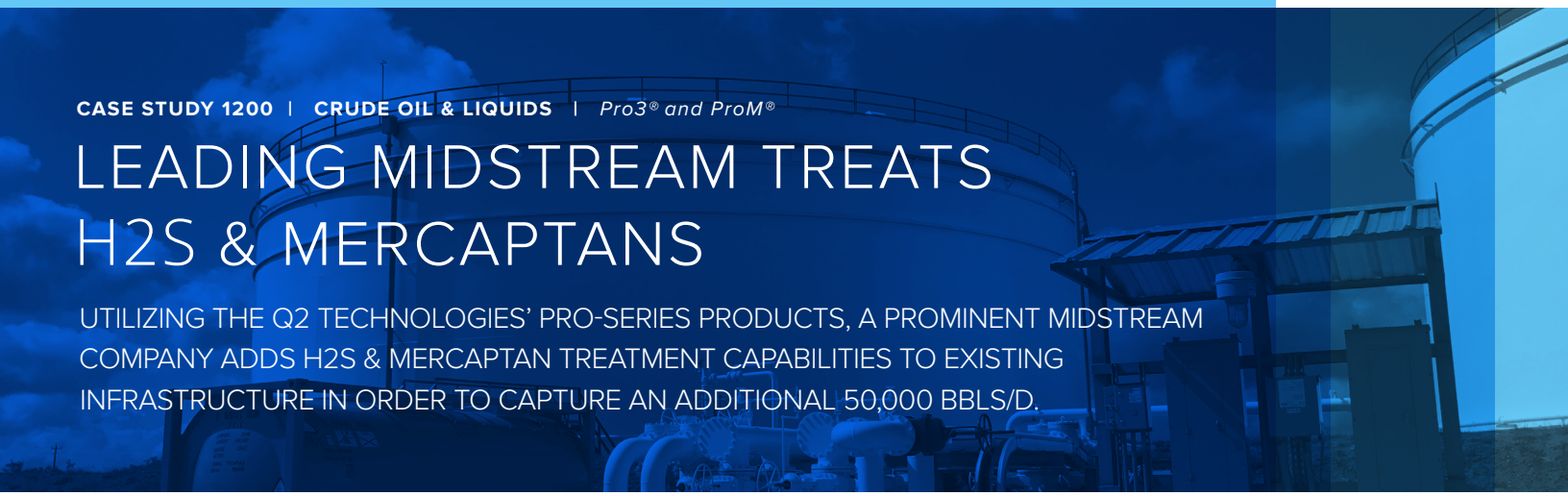
Q2 Technologies
A Chemical Company



CASE STUDY 1200 | CRUDE OIL & LIQUIDS | *Pro3® and ProM®*

LEADING MIDSTREAM TREATS H2S & MERCAPTANS

UTILIZING THE Q2 TECHNOLOGIES' PRO-SERIES PRODUCTS, A PROMINENT MIDSTREAM COMPANY ADDS H2S & MERCAPTAN TREATMENT CAPABILITIES TO EXISTING INFRASTRUCTURE IN ORDER TO CAPTURE AN ADDITIONAL 50,000 BBLS/D.

Q2 Technologies; a former subsidiary of Quaker Chemical which developed the MEA-Triazine scavengers used world-wide today, has brought to market the Pro-Series which includes the **Pro3®** and **ProM®** non-amine H2S and Mercaptan scavenger, respectively. The Pro-Series is the next generation of scavengers replacing MEA-Triazine in liquid hydrocarbon streams.

The **Pro-Series** is the result of a need to reduce fouling created by amine based scavengers in refineries, production streams and crude oil terminals while improving mercaptan removal performance compared to that of MEA-Triazine.

CHALLENGES

- A leading Midstream company in the Permian had an active Producer bringing 50,000 bpd of crude oil on pipe into their facility, but was faced with the challenges of high levels of H2S and Mercaptans.
- High volumes of non-triazine scavenger from a 3rd party were being used but failed to meet spec. and was fouling gathering lines.
- Producer faced risk of being shut-in so Midstreamer reached out to **Q2 Technologies** to provide a non-triazine solution.

TAKE-AWAYS:

- **Pro3®** and **ProM®** chemistries allowed customer to consistently meet H2S and Mercaptan specifications that 3rd party chemistry was unable to reach.
- Overall cost of treatment was reduced by >25%.

SOLUTION

- A combination of the **Pro3®** and **ProM®** was implemented into the Midstreamer's overall system, not only in the Permian, but also at the Gulf Coast where they had additional infrastructure. Both products work in tandem.
- **Q2 Technologies** in combination with the Midstream's facilities team installed injection pumps, placed storage vessels, and connected the system to their SCADA system.
- End goal was achieved: Crude volume treated to allow volume to flow on pipe and not tu turn away potential throughput volume.

RESULTS

- Pre-Treatment Mercaptan level: 200 -600 ppm w/w per UOP-163/D-3227
- Post-Treatment Mercaptan level: meets spec of <75 ppm
- Pre-Treatment H2S level: 4,000 - 5,000 ppm v/v per ASTM 5705
- Post Treatment H2S level: <10 ppm.