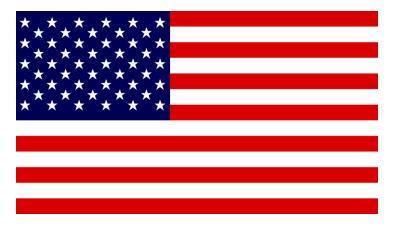
Remove polymer buildup

with
ALPHAZYME D-400PB
Polymer Buster

June 2025





Agenda

Introduction & discovery

Evaluation of wells

Fracture Restimulation

Water floods





The problem of removing polymer buildup

• We have been making a PHPA stick for drilling and had problems cleaning tanks to remove the polymer, so we developed a surfactant that helped penetrate the polymer and a nanoparticle additive that broke the polymer chain. This was visible under a microscope, so we took this product to the field and began working to improve it for down hole and in surface equipment that has skin damage and gummy bears from polymer.

Skin damage of well formation

Many times, we have been asked to evaluate different systems damaged by polymers. From wells that were damaged during fracking, RE-stimulation, and improper polymer injections on water floods. Often the cause is, using incompatible chemistry that causes gummy bear-solids to build up down hole or over treatment in general. We have applied our AlphaZyme D-400 PB at I and 2 GPT in restimulations to clean up entire systems.

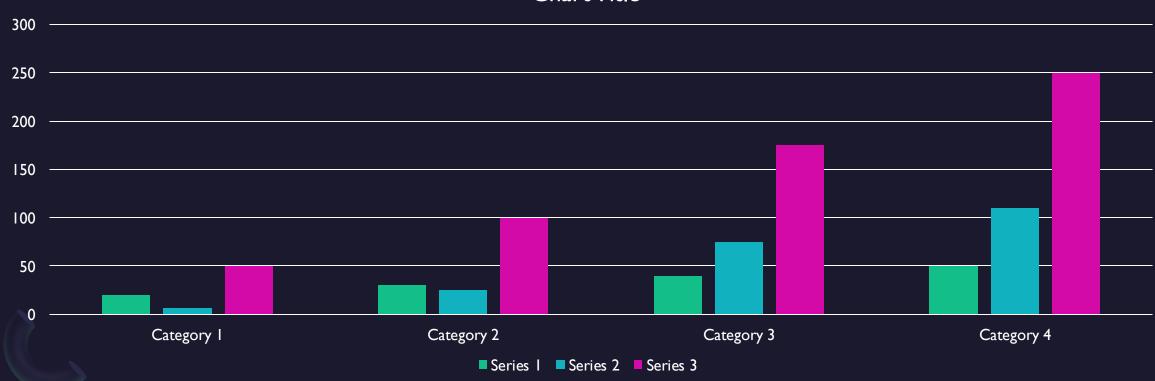
Our AlphaZyme D-400 series comes in product lines that target specific API gravity oil.



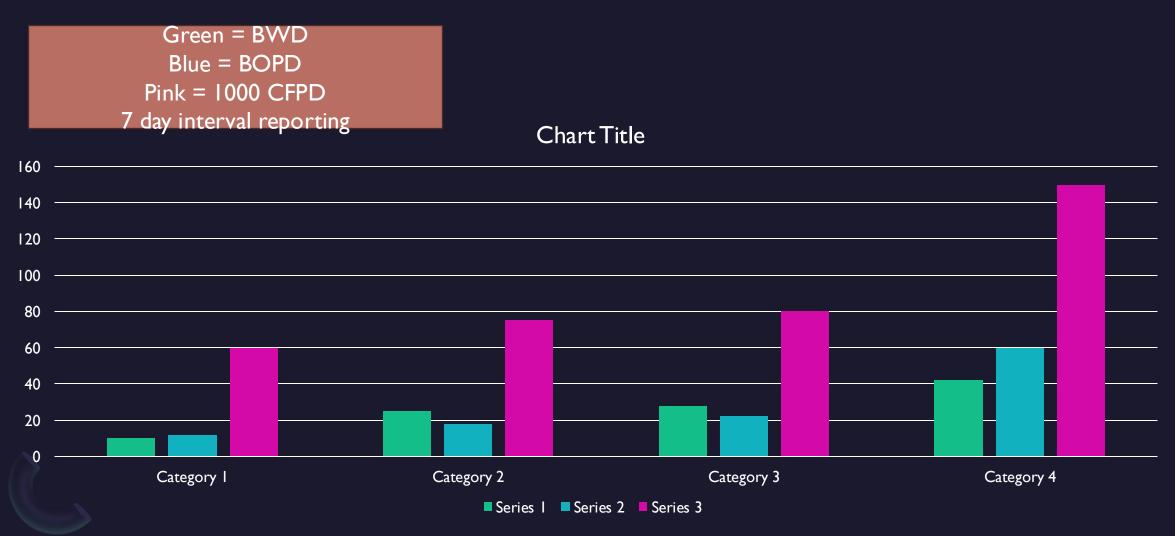
South Texas Chalk Gas Well 2020

Green = BWD
Blue = BOPD
Pink = 1000 CFPD
7 day interval reporting

Chart Title



South Texas Chalk Gas Well 2020



Water Flood system Clean up

- In several cases Companies have been using a polymer water flood to help increase oil production. In some cases, the overuse of the polymer has caused well blockage and formation damage.
- In extreme cases some wells have been completely plugged off and need to be stimulate and cleaned.
 Complus Trading North America, LLC has developed a product line that can be used to bullhead directly into the well and soak for 10 to 14 days.
- In water flood injections our products can be added into the water injection system directly to remove polymer damage throughout the water flood. This process can take some time and is done in a 3 stage process.
- 1. Evaluate each production well, independently for possible stimulation and after wells are stimulated go to step Two.
- 2. Begin a I week injection of 4 GPT into the flood injection well
- 3. After I week reduce injection rate of chemical to 3 GPT for I week.
- 4. After 2 weeks drop to 2 GPT for 3 weeks.
- 5. After 5 weeks the rate can be dropped 1 to .5 GPT depending on the wellhead pressure targets.

Central Texas Sandstone water flood Well 2020

Total production on a field of 25 wells with 8 injector wells.

Data entry every 30 days

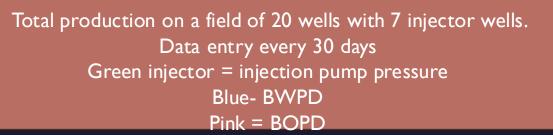
Green injector = injection pump pressure

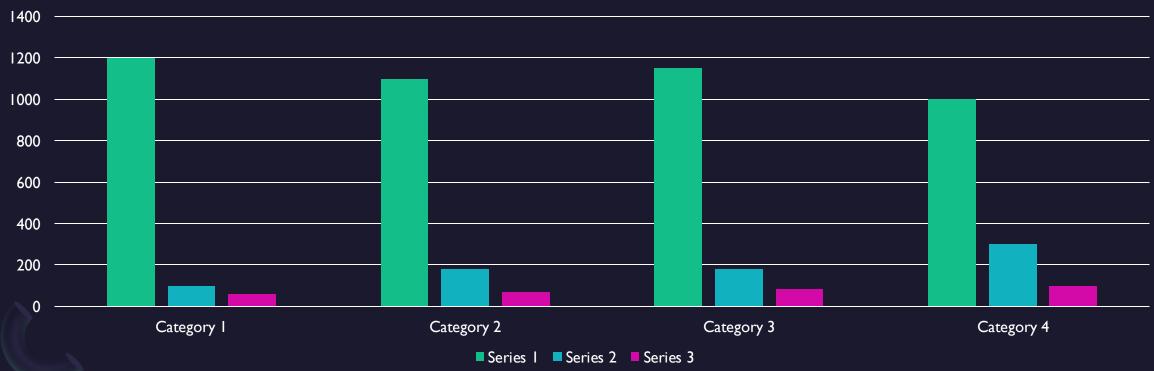
Blue- BWPD

Pink = BOPD



Central New Mexico Sandstone water flood Well 2020





The way to get started is to quit talking and begin doing.

Walt Disney

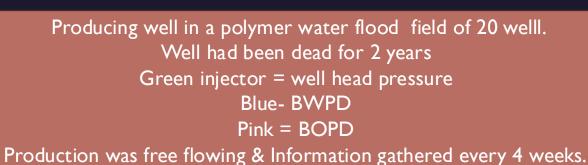


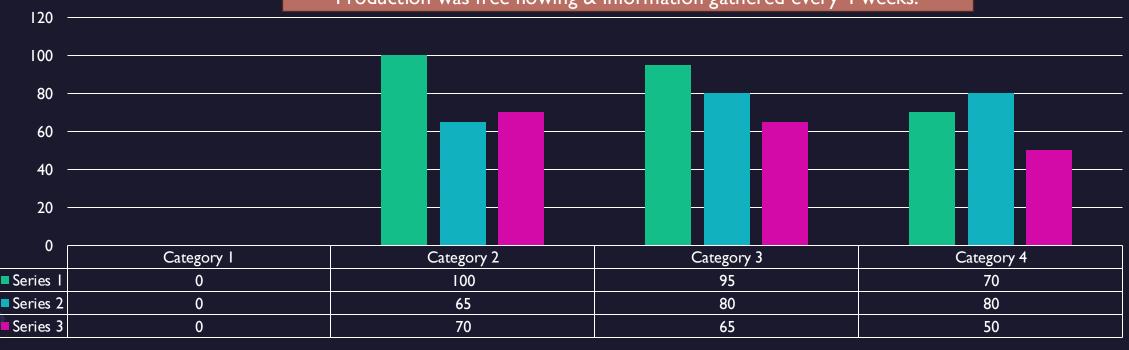
The next 2 slides are from 2 wells that were completely plugged off due to polymer waterflood systems for 2 years. After a bull head treatment, they were shut in and forgotten during covid for 2 months, then turned on.



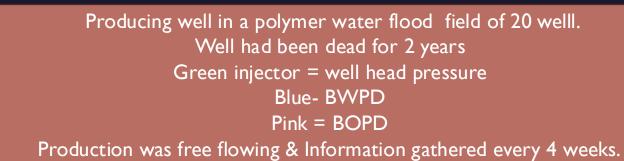
AlphaZyme-D-400PB

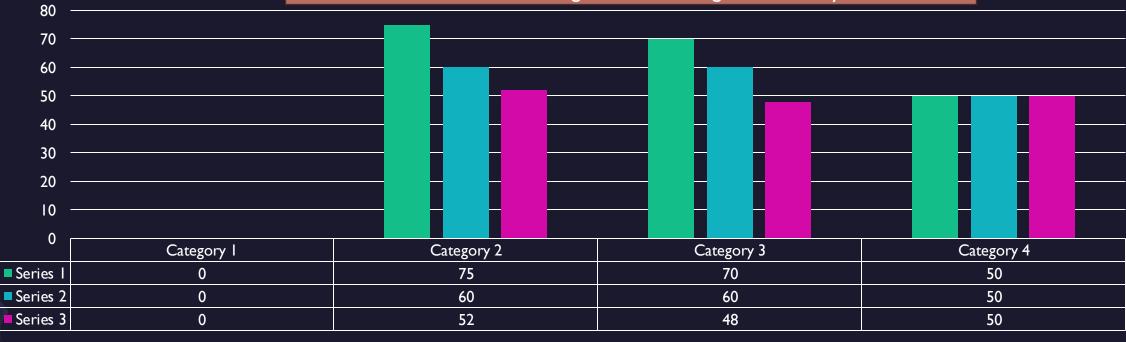
China Sandstone water flood Well 2020 Well #3

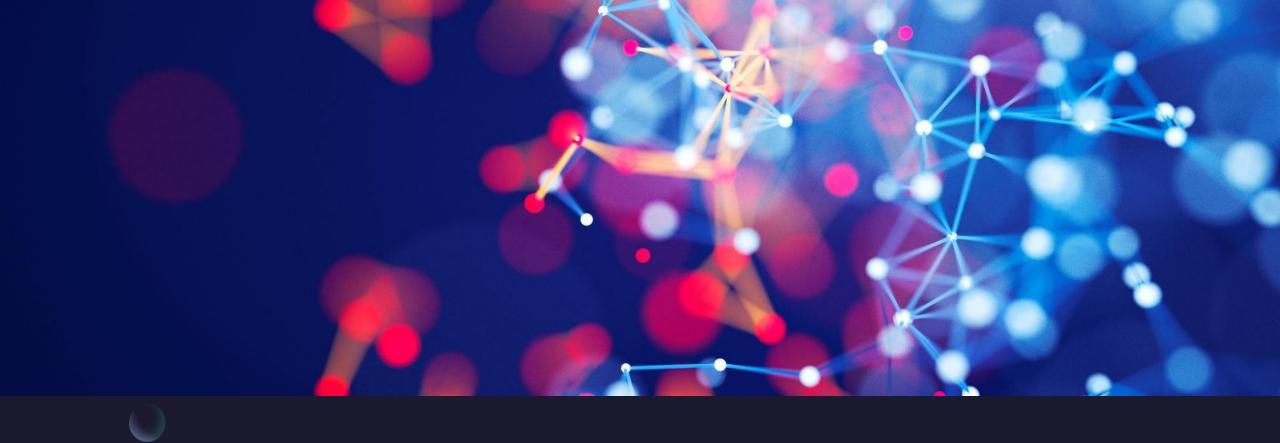




China Sandstone water flood Well 2020 Well #7

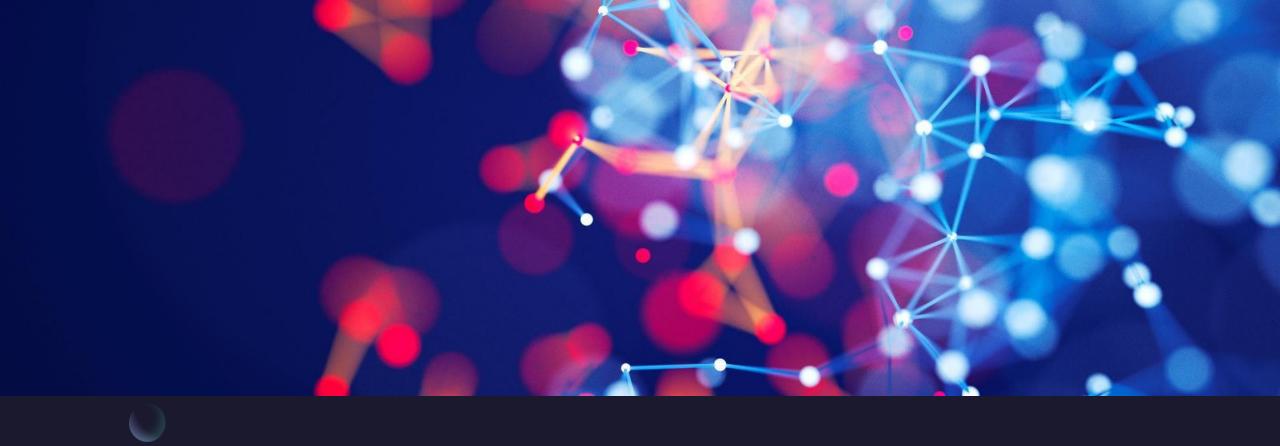






Water Flood Injection

After producing wells have been cleaned up with bull head applications, we suggest starting injection of the AlphaZyme D-400PB into the injection well at 4GPT for I week, and 3 GPT for I week, then 2 GPT for 3 weeks. After the 5 weeks drop to I GPT continuously. This wlll help clean up the formation and improve the over all production.



Summary

Complus Trading North America, LLC can offer a variety of products for well stimulation and well clean up, specifically for polymer damage. In Fracturing new wells, stimulating older damaged wells, and for water flood damage by polymer. The nano particle will also help change wettability of the rock to water wet and help increase oil production. Our particle also cut the polymer chain down to help remove all skin damage.



Thank you For your time.

Please contact us for more information and learn if our EOR Alpha products are the right choice for your oil wells.



AMERICA

Complus Trading North America LLC 5151 Katy Freeway, Suite 140, Houston, TX 77007, USA info@complustrading.com Office: +1 830.200.5119 www.complustrading.com

WEST EUROPE

Complus Systems
Via Lavoratori Autobianchi 1,
Building 9,
20832 Desio (MB), Italy
info@complusystems.com
Office: +39 02 8719 9397
www.complusystems.com

EAST EUROPE

Complus Systems
Vabaõhumuuseumi tee 5/2-15
13522 Tallinn,
Estonia
info@complusystems.com
Office: +372 5010996
www.complusystems.ee