data from Block 15 and 15/06 operators, including shallow seismic data and geotechnical borings, at no cost to Maersk Oil. Mr. Moore supported commercial negotiations leading to Gas Supply Agreement and Pipeline Construction and Transfer Agreement. Additionally, he oversaw relationship management related to gas export pipeline with key external stakeholders (SOMG, Sonangol, Sonagas, Block 15 operator, and Block 15/06 operator). Lastly, he co-



authored and coordinated development of the Project Execution Plan for the entire Chissonga field development during the Select stage.

**Doris, Inc. and Doris Construction Support Services, LLC**

*Houston, Texas (2004 to 2013)*

As President of these companies, Mr. Moore developed a phased growth strategy to expand Doris, Inc. services and organizational capabilities beyond front-end subsea consulting engineering to include full-field engineering and capital project management services. Mr. Moore implemented this strategy in early 2005 and grew the company from 19 team members to over 100 by 2009. He quickly restored the company to profitability, and revenues increased from US\$3 million in 2004 to US\$19 million by 2009. During the industry downturn in 2009 through 2011, Mr. Moore successfully maintained revenues and retained staff. During 2012, he replaced on-the-fly US\$10 million in new work to replace booked work that was cancelled or delayed by clients and delivered US\$20 million total revenue. By early 2013, he developed a multi-year backlog approaching US\$70 million through repeat business on long-term capital projects, and signed MSAs with new clients to support world-class projects like Cobalt Cameia (Angola) and PEMEX Lakach (Mexico).

Mr. Moore created Doris Construction Support Services, LLC in 2010. This wholly owned subsidiary focused on the boots-on-ground trades, with specific focus on QA/QC. This business was complementary to Doris' core business of consulting engineering and capital project management services.

In addition to his company leadership roles, Mr. Moore led or provided oversight for Pre-FEED/FEED engineering, detailed design, and capital project management activities. He served as project sponsor and/or steering committee member on all major projects, providing technical and project management guidance. He provided leadership and mentorship to the company's project professionals, and assisted project professionals in defining project scope and project team organizational structure, as well as methods of execution.

For Maersk Oil Angola's Chissonga field development, Mr. Moore served as field development consultant during concept/Pre-FEED phase, and overall project sponsor.

For Murphy Exploration & Production's Azurite field development offshore Congo, Mr. Moore filled the role as field development consultant and project sponsor. He established direction for early engineering and capital project planning efforts. He mentored the assigned capital project manager and staff in applying decision-driven capital project stage gate processes and in the use of various techniques to maximize value creation. Azurite ultimately employed the world's first floating drilling production storage and offloading vessel (FDPSO), with production from a 10 well drill center located under the host.

For the Eastern Caribbean Gas Pipeline, Mr. Moore held the role of project sponsor. The first phase of development included gas transmission from Tobago to Barbados, inclusive of onshore treating, shore crossings, and deep-water segments. Mr. Moore helped to define Doris, Inc. engineering and capital project management efforts, including development of a project execution plan.

Mr. Moore was project sponsor and field development consultant and project sponsor for Rialto Energy's CI-202 development in shallow water offshore Cote d'Ivoire. He defined Doris, Inc. engineering efforts, identified field development options in order to highlight key development focus items, developed a scoring system and systematically evaluated said alternatives. He also developed CapEx and schedule estimates.



As field development consultant for Murphy E&P's Turquoise field development offshore Congo, Mr. Moore helped to scope and identify field development options, and established direction for early engineering and project management efforts.

Mr. Moore served as field development consultant and project sponsor for all Cabinda Gulf Oil Projects. He served as Project Manager for the GS November Bridge Pre-FEED study. He defined and implemented the project execution plan. The project scope of work entailed identification and evaluation of repair and replacement alternatives for aging platform offshore Block 0 Angola.

Mr. Moore served as Project Manager for Addax Nigeria's Seawolf jackup drilling rig remediation project. He coordinated the fast-track analysis of conductor-supported platform offshore Nigeria. A conventional jackup adjacent to the platform was stuck on location for months, and drastic removal methods, including dredging operations, were being considered by the operator. Doris, Inc. advised Addax on jackup removal methods, remedial methods to maintain platform stability with additional 30 m of conductor leg exposed and represented Addax interests at a meeting with Marine Warranty Surveyors and insurers.

Mr. Moore served as Project Manager for PetroVietnam E&P's Dai Hung field development expansion concept study. Doris' overall scope of work included development and costing of subsea scope to suit various full-field development alternatives. Each development scenario was assessed for semi-submersible host global stability, field architecture selection, steady-state flow assurance, pipeline/flowline/riser sizing and mechanical design, and subsea controls/distribution design (including assessment of direct hydraulic versus multiplex controls). In addition, assessment of horizontal versus vertical trees was made, capital cost estimates were prepared, and alternative contracting strategies to achieve an early first oil date were considered. Mr. Moore led a Doris, Inc. team site visit to assess potential modifications to the host.

Mr. Moore served as Project Manager for a concept study for Eni's Greater Longhorn field development in the US Gulf of Mexico. Doris' overall scope of work included development and costing of "building block" components to allow Eni to further develop in-house cost estimates for different development scenarios. Doris, Inc. performed steady-state flow assurance, pipeline/flowline/riser sizing and mechanical design, subsea controls/distribution design (including assessment of direct hydraulic versus multiplex controls), and capital cost estimates.

## **Chevron Corporation**

*Various Locations Worldwide (1989 to 2004)*

From 2003 to 2004, Mr. Moore served as Facilities Engineering Team Leader for the Nigeria Mid-Africa Deepwater Strategic Business Unit. In this role, he was responsible for managing the efforts of various inter-company and contractor engineering resources in support of deep-water developments during early "value creation" phases. Projects included both prospects and discoveries in operated and non-operated blocks. He interfaced with partners to ensure that Chevron interests were protected and perspectives were taken into account. He ensured that decision-quality processes were applied throughout the various phases of project development. Mr. Moore developed scope of work documents and tendered and awarded engineering studies in support.

Mr. Moore was a member of an NMA SBU special study team formed to monetize joint venture (shelf) and deep water associated and non-associated gas assets. The team's work led to Chevron's entry into the Brass River LNG plant. Mr. Moore performed feasibility-level analyses of deep-water developments using vendor and in-house analysis programs. He managed the efforts of discipline-specific team members as well as numerous in-house subject matter experts.



Mr. Moore also served as a member of the Chevron corporate deep-water technology management team, tasked with defining the corporation's deep-water R&D work program and budget (approximately US\$35-\$40 million annual spend).

From 2001 to 2003, Mr. Moore served as Lead Facilities Engineer for the Nnwa Doro Floating LNG project offshore Nigeria. Mr. Moore participated in multiple in-house and partner studies, including subsea tiebacks to shore based and GBS-based LNG plants, as well as in-field FLNG solutions (both steel and concrete hull solutions that considered side-by-side and tandem offloading schemes).

From 1997 to 2001, Mr. Moore served as Senior Facilities Engineer on a 28/28 rotational basis for Cabinda Gulf Oil Company in Angola. He was responsible for design, contracting and construction of various oil, gas, and water handling facilities on existing well jackets and gathering stations in support of ongoing production operations. He performed detailed piping/mechanical and structural analyses and designs for modifications to existing production facilities, specified all equipment and prepared all purchase order requisitions, and subsequently tendered and awarded the construction work. He developed project execution plans for each project (e.g. logistics plans, safety plans, isolation plans, NDT plans, and pre-start up safety review plans), cost estimates and schedules, technical specifications and bid packages, performed commercial and technical evaluations, and awarded contracts for facilities work. He facilitated weekly coordination meetings with customers and contractors. Mr. Moore also taught technical courses in "Structural Analysis/Design" and "Economic Analysis Principles" to Angolan engineers.

Mr. Moore managed the work of four Angolan engineers, numerous contractors and company inspectors in the field, and engineering consultants. He held formal performance review sessions with Angolan engineers twice a year and informal coaching sessions as required, attended ranking sessions, and handled annual salary administration duties.

From 1995 to 1997, Mr. Moore served as Lead Structural Engineer for the Escravos Gas Project, located offshore Nigeria. He managed company and contractor structural engineering efforts related to fabrication, loadout, transportation, installation, and hookup of an eight-pile gas compression platform with 6,200-ton modular topsides for Nigeria (fab & install contract value US\$150 million). He supervised the efforts of junior staff, construction inspectors, and various supporting technical company personnel. He was proactive in identifying and subsequently negotiating significant cost and schedule savings, and successful in negotiating contractor claims.

From 1993 to 1995, Mr. Moore served as Facilities Engineer for the Benin River Flow Station, located in the swamps of Nigeria. Mr. Moore prepared conceptual cost estimates and performed preliminary structural analyses and designs for concrete barge-mounted production facility in Nigeria. He performed various facilities-related tasks, such as separator sizing and pump selection, and performed preliminary structural and elastic foundation designs and consolidation (including predictor of settlement) for various facility options. He prepared initial facilities layouts, prepared bid packages, performed technical and commercial evaluations/negotiations, and administered contracts for various works (including construction of the concrete barge and its subsequent trans-Atlantic dry tow and installation in the field). He specified, bid out, and procured various topsides equipment (e.g., platform crane and drain tank). He managed activities of contract engineers, fabricators, and inspectors.

From 1991 to 1992, Mr. Moore was assigned to Chevron Overseas Petroleum, Inc. and served as Project Manager for two EPCI contracts for Chevron Nigeria Ltd. He relocated to Houston to be actively engaged during subcontractor engineering and procurement efforts for the EPCI of three quarters platforms that bridge-connected to existing utilities platforms offshore Nigeria. He negotiated contract change orders and served as



company representative in charge during installation and hookup activities offshore. He also supervised efforts of onshore and offshore inspectors. During the same time, Mr. Moore prepared the Technical Requirements and bid package, and ultimately contracted for the procurement and fabrication of 15 caissons and decks for use offshore Nigeria. He managed contractor procurement and fabrication efforts along the US Gulf Coast, and supervised inspection efforts.

From 1989 to 1991, Mr. Moore was assigned to Chevron Corporation's Engineering Technology Department in San Ramon, California. He performed detailed in-service and pre-service structural and geotechnical analyses and designs for new offshore facilities, and developed a new standard tripod deck, jacket, pile analysis and design for offshore Nigeria. He prepared estimates and schedules, and prepared Technical Requirements and bid packages for various geotechnical investigations and EPCI contracts.

#### **PUBLICATIONS AND SPEAKING ENGAGEMENTS**

Moore, Jeffrey LCDR. "Refining Seabee Contingency Planning & Construction Skills", *The Military Engineer*, Volume 111 No. 719, January – February 2019.

Moore, Jeffrey LCDR. "Seabees Display Command and Control Expertise During RIMPAC", *The Navy Reservist* Volume 18 Issue 3 September 2018.

Howard, Hampshire, Moore, White, and Bayne. "Azurite Field Development: Lessons Learned from Industry's First FDPSO," *Offshore Technology Conference*, 2010.

Harris, Howard, Hampshire, Moore, Bayne, and Pepin-LeHalleur. "FDPSOs: The New Reality and a Game-Changing Approach to Field Development and Early Production Systems," *Offshore Technology Conference*, 2010. *Principal author and awarded ASME's prestigious Arthur Lubinski Best Mechanical Engineering Paper award at OTC 2010.*

Howard, Hampshire, Moore, White, and Bayne. "First-Ever FDPSO at Work on Azurite Field Development," *Offshore Pennwell*, November 2009.

Moore, Jeffrey LT. "Seabees Play Key Role in Euphrates Bridge Recovery Operation," *Navy News*, Story Number NNS070618-04, June 2007.

Moore, Jeffrey LT and Barlow, James LT. "Seabees Build Command Outpost in Al Anbar Province," *Navy News*, Story Number: NNS070424-11, April 2007.