Because of their age and the production they have already yielded, mature fields may be depleted, often producing high volumes of water, sand, and unwanted gas. Primary or secondary recovery methods have brought your field this far, but additional measures may take it even further. Baker Hughes DeclineShift™ extended life solutions help to sustain the economic life of mature assets by identifying the optimal reservoir management program. These solutions seek to restore and maintain lost reservoir pressure; counteract the production of unwanted water, gas, or sand; prepare for and conduct enhanced oil recovery (EOR); and monitor and control long-term reservoir performance.

DeclineShift extended life solutions use an accurate field-profile to thoroughly analyze the root cause of the field’s diminished performance. This analysis enables us to develop efficient, integrated solutions that we execute to maximize the long-term value of your mature assets, with high-impact and low imprint.

**Restore and maintain reservoir pressure**
After many years of sustained production, field pressure may be depleted, making future production technically challenging. But reservoir pressure can be restored and maintained through a combination of analytical and technological solutions, such as reservoir analysis tools, guiding managed production operating procedures, artificial lift, or injection programs.

**Water and gas management**
Neighboring aquifers or water breakthrough from your injector wells can increase production of water, gas, or sand, which can affect or block hydrocarbon flow.
Technologies such as live-well-deployed sand screen systems can mitigate sand production, and can be installed in virtually any screen length without first killing the well. Water and gas migration can be analyzed and controlled by pairing reservoir modeling software with technologies such as chemical services and mechanical shutoff or inflow control devices.

**EOR preparation**

When primary and secondary recovery methods have already been evaluated or are already in place, chemical and thermal EOR methods can be considered to maintain or increase sustainable production volumes. The pattern of production and injection wells can be tailored, and production wells can be transitioned to injection wells to boost waterflood effectiveness and minimize EOR preparation costs. In steam-assisted gravity drainage operations, Baker Hughes helps improve recovery rates and efficiency of steam injection with our steam additives and inflow control technologies.

**Monitor and control reservoir performance**

Monitoring and controlling the performance of mature fields can be a critical step in sustaining long-term economic life. Remote monitoring services and chemical automation services enable quick diagnoses and mitigation of problems for minimal downtime and minimal onsite footprint. Fiber-optic technologies can monitor downhole temperatures and stress conditions, while hydraulic flow control devices and chemical injection valves can control production performance.

As we execute DeclineShift extended life solutions, we can coordinate all services, including those from third-party suppliers, and can manage the entire project if necessary. We also offer flexible commercial models to align with different operators’ business objectives and operational needs. And, after execution, we track the results, weighing actual production and performance improvements against the projected outcomes to ensure the rapid adoption of the most successful practices—further driving capital efficiency and returns on future projects.

Because each solution is engineered in a precise manner, most require only a small wellsite footprint and can be designed to address multiple challenges in a single operation to minimize production disruptions. This helps accelerate payback and grow the present value of cash flows.

Visit BakerHughes.com/DeclineShift to learn how we can help you extend the life of your mature assets.