

# Restoring Production From Mature Oil Wells

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*Independent Field Validation of Rebound Aq™  
Production Recovery Technology*

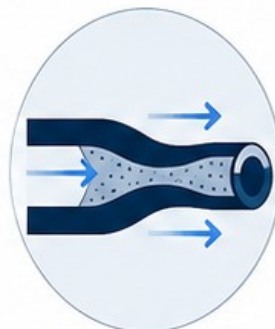
# The Production Opportunity

*Production decline does not necessarily indicate reservoir depletion.*



## Existing Assets

- Wells
- Flowlines
- Production Facilities



## Flow Efficiency

- Reduced connectivity limits production
- Flow restrictions can develop over time



## Production Recovery

- Improve access to existing hydrocarbons
- Evaluate through field pilots

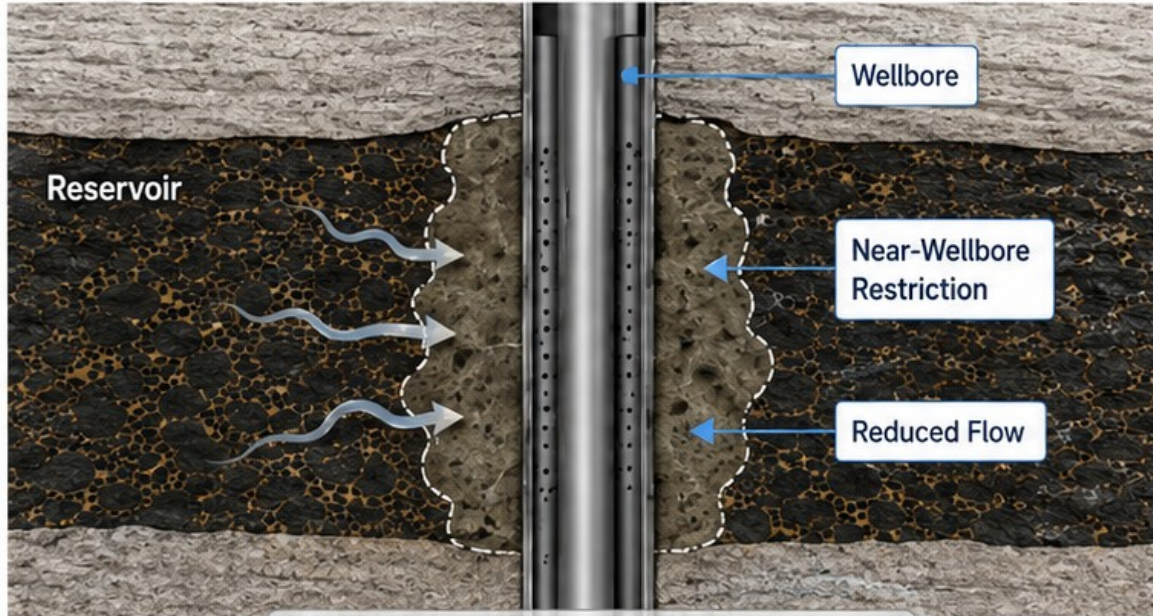


### KEY TAKEAWAY

***The objective is not to create new oil—it is to improve access to oil already present within the reservoir.***

# Why Production Declines

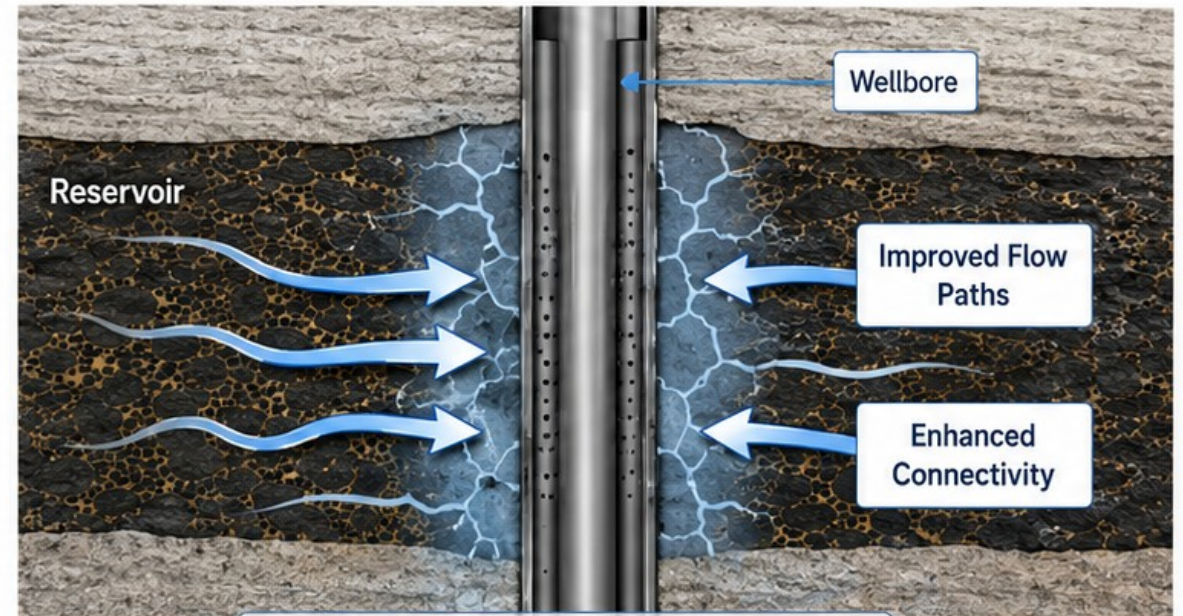
BEFORE (MATURE WELL)



## Lower Production

Reduced flow efficiency limits hydrocarbon delivery to the wellbore.

AFTER FIELD APPLICATION



## Production Recovery

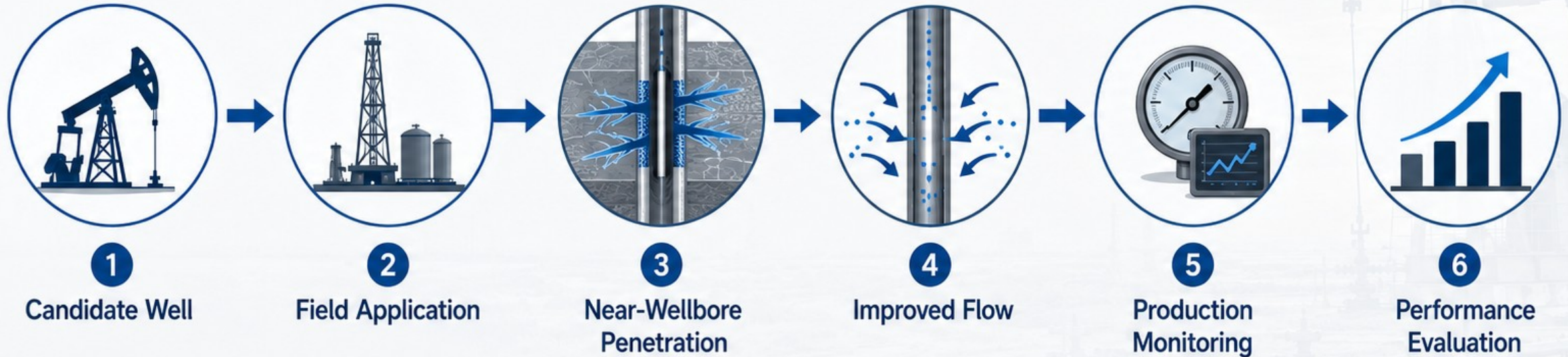
Improved flow efficiency increases hydrocarbon delivery to the wellbore.



## KEY TAKEAWAY

*Production decline can result from reduced flow efficiency even when recoverable hydrocarbons remain within the reservoir.*

# Production Recovery Approach



*The objective is to improve flow efficiency and evaluate production response under field conditions.*



## KEY TAKEAWAY

*The technology is intended to improve flow efficiency rather than replace existing production practices.*

# Independent Field Validation

*Production Recovery in a Low-Producing Austin Chalk Well*



## Challenge

A 2,200-foot Austin Chalk well had produced approximately 0.5 BOPD for nearly three years.



## Field Application

The technology was applied and allowed to penetrate the near-wellbore region before production resumed.



## Documented Production Response

Production increased from approximately 0.5 BOPD to 5.0 BOPD. Three-week oil production increased from 10.5 barrels to 105 barrels.



## Operational Observations

Austin Chalk formation material was recovered during flowback following treatment.

## DOCUMENTED PRODUCTION RESPONSE

### BEFORE TREATMENT

Average Daily Oil Production

**0.5**  
BOPD



### AFTER TREATMENT

Average Daily Oil Production

**5.0**  
BOPD



Three-Week Oil Production

**10.5**  
barrels



Three-Week Oil Production

**105**  
barrels



**Engineering Observation:** Recovery of formation material during flowback suggests improved near-wellbore connectivity following treatment.



**Key Takeaway:** *Independent field validation demonstrated a measurable production response following treatment.*

# Independent Field Validation

## Improved Production and Operating Efficiency



### Challenge

Six mature wells drilled in the 1940s produced approximately 3.5 BOPD prior to treatment.



### Field Application

The technology was introduced into the production water and injection system under field operating conditions.



### Documented Production Responses

Production increased and stabilized near 4.5 BOPD, with peak production days reaching 5-6 BOPD.



### Operational Observations

Reduced injection pressure and lower pump loading were observed, indicating improved operating efficiency.

## DOCUMENTED PRODUCTION RESPONSE

BEFORE

**3.5**  
BOPD



AFTER

**4.5**  
BOPD

**28.5%**

**Sustained Production Gain**

**Reduced Injection Pressure**

Lower pump loading and improved efficiency



## KEY TAKEAWAY

*Field validation demonstrated production improvement with reduced operating pressure.*

# Independent Field Validation

## Production Recovery in Mature Austin Chalk Wells



### Challenge

Five mature Austin Chalk wells declined from approximately 1.0 BOPD to 0.62 BOPD before treatment.



### Field Application

One barrel of technology was gravity-fed into the wellbore and allowed to soak for 72 hours before restart.



### Documented Production Responses

Production recovered to approximately 3.0 BOPD, with production spikes of 9 and 15 barrels observed.

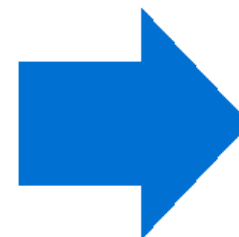


### Operational Observations

Performance improved despite intermittent mechanical issues; operator also reported increased gas production.

## DOCUMENTED PRODUCTION RESPONSE

**BEFORE**  
**0.62**  
BOPD



**AFTER**  
**~3.0**  
BOPD

**72 hr**  
Soak Period

### Peak Production Spikes

9 and 15 barrels observed



## KEY TAKEAWAY

Field validation demonstrated production recovery in mature Austin Chalk wells.

# Overall Field Observations

*Summary of documented production response and operational observations*

## Field Validation 1

**0.5 → 5.0 BOPD**

Three-week production increased from 10.5 to 105 barrels.

## Field Validation 2

**3.5 → 4.5 BOPD**

Sustained production gain with reduced injection pressure.

## Field Validation 3

**0.62 → ~3.0 BOPD**

Production recovery with peak spikes of 9 and 15 barrels.



### **Production Response**

Production improvement observed across all three field validations.



### **Operating Pressure**

Reduced injection pressure observed during Field Validation 2.



### **Flowback Evidence**

Formation material recovered during Field Validation 1 flowback.



### **Gas Response**

Operator-reported gas production increase in two field validations.



## **KEY TAKEAWAY**

*Field performance should be evaluated through operator-specific pilot programs.*

*Operational relevance for mature producing assets*



## Extend Productive Well Life

Designed for wells where near-wellbore flow restrictions may limit production.



## Use Existing Infrastructure

Leverages existing wells, flowlines, artificial lift, and production facilities.



## Reduce Capital Pressure

May provide an alternative to new drilling in selected candidate wells.



## Evaluate Through Pilots

Technology can be tested using operator production history and field monitoring.



## Support Incremental Recovery

Focuses on improving access to hydrocarbons already present in the reservoir.



### KEY TAKEAWAY

*The strongest application is a structured pilot using the operator's own wells and data.*

# Proposed Pilot Evaluation

*A structured approach to measured field performance*



## KEY TAKEAWAY

*A pilot program allows the operator to evaluate performance using its own field data.*

# Operational Fit

*Practical deployment within existing field operations*

**Designed to be evaluated through field pilots using existing wells, infrastructure, and production data.**

**1**

## Existing Wells

Candidate wells can be selected from mature assets already in operation.

**2**

## Existing Infrastructure

Application can leverage existing wellbores, flowlines, facilities, and artificial lift.

**3**

## Low-Pressure Field Application

The approach is intended to improve flow efficiency without replacing current practices.

**4**

## Production Monitoring

Oil, gas, water, pressure, and pump behavior can be tracked against baseline.

**5**

## Operator-Controlled Evaluation

Performance is reviewed using the operator's own production history and field data.



## KEY TAKEAWAY

*The technology is positioned as a pilot-based production recovery tool, not a replacement for existing operations.*

# Candidate Well Selection

*Suggested criteria for identifying pilot wells*

## PREFERRED PILOT PROFILE

- ✓ Mature producing well with declining production
- ✓ Stable production baseline available
- ✓ Suspected near-wellbore flow restriction
- ✓ Accessible wellbore for field application
- ✓ Production data available before and after treatment
- ✓ Operational conditions suitable for monitoring

## Data Needed Before Pilot

- Recent oil, gas, and water production
- Pump and pressure history
- Known mechanical issues
- Recent workover or chemical treatment history

## Selection Philosophy

The best pilot candidates are wells where production decline is measurable, baseline data is reliable, and operational conditions allow clear evaluation of production response.



### KEY TAKEAWAY

*Candidate wells should be selected to produce measurable, defensible field results.*

# Next Step: Pilot Discussion

*A practical path toward field evaluation*

## A Practical Approach to Recovering Production From Mature Wells



*Space reserved for company name, logo, website, and contact information.*



### KEY TAKEAWAY

*The recommended next step is a structured pilot discussion using selected candidate wells.*