



RICHARD L. KELLEY, P.E.



Richard L. Kelley, P.E. is a Senior Executive Consultant with Long International and has over 30 years of U.S. and international experience in the oil and gas exploration and production industry. Mr. Kelley has held leadership roles in the development of facilities projects from concept through operations phases. He has managed aspects of both long-term and fast-track projects ranging in value from US \$35 million to US \$2 billion, which included natural gas processing plants (NGL and LNG) as well as onshore and offshore oil and gas production facilities. His core areas of expertise include: integration of multi-discipline technical and commercial team performance, application of stage-gate project management processes, and preparation, negotiation and administration of engineering, construction, operation and utility contracts. Mr. Kelley has also provided depositions and court testimony as the owner's representative in two U.S. natural gas royalty

litigations and an International Chamber of Commerce EPC contract arbitration.

Mr. Kelley began his professional career with Amoco Production Company as a process engineer, initially focused on design, start-up, and operation of new cryogenic Natural Gas Liquids (NGL) recovery plants. He then moved into project engineering functions and ultimately project management roles in a variety of oil and gas developments in Texas, Wyoming, Colorado, New Mexico, Kansas, and Oklahoma and internationally in Egypt, Algeria, and Indonesia. His most recent roles and projects for British Petroleum (BP) were Director of Tangguh Liquefied Natural Gas (LNG) Phase 2 expansion in West Papua, Indonesia and Construction Manager for the In Amenas Gas Project in the Sahara Desert in central Algeria. Between his employment with Amoco and BP, he worked for a small engineering design firm and as a private consultant in the route survey and permitting of fiber optic backbone systems in the central and west coast areas of the U.S.

EDUCATION

B.S., Chemical Engineering, University of Houston, 1976

PROFESSIONAL REGISTRATIONS

Registered Professional Engineer, Texas (No. 54125)

PROFESSIONAL AFFILIATIONS

American Institute of Chemical Engineers – Senior Member
Project Management Institute – Member

LANGUAGES

English – fluent; Spanish and French – beginning

TECHNICAL EXPERIENCE

Representative U.S. and international technical experience includes:

- Various management positions for oil and gas projects that included conceptual assessment, front-end engineering design, detailed engineering design, construction, start-up and operation of both sweet and sour natural gas fields, NGL and LNG plants, gas gathering pipeline networks and compression facilities and waste water treatment facilities. Responsibilities included the management of the owner's team as well as major engineering and construction contractors as the owner's representative.



- Development of project management plans, schedules, costs, resources and procedures from concept through execution and start-up phases.
- Systematic evaluation of project performance on a forecasted and post-appraisal basis through objective measures and cause/effect analysis.
- Deposition and witness testimony as owner's representative and as an expert witness.
- Process engineering, process flow diagram and piping & instrumentation diagram development, and preparation of equipment specifications.
- Start-up and operations supervision of natural gas, oil and industrial waste water treatment facilities.

PROJECT EXPERIENCE

Representative U.S. and international project experience includes:

- Individually managed fast-track temporary facilities, technical trials and final design scope through front-end engineering design, cost and schedule of a \$40 million LNG Plant waste water treatment facility in West Papua, Indonesia. The need for special waste water treatment equipment was not discovered until start-up of the new LNG facility. Therefore, defining the scope (treatment chemistry and equipment), logistics issues to West Papua and maneuvering through the government technical and procurement approval processes had to be managed on a fast-track in order to allow the LNG plant to start-up and continue operations.
- Led owner's multi-discipline team and third-party engineering contractor from concept through front-end engineering design, cost and schedule scope definition of a \$2 billion development of offshore gas reservoirs and associated platform and pipeline facilities and the expansion of onshore facilities, including a third, 3.8 million tonne per annum LNG train in West Papua, Indonesia.
- As owner's site representative, provided oversight of contractor's performance during construction phase of the \$750 million Algeria gas development project. Scope of project included a one bcf/d gas plant, 100 kilometers of 12"-24" high pressure gas gathering pipelines, 110 kilometers of 36" sales gas pipelines, 110 kilometers of 12" LPG pipeline and a 120 kilometers of condensate liquid pipeline. Prior to project approval, responsibilities included definition of the infrastructure scope of work and the evaluation and clarification of competitive lump-sum bids. Owners increased plant capacity requirement by 50% after the initial bids had been submitted which significantly complicated the final scope of work definition and final bid basis confirmation.
- Program General Manager responsible for design, contracting and construction of the \$18 million relocation of a 100 mmcf/d cryogenic gas plant from Platteville, Colorado to the Texas Panhandle, installation of 5-miles of 12" sales gas pipeline and a \$20 million wellhead automation project. Due to low-budget and fast-track requirements, individually managed all aspects of the project, including preparation, execution and administration of engineering and construction contracts, procurement of major equipment, cost and schedule control and invoicing/asset allocation accounting.
- Owner's Project Manager of the engineering, procurement and construction of 500 miles of gas and produced water gathering pipelines and ten waste water injection well/disposal facilities associated with a \$160 million coal degasification project in the Four Corners area of San Juan Basin. Also managed contracting with the local electric co-op to provide a new 30-mile 115 KVA electrical transmission system and negotiated gas processing and gathering agreements with third-party suppliers.
- Provided expert witness testimony for a royalty owner/producer dispute regarding post-production expenses associated with the Kansas-Hugoton gas field.
- Project Director for field survey, alignment drawings, permit drawings, permit documentation and construction bid packages for over 1,000 miles of new backbone fiber optics systems between Houston/Kansas City and Los Angeles/Riverside, California



- Engineering Manager of CO₂ tertiary oil recovery project in three large oil fields in the Texas panhandle. Managed owner's engineering team which completed the design and installation of CO₂ injection wells, well down-hole tubular conversions, oil and gas pipeline gathering system improvements, CO₂ dense fluid distribution pipelines, produced water disposal facilities, new production batteries and the automation of operation and fluid measurements of over 3,000 wells, cumulatively valued at \$150 million.
- Performed the preliminary process design for the acid gas removal and condensate stabilizer units for a new sour gas plant located in the remote mountains near Evanston, Wyoming. Owner's representative in the EPC contractor's office through engineering design and on-site during construction of this \$250 million cost reimbursable project.

PROFESSIONAL EXPERIENCE

Long International, Inc.

Raleigh, North Carolina (January 2011 to present)

As a Senior Executive Consultant with Long International, Mr. Kelley provides project management, claims analysis and dispute resolution services to the construction industry. He is skilled in the assessment of technical issues and evaluation of project management performance of owners and construction contractors on engineering, procurement, and construction contracts for process plant and industrial projects.

British Petroleum

London, Algeria, Indonesia and U.S. (October 2002 through May 2010)

Mr. Kelley was appointed Project Director responsible for evaluation of a \$2 billion expansion (Phase 2) for the Joint Venture Tangguh Liquefied Natural Gas (LNG) project located in West Papua, Indonesia. His responsibilities included direct management of the facilities project and engineering teams and the integration of petroleum reservoir engineer, geologist and operations disciplines into a comprehensive execution plan and commercial evaluation. Phase 2 onshore and offshore development expansion studies included a third 3.8 million tonne per annum LNG train as well as sequential development of five world-class offshore gas fields over a twenty year period. He also assisted with Phase 1 start-up by personally managing stop-gap provision of Waste Water Treatment (WWT) facilities that had been overlooked in the original Phase 1 design. He coordinated with corporate WWT specialists to define the chemistry and equipment needed to remove toxic water soluble impurities and then managed the rental service contracts and oversaw daily operations of temporary WWT equipment that ensured continued operation of the new LNG facility. Over the course of 3 months, he contracted and managed the front-end engineering design and obtained partner and government approvals for a permanent \$40 million WWT system managed by others in 2010.

Prior to his Indonesian assignment, Mr. Kelley was the owner's Construction Manager for the In Amenas Gas Development Project, a "greenfield" gas condensate field development located in the Sahara desert in southern Algeria. His responsibilities included interfacing with the EPC contractor's site management teams and the provincial Algerian authorities, construction performance assessment and intervention (when necessary), quality assurance and the oversight of health, security, safety and environmental aspects of the project. He also provided both technical analysis and documentation reports for the owner's legal arguments submitted to an International Chamber of Commerce arbitration panel involving cost increase and schedule delay claims by the EPC contractor. He was the only owner's representative that provided direct testimony to the arbitration hearing.



Independent Consultant

London UK; Colorado and Washington U.S. (January 2001 through September 2002)

As an independent consultant, Mr. Kelley executed the role of Construction Manager for the In Amenas Algeria Gas Development Project during the final EPC lump-sum bid contract preparation phase. His responsibilities included development of mobilization and construction procedures and infrastructure scope definition. He was also part of the owner's team that evaluated and formally clarified competitive lump sum bids on this \$750 million project. Development capacity was increased by 50% after the front-end design and initial bids had been submitted which significantly complicated the final scope of work definition and bid basis confirmation.

Mr. Kelley provided expert witness testimony for a royalty owner/producer dispute regarding post-production expenses related to the Kansas-Hugoton gas field.

Mr. Kelley provided consulting services to manage the submission of engineering and survey documentation for rights-of-way and permits through various private, local, state and federal lands for the Williams Communications, Inc. Portland, Oregon/Seattle, Washington fiber optics backbone system projects.

Trigon-Sheehan, Inc

Denver, Colorado (June 1999 through December 1999)

Project Director for field survey, alignment drawings, permit drawings and construction bid packages for over 1,000 miles of Williams Communications backbone fiber optics system projects between Houston/Kansas City and Los Angeles/Riverside, California. Mr. Kelley's responsibilities included the direct management of twelve survey crews and the design/drafting groups in Denver, Durango and Tulsa based offices.

Amoco Production Company

Various locations in Texas, New Mexico, Louisiana, Illinois, Colorado, Wyoming U.S. and Egypt (May 1975 through March 1999)

- Program General Manager responsible for design, contracting and construction of the \$18 million relocation of a 100 mmcf/d cryogenic gas plant from Platteville, Colorado to the Texas panhandle and a \$20 million wellhead automation project in the Texas Panhandle. Mr. Kelley's responsibilities included negotiation of project scope within the Amoco/Maxus partnership, then contracting the services for design, procurement and construction of the projects through start-up. Due to low-budget and fast-track requirements, he individually managed all aspects of the project, including preparation, execution and administration of engineering and construction contracts, procurement of major equipment, cost and schedule control and invoicing/asset allocation accounting.
- Mr. Kelley led the owner's technical, commercial and legal team in negotiation of contracts with The Williams Companies that transferred operational control of the Kansas-Hugoton gas gathering system to Amoco. This included a capital expansion/operations agreement and a gathering service agreement that established the procedures and fee structure for all customers using this system that served over 2000 gas wells. In addition, he managed the facilities project and engineering team that designed and installed a \$55 million expansion of the field compression systems.



- Mr. Kelley managed the engineering and construction of non-plant facilities associated with Amoco's \$160 million coal degasification project in the Four Corners area of San Juan Basin. His responsibilities included organizing and leading the project and engineering team, contracting engineering and construction services and all equipment procurement from concept definition through facilities start-up. The scope included over 500 miles of company-owned pipelines, ten waste water disposal stations/injection well facilities and a 30-mile 115 KVA electrical transmission system to supply power for 35,000 hp of electric motor driven compression. He also negotiated third party gas processing and gathering agreements and the power contract.
- Mr. Kelley completed various project and operations engineering assignments for Gupco, a joint venture established in 1968 between Amoco and the Egyptian National Petroleum Company for development of offshore oil and gas in the coastal waters of the Red Sea and the western desert of Egypt. Initially working in Cairo, he provided feasibility studies for future offshore oil development projects. After 9-months, he moved to a rotational assignment in Ras Shukheir as the Supervisor of engineering support for Northern Division operations of 500,000 bpd of offshore oil production in the Gulf of Suez. In his final year with Gupco, he served as the District Engineering Manager supervising six department heads, with overall responsibility for coordinating engineering efforts to maximize daily oil and gas production through optimization of gas lift, well repair programs and the cost efficient completion of new wells.
- Mr. Kelley was the District Engineering Manager during the design and installation of Amoco's first full scale CO₂ tertiary oil recovery projects in the Texas panhandle. He managed the engineering staff that completed the in-house design of equipment and new metallurgy/non-ferrous materials applications to perform in CO₂ injection wells, as well as the design of oil and gas pipeline gathering system improvements, CO₂ dense fluid distribution pipelines, produced water disposal facilities, new production batteries and the automation of well operation and fluid measurements, cumulatively valued at \$150 million.
- Mr. Kelley moved to Amoco's corporate headquarters in Chicago and initially served as a start-up process engineer for several new Texas and Louisiana gas processing plants. He performed the process design for the acid gas removal and condensate stabilizer units (based on Amoco's proprietary technology) for the Whitney Canyon Sour Gas Plant to be located in the remote mountains near Evanston, Wyoming. He was then assigned as the Lead Project Engineer to work in the EPC contractor's offices through engineering design and then moved to the site as owner's Site Manager during the construction of this \$250 million cost reimbursable project.
- Early in his career, Mr. Kelley provided operations support for two natural gas processing plants (cryogenic and lean oil) in the Texas Panhandle and eastern New Mexico. He designed and oversaw the installation of equipment (including molecular sieve dehydration, enhanced three phase separation, NGL sour liquid treaters and an automated ethane/propane blending system) to de-bottleneck a new 40 mmcf/d cryogenic processing unit.