

Field Development Evaluations

Every field's development plan should be reviewed on a regular basis. A technical review of your reservoir at its current stage of the life cycle will identify opportunities or help avoid mistakes. We can tailor the evaluation towards a specific need of the client or follow our systematic review of the following items:

1. Original development plan vs. historical performance: Historical production is the best indicator of success, failure, or the need to adjust field development plan.
2. Practical development options: IOR, EOR, or P&A is a decision every operator must face. Surtek will evaluate (1) target oil, (2) geologic features, (3) logistic considerations, and (4) economics to assist in data driven decisions.
3. Current development plan review: Companies are often recommended to make investments by companies and individuals with a conflict of interest. Surtek does not receive commissions, or royalties for any recommendation, and the success of our client is always top priority. A review of a recommended drilling campaign, economic cost of a formulation, or the decision to P&A a field can save millions of dollars and headaches to an operator who is dealing with mature assets.
4. Analogue reservoirs and literature review: There are thousands of reservoirs that have gone through the decision making process. Many of these efforts are well documented and should be included in how best to optimize the fields development plan.

Deliverables to the Client

All Field Development Evaluation results will be presented to the client in a stand-alone presentation format. Surtek will present the findings and recommendations in a one-hour virtual meeting.

Cost and Timing

Please contact Surtek for cost and timing.

Data Requirements

Surtek takes confidentiality of our clients as a top priority and can sign a confidentiality agreement with client.

The following data is required to be provided to Surtek to conduct the evaluation

- Field development plan report (geology, EOR, modeling, etc.)
 - Proposed EOR technologies considered (past & present: type, chemical formulation, etc.)
- Available core analysis (ideally special core analysis report)
- Available PVT report(s)
- Field production data by well (oil, water, gas, and injection)
- Geologic maps and cross sections
- Well known analogue fields
- Reservoir Parameters (also available in excel spreadsheet)

GENERAL INFORMATION

Field Name:

Location:

Discovery Date:

Formation Name:

Producing intervals:

Lithology:

Depth:

Well Spacing:

Production Wells:

Injection Wells:

Inactive Wells:

Core Available:

CO₂ Source:

RESERVOIR PROPERTIES

Average Pay Thickness:

Net to Gross:

Average Porosity:

Reservoir Area:

Hydrocarbon Pore Volume:

Ave. Connate Water Saturation:

Residual Oil Saturation:

Ave. Permeability

Permeability Range:

Reservoir Temperature:

Original Reservoir Pressure:

Current Reservoir Pressure:

Estimated Fracture Pressure:

Aquifer (weak/strong/bottom/lateral/none):

Gas Cap (initial, secondary, none):

OIL PROPERTIES

Original API Gravity:

Formation Volume Factor:

Viscosity:

Gas Oil Ratio:

WATER PROPERTIES

Produced Water Salinity (Original/Current):

Produced Water Hardness (Original/Current):

Injection Water Salinity:

Injection Water Hardness:

Other Available Water Salinity:

Other Available Water Hardness:

VOLUMETRICS

OOIP:

Production Values as of (Date):

Cum Oil Production:

Cum Water Production:

Cum Gas Production:

Cum Water Injection:

Cum Gas Injection:

Estimated Ultimate Recovery:

Current Oil Production:

Current Water Production:

Current Gas Production:

Current Water Injection:

Current Gas Injection:

Injection Start Date: