

# Optum's DRA technology boosts capacity of Eagle Ford pipeline

**Flow Optimizer™ more than doubles production capacity for midstream pipeline company transporting crude from the Eagle Ford to Corpus Christi, Texas.**



## EAGLE FORD, TEXAS

### Challenge

To immediately increase capacity

The hydraulic fracturing and directional drilling revolution in the Eagle Ford shale basin has led to huge gains in production of light crude (> 40 API) beyond the pipeline capacity available in the region. Traditional solutions, such as additional lines or pumping equipment, required long lead times and significant capital investments. A more immediate solution was needed.



### Solution

Cost effective use of DRA

DRA technology was an excellent solution as it could be deployed within days. Optum was given the opportunity because of the company's new advanced technology for light crude oil. The presence of the pig launcher at the 40-mile marker presented a point of shear degradation that could limit the viability of the DRA solution. Working with the midstream operator, Optum designed an evaluation protocol requiring three dosages to determine Flow Optimizer's effectiveness at increasing the capacity and to measure the effects of the pig launcher on overall performance. Additionally, a maximum flow rate evaluation was included in the protocol to estimate the maximum drag reduction capability of the Flow Optimizer product.

Optum brought to the site a mobile, wholly enclosed tank and injection system, fully instrumented for local or remote operation. Optum's Flow Optimizer is non-hazardous and formulated to be stable and easy to handle. During the three-day evaluation, it required no mixing. The various dosages were carried out safely and with minimal disruption to the pipeline's normal operations.

## CASE HISTORY

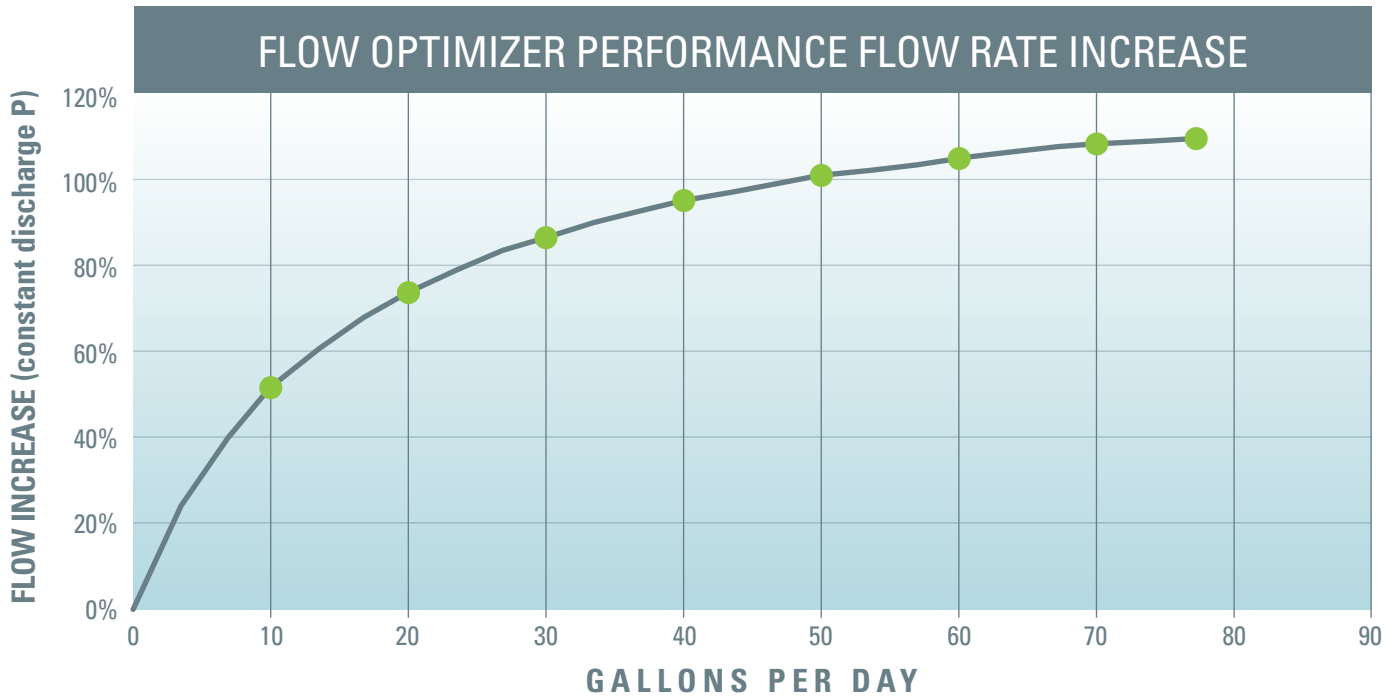
### Results

#### Performance exceeds expectations

Flow Optimizer's rapid dissolution properties were evident and expectations were exceeded for each dosage.

Dosage	% Drag reduction at max flow rate	Max Flow rate BPD	Discharge Pressure [psi]
First	54	70,000	1,250
Second	76	99,500	1,260
Third	77	96,000	1,250

Flow Optimizer demonstrated it could reliably enable greater than 100% increase in capacity for the light crude system with as little as 15 ppm. No serious performance losses were measured passing through the pig launcher site and a maximum drag reduction of 86% was demonstrated. With this performance information, the pipeline operator can design injection schemes that minimize the cost of the overall operation while increasing profits with the additional throughput he could now accept using DRA.



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