

FLO XLWR drag reducing agent lowered pipeline pressure, increased production

CHALLENGES

- Increasing pipeline pressures set a ceiling on oil production
- Production ceiling prior to applying FLO XLWR was a baseline of 262,000 BOPD
- Mechanical solutions to increase flow were cost-prohibitive, and adding bigger pipeline pumps could result in production loss due to potential shut-ins to perform the work

SOLUTION

- Lab testing Identified [FLO™ XLWR drag reducing agent](#) as a viable pipeline drag reducer, for its:
 - Proprietary, high molecular weight copolymer that dissolves quickly in hydrocarbons to give extremely high levels of drag reduction
 - Ability to lower drag at the pipe wall to move more fluid through the line, without coating the pipeline walls
 - FLO XLWR was injected at 40PPM for a limited field trial

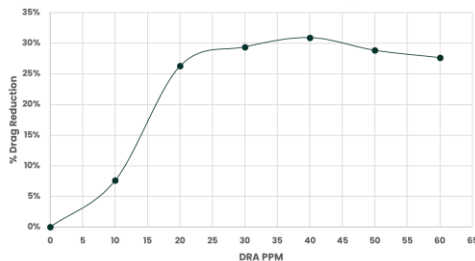
RESULTS

13,597 BOPD
Increase in pipeline flow rate

5.19%
Increase in production with pipeline pressure remaining below maximum allowable operating pressure (MAOP)

30%
Average reduction in pipeline pressure achieved while maintaining baseline production volume

FLO XLWR Performance Curve – June Update



FLO XLWR PPM v AVG DR%

PPM	AVG DR%
0	0%
10	8%
20	26%
30	29%
40	31%
50	29%
60	28%

FLO XLWR showed maximum drag reduction of 31% at an injection of 40 PPM.