ABSTRAK

PENENTUAN SKEMA KONTRAK ANTARA PSC *COST RECOVERY* DAN *GROSS SPLIT* UNTUK PENGEMBANGAN LAPANGAN MINYAK "FRW"

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Lapangan Minyak "FRW" di Prabumulih Barat, Provinsi Sumatera Selatan, Mendekati akhir masa kontrak dan akan dilakukan perpanjangan kontrak. Lapngan FRW memiliki 4 sumur aktif dengan OOIP 42.4576 MMSTB, dan *recovery factor* awal 2,1%, dengan skenario pengembangan penambahan sumur *development*. Studi ini menganalisa skenario keekonomian PSC *Cost Recovery* dan *Gross Split* untuk menentukan skema kontrak yang optimal dan menguntungkan bagi kelanjutan operasi lapangan.

Analisa Penentuan skema kontrak dilakukan menggunakan metode kuantitatif. Studi kasus dengan simulasi reservoir dan analisis keekonomian. Tiga skenario pengembangan yaitun skenario 1 (*Basecase* + 5 Sumur Development), skenario 2 (*Basecase* + 7 Sumur Development), dan skenario 3 (*Basecase* + 11 Sumur Development). Hasil analisis teknis menunjukkan bahwa Skenario 3 (*Basecase* + 11 Sumur Development) adalah yang paling optimal, dengan kumulatif produksi minyak tertinggi mencapai 7,7839 MMSTB dan *recovery factor* 18,33% selama 30 tahun masa produksi. Analisis keekonomian dilakukan untuk Skenario 3 menggunakan dua skema kontrak utama di Indonesia: Production Sharing Contract (PSC) *Cost Recovery* dan *Gross Split*. Untuk PSC *Cost Recovery*, Skenario 3 menghasilkan NPV kontraktor sebesar $18,33 Juta USD, ROR 26,11%, dan *Pay-out Time* (POT) 3,66 tahun. *Government Take* mencapai $337,22 Juta USD. Untuk *Gross Split*, Skenario 3 menunjukkan kinerja keekonomian yang jauh lebih superior bagi kontraktor dengan NPV sebesar $41,66 Juta USD, ROR 68%, dan POT yang sangat singkat, yaitu 1,8 tahun. *Government Take* tetap kompetitif di angka $300,24 Juta USD. Perbandingan menunjukkan bahwa *Gross Split* memberikan profitabilitas yang lebih tinggi dan pengembalian modal yang lebih cepat bagi kontraktor. Analisis sensitivitas mengkonfirmasi bahwa harga jual minyak merupakan faktor yang paling berpengaruh terhadap pendapatan proyek.

Kesimpulan dari penelitian ini adalah bahwa skenario 3 menggunakan skema *Gross Split* merupakan pilihan kontrak yang paling optimal untuk pengembangan Lapangan FRW.

Kata Kunci: Lapangan FRW, Sumur *Development*, Analisa Keekonomian, PSC *Cost Recovery, Gross Split*.

ABSTRACT

SELECTION OF CONTRACT SCHEME BETWEEN PSC COST RECOVERY AND GROSS SPLIT FOR THE DEVELOPMENT OF THE "FRW" OIL FIELD

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The "FRW" Oil Field in West Prabumulih, South Sumatra Province, is nearing the end of its contract period and will undergo a contract extension. The FRW field has 4 active wells with OOIP of 42,4576 MMSTB and an initial recovery factor of 2.1%, with a development scenario involving the addition of development wells. This study analyzes the economic scenarios of PSC Cost Recovery and Gross Split to determine the optimal and profitable contract scheme for the continuation of field operations.

The analysis of contract scheme selection was conducted using quantitative methods. The case study involved reservoir simulation and economic analysis. Three development scenarios were considered: Scenario 1 (Basecase + 5 Development Wells), Scenario 2 (Basecase + 7 Development Wells), and Scenario 3 (Basecase + 11 Development Wells). The technical analysis results show that Scenario 3 (Basecase + 11 Development Wells) is the most optimal, with the highest cumulative oil production reaching 7.7839 MMSTB and a recovery factor of 18.33% over a 30-year production period. Economic analysis was conducted for Scenario 3 using two main contract schemes in Indonesia: Production Sharing Contract (PSC) Cost Recovery and Gross Split. For PSC Cost Recovery, Scenario 3 resulted in a contractor NPV of $18.33 million USD, an ROR of 26.11%, and a Pay-out Time (POT) of 3.66 years. The Government Take reached $337.22 million USD. For Gross Split, Scenario 3 shows a much more superior economic performance for the contractor with an NPV of $41.66 million USD, an ROR of 68%, and a very short POT of 1.8 years. The Government Take remains competitive at $300.24 million USD. The comparison shows that Gross Split provides higher profitability and faster return on investment for the contractor. Sensitivity analysis confirms that the selling price of oil is the most influential factor on project revenue.

The conclusion of this study is that Scenario 3 using the Gross Split scheme is the most optimal contract option for the development of the FRW Field.

Keywords: FRW Field, Development Wells, Economic Analysis, PSC Cost Recovery, Gross Split..