INPUT DATA TO SCREEN WELL CANDIDATE FOR PPG CONFORMANCE CONTROL

Contact Information:

Name                     Title
Telephone               Email

Well Information:

Well Type: Injection Well or Production well?
Operator:
Field name:
Location:

Are you planning to apply the technology if your field is feasible for PPG treatment? (Yes/No)

I. The tests that can be cost-share for the proposed project

Followed is the important information we recommend to have for the proposed project, please fill in the following table.

<table>
<thead>
<tr>
<th>Information Recommended</th>
<th>If you have the data</th>
<th>If you do not have the data</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Date measured</td>
<td>Are you willing to do the test?</td>
<td>If yes, how much will it cost for the test?</td>
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<tr>
<td>Draw down or Build up Well Testing</td>
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<tr>
<td>Step-Rate Test</td>
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<tr>
<td>Injection/Production Profile</td>
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<tr>
<td>Tracer Test</td>
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<tr>
<td>Compositions of Formation Brine</td>
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<td></td>
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<tr>
<td>Crude oil viscosity</td>
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</table>

Notes: (1) Missouri S&T will be responsible for the explanation for all test results without your company cost.
(2) If you are willing to do the tracer test, Missouri S&T will be in charge of tracer selection, tracer sample tests, and explanation without your company cost.
(3) If you do not have composition of formation water and formation oil viscosity, Missouri S&T will be responsible to test it without your cost.
II. Other Reservoir and Production History Information

Followed is the information we may need when we evaluate the feasibility of PPG conformance control for your field. Missouri S&T will sign a letter with you to protect your proprietary data when Missouri S&T use the data.

A. Reservoir Description

1. Formation Name:
2. Size of study area:
3. Lithology:
4. Initial oil in-place:
5. Oil Saturation, Sor (%)
6. Connote Water Saturation, Swc (%)
7. Drive mechanisms:
8. Reservoir Heterogeneity (Naturally fractured or not)
9. Reservoir Temperature:
10. Formation water salinity (mg/L):
11. Reservoir Pressure (psi):
12. Oil Viscosity at reservoir, cp
13. Permeability heterogeneity (Permeability variation coefficient):
14. Permeability anisotropy (orientation):
15. Sedimentary sequence--distribution of vertical permeability increasing or decreasing within each layer?
16. Average Permeability (md)
17. Average Porosity (%)

B. Production/Injection History in Candidate Area

1. Current water cut (%)
2. Current oil recovery (% of OOIP)
3. Cumulative oil Production (bbl)
4. Cumulative water production (bbl)
5. Average Net Pay Zone thickness
6. Producer-Injector spacing
7. Injection water source
8. Injection water salinity

C. Information for an injection well that is target for conformance control treatment

1. Completion method
2. Completion Interval(s)
3. Injected fluids (water, CO₂ or other)
4. Cumulative injected volume (bbl)
5. Current injection rate (bbl/d)
6. Wellhead Injection Pressure (psi)
7. Bottom hole pressure (psi)
8. Net Pay thickness
9. No. of Injection Zones
10. Injection Profile
11. Tubing string inside diameter
12. Fractures present/details?
13. Thief zone(s) thickness

D. Information for producers in communication with target injection well
1. Distance between producers and injectors
2. Cumulative oil production
3. Cumulative water production
4. Current oil rate/day
5. Current water rate/day
6. Net zones (thickness)
7. Thief Zones (thickness)
8. Fluid level (distance above perfs)
9. Decline rate (%)

E. Related information

1. Previous Conformance control applications (reservoir)
2. Tracer injection and explanation (reservoirs)
3. Sand production
4. Wellbore schematic
5. Completion Diagram
6. Well work history
7. WOR vs cumulative oil production
8. Cumulative oil production vs cumulative water production
9. Comments on the thief zones