



# **FIGHTING THE FEAR: GRAY AREA FLUIDS**

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# GRAY AREA FLUID SYSTEMS

FR	High Viscosity FR	<i>Hybrid Designs</i>	Ultra-Light Gel	Light Gel	Heavy Gel	Ultra-Heavy Gel
.25-1 gpt	1-10 gpt	<i>Mix of FR and Gels</i>	2-3 gpt/ 8-12#	4-5 gpt/ 16-20#	5-10 gpt/ 20-40#	up to 16 gpt/60+ #/Mgal
2-5 cP	5-30 cP	<i>Wide Range</i>	100-200 cP	300-500 cP	500-2000	Thousands of cP

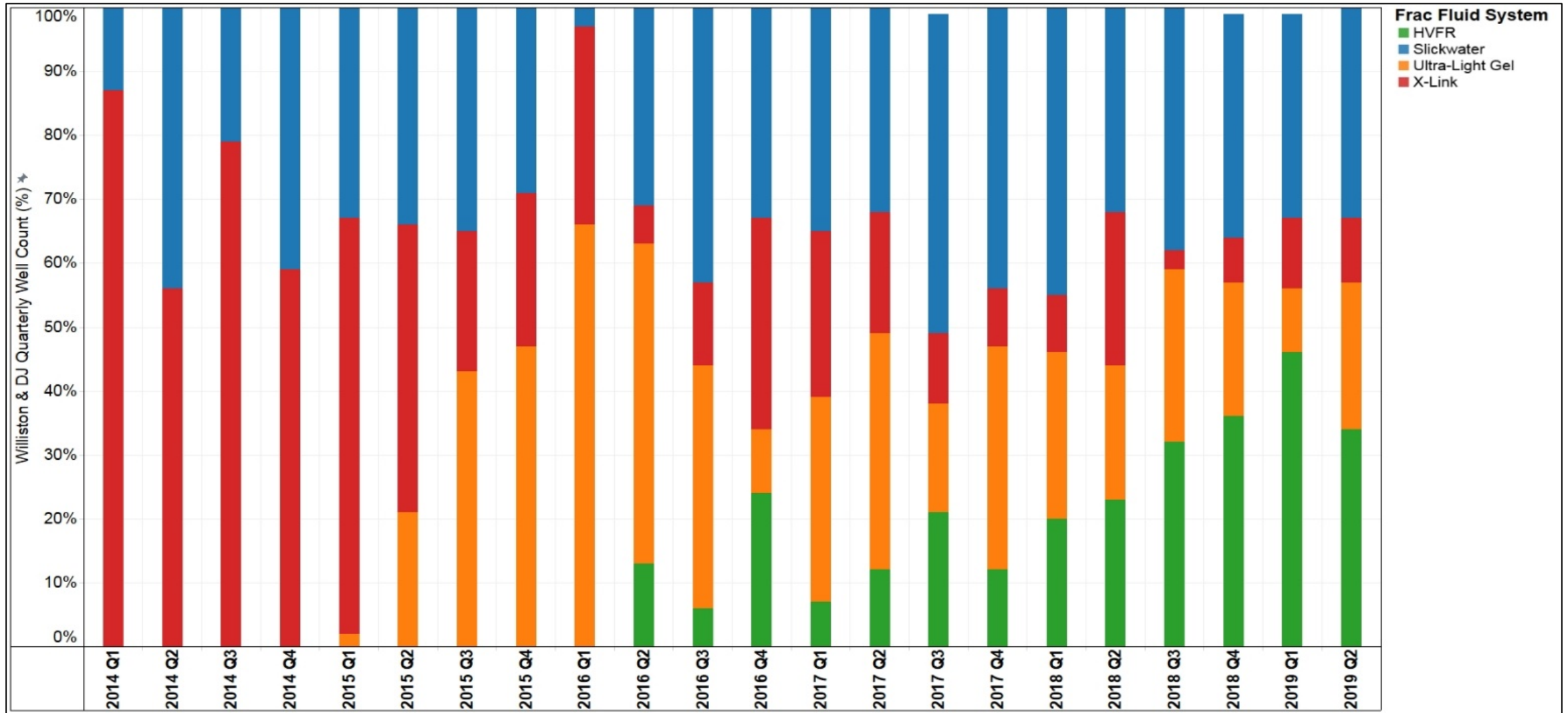
# FIGHT THE FEAR IN THE FIELD

- “Old Wives’ Tales” can be hard to kill in the field
  - “Never run FR above a 1 gpt setpoint because it will ruin a well”
  - “That fluid will never finish a job, its too weak!”
  - “Let’s start off with it heavier and then back it down once we have rate”
    - The stouter system has too much friction, thus they don’t get to rate so they never drop the loading
- Get field level personnel involved early in the process so there is ownership
  - Talk about design changes and goals
  - Provide data and lab time if possible
  - Ask for their feedback before, during and after the jobs

# FIGHT THE FEAR WITH DATA

	Stage Count	% of count	75% Placed	85% Placed	95%+ Placed
FR	31,851	32%	98.1%	97.4%	96.3%
HVFR	20,132	21%	98.2%	97.4%	95.9%
Ultra-Low Guar	27,180	28%	98.9%	98.2%	96.5%
X-link	18,900	19%	97.9%	97.4%	96.1%
Total	98,063	100%	98.3%	97.6%	96.2%

# GAINING TRACTION



# CONCLUSIONS

- There is no “Silver Bullet”
- Keep an open mind to new ideas
- Be mindful of “old wives' tales”
- Gray area fluid systems are catching on and gaining market share
- Where they work, they can lower costs and increase production
- Fight the fear with data
- Incorporate field level operators in design and execution planning