THE COST ESTIMATION MODELS USE FOR INTEGRATED PROTECTION, SECURITY ENHANCEMENT & REAL TIME MONITORING AND ASSOCIATED WORKS FOR JURASSIC WELLS AT NORTH KUWAIT AREAS

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Kuwait Oil Company (KOC) is developing SCADA & safety enhancement system (INTEGRATED PROTECTION, SECURITY ENHANCEMENT, REAL TIME MONITORING AND ASSOCIATED WORKS FOR JURASSIC WELLS) AT NORTH KUWAIT AREAS. The main Objective of raising this project is to improve well operational safety procedures and enhance the reliability by monitoring, control and shutdown of Jurassic well from respective Facility control room by introducing SCADA & safety enhancement system. Improving the well integrity and safety performance is essential to meet the strategic Production targets of 1 BCF gas production. Current production from Jurassic Reservoirs are managed through EPF-50, JPF-SA, JPF-WR & JPF-ER Facilities. Presently SCADA system is in operation for EPF-50 wells. The ongoing Contract for SCADA & Safety Enhancement Project with EPF (O&M) will cover partial scope (only 70 wells) for the new 3 JPF's. The implementation of SCADA system has significant contribution in ensuring safe operation of wells and monitoring of real-time well parameters from control room. There are plans for additional wells to be connected to the 3 new JPF's for production enhancement. The Project is planned to be implemented between 2020 to 2024 to cater the production requirements for future and existing Facilities (JPF-ER/WR/SA and EPF-50). In order to reduce the gap between new wells being commissioned / connected to facility vs. requirement for introducing SCADA & safety enhancement, this New Project is initiated. In addition to the above main SCADA scope, the following works are also included;

- The fencing works to relocate a section of existing Umm Niqa fencing intended to protect the Jurassic fields as per MPW directives (to facilitate construction of MPW railroad project in Umm Niqa passing through KOC fenced area).
- The existing flowline modification works for wells located outside KOC security fence to implement the ALARP study recommendation is included to enhance the public safety.

The paper presents the cost estimation items for this project and how we get final expectation cost by implementing our KOC costing models.