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Integrated consulting services for rich gas production plan from mature fields

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Fluor was approached by a client requesting a feasibility study for a rich gas field development and debottlenecking the offshore and downstream NGL facilities. Fluor is primarily involved with gas/oil production, transportation, and gas processing/NGLs facility design and does not perform reservoir assessments in-house. In this case, Fluor and the client worked out an integrated solution with a subcontracted reservoir engineering effort to assess current in place gas/liquid volume that could be produced from the fields to support the desired gas feed rate for the offshore and onshore NGL facilities our client wanted to debottleneck. The reservoirs have been evaluated to assess the original hydrocarbons in place for each reservoir, material balance results have been compared to the current reservoir pressures to validate the reported gas production and gas re-injection values over time, and to obtain the current in place volumes. Based upon the current gas in place and the reservoir pressure profiles, a well development program was prepared to support the production plan. As part of the reservoir assessment it was found that the current in place gas/liquid volume in the reservoir does not support the clients originally proposed production plan. Hence as a result of these feasibility study findings the client postponed the offshore development and NGL recovery facilities revamp scopes. Overall Fluor has been able to successfully and effectively coordinate the different interfaces between the client's intended production plan and availability of data of the existing reservoirs to the reservoir engineering consultant and from the output of the reservoir engineering study back into the data needs for the required production to identify the potential offshore development and downstream NGL processing facilities' revamp.



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Biography

Kjeld Bokstijn is a Process Engineer who has been active in the industry over the last 22 years, working in production and engineering functions in The Netherlands, the United States and Spain. He holds a BSc and MSc in Chemical Engineering and is currently employed by Fluor as a Process Director working on projects mainly in the chemical, petro-chemical, refining and power generation area. However due to the interfaces between the gas plant and the petrochemical units consuming the NGL feedstock from these, he has become involved in this NGL recovery and gas-production feasibility study. Fluor's Energy and Chemicals division, an international engineering contractor, is involved in all these areas from upstream, midstream, downstream, petrochemical, chemical and energy business and as such can bring together multi-functional teams to work on these diverse projects offering these kind of interesting assignments to their personnel.

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