ReLease ReUse™

Performance Stimulation Fluid Systems

for produced water

NexTier

NexTierOFS.com

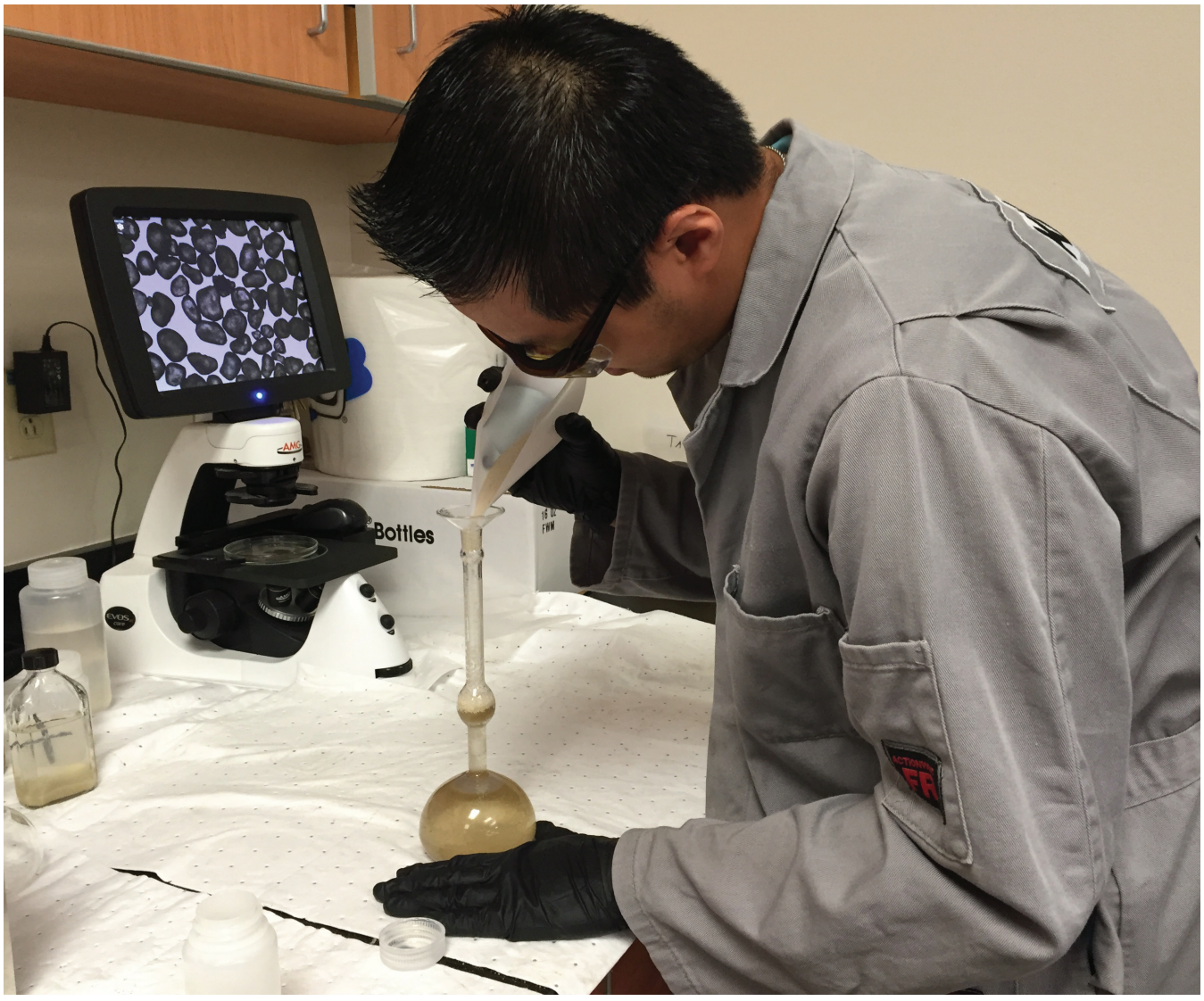
NexTier offers a comprehensive range of solutions that enable your operations to run produced water at any hardness, pH, mineralogy, temperature or salinity levels. Every system begins with an analysis of source water and cuttings from the well. Then, we recommend a custom solution to deliver the most effective operational efficiency and production.

The ReLease ReUse family of produced-water fluid systems is effective in all water scenarios, including 100% produced or flowback water. In areas where fresh water is an economical limitation, ReLease ReUse systems enable you to continue operations while reducing the cost and logistics associated with treating, hauling or reinjecting produced or flowback water.

Prior to field application of ReLease ReUse systems, NexTier performs testing on source water and formation samples to optimize fluid characteristics for your unique well environment.

Our custom chemistry is developed by a staff of specialists, with decades of combined industry experience, at NexTier's Innovation Center in The Woodlands, Texas.

To address local formation challenges before operations begin, our network of laboratories extends this expertise to the heart of every major basin.



ReLease ReUse Speed Fluid Systems

Our ReLease ReUse Speed formulations are available in a full line of slickwater systems with friction reducers (FR). To enhance performance, ReLease ReUse Speed systems are customized using a cationic or anionic FR for any reservoir or water conditions – even salinity exceeding 300,000 mg/L. These systems incorporate proprietary FRs, and they have been used successfully in produced and flowback water of all major shale formations since 2012.

Fluid System	Polymer	Breaker	Optimal Performance
ReLease ReUse Speed	Anionic/cationic polyacrylamide (FR)	Breakers are not recommended for slickwater systems with produced water	■ Any water salinity, even >300,000 mg/L ■ Water hardness >50,000 mg/L ■ pH >4.5 when using anionic FR ■ No pH limits when using cationic FR

ReLease ReUse Dry Fluid Systems

ReLease ReUse Dry systems offer cost-effective, dry-FR alternatives to emulsion systems. Similar to our ReLease ReUse Speed systems, this dry product incorporates proprietary FRs and has a proven history of handling the produced and flowback water of all major shale formations.

Fluid System	Polymer	Breaker	Optimal Performance
ReLease ReUse Dry	Anionic/cationic polyacrylamide (FR)	Breakers are not recommended for slickwater systems with produced water	■ Any water salinity, even >300,000 mg/L ■ Water hardness >50,000 mg/L ■ No pH limitation

ReLease ReUse Linear Fluid Systems

ReLease ReUse Linear fluid systems are natural or modified-natural polymers used without crosslinkers. Our custom designs take into consideration the unique environment of each well to ensure reservoir compatibility for maximum production. ReLease ReUse Linear systems provide an economic fluid option without compromising viscosity characteristics. The gelling agents used are available in dry or slurry form. Polymers used include guar (G) and carboxymethyl hydroxypropyl guar (CMHPG).

Fluid System	Polymer Product	Polymer Type	Breakers	Optimal Performance
ReLease ReUse Linear-G	KWG-111 L or D	Guar	KWBO-2	Any water condition within a pH range of 6.5 to 8.5
ReLease ReUse Linear-CMH	KWG-33 L or D	CMHPG	KWBO-2	■ Any water salinity, even >300,000 mg/L ■ Water hardness >50,000 mg/L ■ No pH limitation

ReLease ReUse Crosslinked Systems

Featuring proprietary gel stabilizers, crosslinked ReLease ReUse XB and ReLease ReUse XZ systems have been implemented and pumped since 2013 – mainly in the Permian and the Bakken. They provide the highest proppant suspension for fully crosslinked systems in reclaimed water applications.

ReLease ReUse XB System

This system is used in water up to 2,500 mg/L hardness and 100 mg/L in boron – with or without boron scavengers. The ReLease ReUse XB system has been widely used in the Permian.

ReLease ReUse XZ System

This system is applicable in any water condition – even the worst produced water. The ReLease ReUse XZ system is formulated with crosslinked CMHPG. It was first introduced in the Bakken.

ReLease ReUse XZG System

This produced water system uses crosslinked guar. It is applicable in water of any condition at temperatures up to 200°F.

Fluid System	Polymer Crosslinker	Buffer/pH Additive	Breakers	Differentiator	Target Basins
ReLease ReUse XB	■ KWXB-14 ■ KWXB-20 ■ KWXB-19 ■ KWXB-22	■ KPH-14L ■ KPH-15 ■ KPH-16	■ KWBO-2 ■ KWBO-13	■ Water hardness up to 2,500 mg/L ■ Boron up to 100 mg/L ■ Temperatures up to 250°F	■ West Texas ■ South Texas ■ Mid-Con (SCOOP, STACK)
ReLease ReUse XZ	■ KWXZ-4 ■ KWXZ-5 ■ KWXZ-6	■ KPH-2 ■ KPH-4	■ KWBO-13 ■ KWBO-8	■ Extreme salinity ■ Temperatures up to 280°F	■ Bakken ■ West Texas
ReLease ReUse XZG	■ KWXZ-4 ■ KWXZ-5 ■ KWXZ-6	■ KPH-2 ■ KPH-4	■ KWBO-2 ■ Encap-LP ■ KWBO-13	■ All produced water ■ Low temperatures <200°F	■ West Texas ■ Bakken ■ Mid-Con (SCOOP, STACK)

NexTier is a leading provider of integrated completions, focused on the most demanding land basins in the US. Across the nation, we are committed to helping the most demanding producers accelerate production through proven, integrated completion solutions. Our focus on safety, innovation and efficiency driv es leading results for our customers.

NEXTIER

NEX-19-263

NexTierOFS.com