



Reducing Footprint and Adding Capacity in the DJ Basin

WORTHINGTON'S SEPARATION TECHNOLOGY:

REDUCED equipment footprint by **44%**

IMPROVED both purity and efficiency

SIMPLIFIED maintenance and operation

ENHANCED equipment longevity

STRENGTHENED safety performance

WORTHINGTON INDUSTRIES HELPED THIS OPERATOR IN THE DJ BASIN TACKLE A HOST OF FIELD SEPARATION CHALLENGES—REINVENTING POTENTIAL THROUGHPUT WHILE ELIMINATING EQUIPMENT AND REDUCING A NUMBER OF RISKS AND HASSLES.

With significant investment and a changing regulatory environment, the DJ Basin is a play in which operators need to make the most of assets, not just in the long-term but right now. With a proven understanding of what it takes to optimize surface separation and processing in the region, Worthington Industries was able to help this independent operator get more with less.

CHALLENGE

The operator installed a conventional “VHLP” setup. This 150-square-foot of equipment took up a lot of space and was the source of tremendous aggravation.

Specifically, the system offered disappointing capacity and retention performance, with the inlet preheat coil piping taking up valuable treater space. Sand complicated everything, settling on the coil and demanding maintenance downtime. Water carryover was excessive. And the firetube’s placement within the water section meant exposure to risk of premature pitting and catastrophic corrosion.

Maintenance access of any kind was tricky, with removal of the head flange required to manage sand buildup. It was time to find a better solution.



SOLUTION

Worthington Industries specified: a single, high-pressure horizontal treater (36”OD x 13’L) that would improve separation performance using only 66-square-feet on the well pad as compared to the 150-square-foot conventional setup. This equipment:

MADE SEPARATION MORE EFFICIENT

- Slashing the amount of fuel gas needed to maintain treatment temps
- Removing free water/sand prior to the oil treating section
- Improving throughput by utilizing more of the cross-section space inside the unit

SIMPLIFIED SERVICE THROUGH EASIER ACCESS

- Allowing access to internals through easily removed inlet head
- Employing an external bridle for in-service oil/water interface adjustment
- Enabling crews to deal with sand without removal of head flange

REDUCED OVERALL EQUIPMENT FOOTPRINT

- Eliminating the high-pressure separator with inlet preheat coil piping
- Delivering more treatment capacity and better separation in a smaller vessel
- Allowing for smaller pad size or more vessels per pad

IMPROVED SAFETY PERFORMANCE

- Enhancing protection of firetube; less corrosion, fewer hot spots, etc
- Eliminating the risk of possible corrosion-based preheat coil piping failures
- Creating a less cluttered well pad for better situational awareness

SUPERIOR WINTER PROTECTION

- Housing controls with insulated enclosures featuring tight-seal weather stripping
- Preventing line freeze-ups during sub-zero ambient operating conditions
- Assuring that water and dump lines are free from cold-related stress and failure