

## Case Study

### Oil and Natural Gas E&P Company Water on Demand – Colorado, USA

*Filtering water supply for hydraulic fracturing operations in the Wattenberg field.*

#### Background

The customer is one of the largest Oil & Gas operators in the Denver-Julesburg Basin in Northern Colorado. As this field can include residential areas adjacent to drilling operations, it was important for the company to minimize the effect of operation on their neighbors.

Instead of trucking water to the drilling sites, they installed several permanent pump/filter stations with an underground pipe distribution network.

This network includes 150 miles of pipeline over an area of 600 square miles. Benefits include reduced truck traffic and emissions, as well as reducing dust, noise, and road impact.

Currently two permanent pump/filter stations are operating, with a third scheduled for the future. In addition, the customer has several portable smaller skids to supplement operations.

#### The Challenge

When the customer began operations in the Wattenberg field, they had a small operation using mechanical filters from an Amiad competitor. When expanding operations, they decided to take Amiad equipment that had been purchased for filtering coal bed methane reinjection water in the Powder River Basin. This equipment (no longer used in the PRB) was refurbished and reconfigured in Gillette, Wyoming and installed in the first Colorado pump/filter station.

With experience operating Amiad at this station, the customer determined that Amiad would be the preferred filter supplier.

The water source for the fracturing operations varies from lake water, storage reservoirs to irrigation ditches. This water has extreme variations in TSS levels throughout the year; and the Amiad system had to handle this while supplying Water On Demand.



## The Solution

Upon installation of the first refurbished skid, the six EBS filters were equipped with 100 um screens to replace the original 25 um screens. As the project scaled up, a second filter skid with another 6 EBS filters was installed. A third skid, also with 6 EBS filters, was ordered and is currently awaiting installation.

The second and third skids were custom designed for an operating pressure of 240 psi to ensure the water could be distributed throughout the entire pipeline network.



## The Results

The Amiad filters have performed very well, allowing the customer to complete the oil wells by supplying water when needed to each wellhead; with minimal disturbance.

This infrastructure eliminated 330,000 tractor trailer trips and eliminated the need to consume 1.1M gallons of diesel fuel for these trips.