

Turnaround Engineering and Modeling

Project Details

Client: Confidential

Industry: Oil & Gas

Scope of Services: Engineering,
Piping, Turnaround

Governing Body: EPA, PSM, API

Customer Benefits

Environmental Safety:

Improved relief valve operation and emissions requirements per EPA standards.

Savings:

The shop scan validation process allowed for significantly less field fit welds. This decreased costly field welding and increased the amount of shop hydrostatic testing and weld x-ray. Reduced field testing saved valuable turnaround schedule.

Additional validation of piping being fabricated saved multiple changes that would have been completed in the field, during the turnaround. Based on the data collected, this savings was more than \$200,000.

Process Improvement:

LeanTrak has completed engineering for multiple turnarounds. The process improvement of shop verification saved our client field rework during the turnaround when resources are limited and construction costs are inflated.

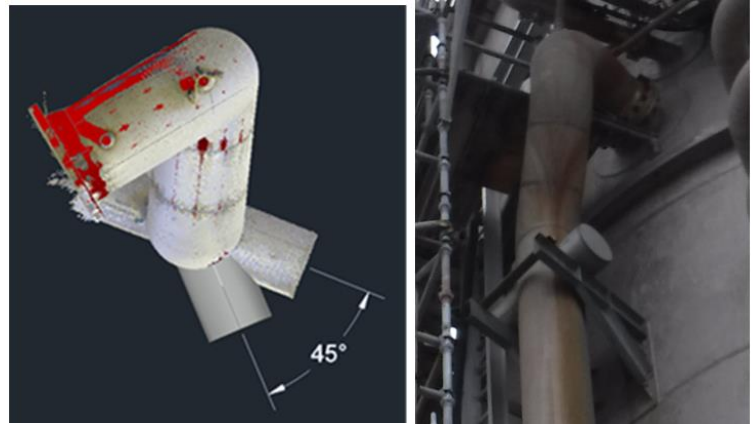
Let's Get in Touch

Project Engineer: Steve Bigelow, PE

Email: projects@leantrak.com

Project Description

LeanTrak was selected to provide engineering services to complete construction packages for projects that were determined too difficult to execute internally. These packages required laser scanning and process calculations, as well as field and shop verification.



LeanTrak Solution

- Engineers at LeanTrak prioritized the projects to start process engineering and laser scanning once the project was awarded due to the critical timeframe.
- Client engagement was established early and frequently throughout the project for scope buy-in and to expedite the review process.
- Once projects were approved for fabrication, LeanTrak worked with multiple fabrication shops for scheduling visits and additional laser scanning.
- LeanTrak overlaid of the modeled design piping with the field scan and the shop fabricated piping scan to ensure dimensional accuracy.

Project Statistics

- Over 100 piping packages completed in 5 months.
- Estimated \$5,000,000 in construction.
- Less than \$2,000 in construction field changes (0.04%).