

Project Summary

QPSE performed engineering, design, and procurement support for the installation of a greenfield midstream compressor station, Crestwood Station 8, located in North Dakota. Every piece of equipment was specified on data sheets and submitted for bids by QPSE. A bid tab was then created and submitted to Crestwood for final decision and purchase.

This project included five 5,500-hp reciprocating Ariel compressors/motors driven with interstage cooling, a 60,000-gallon slug catcher, suction and discharge filter coalescers, a Glycol dehydration unit with contactor tower and Btex unit, water and condensate storage tanks along with a vapor recovery unit, and a final discharge meter to measure the gas leaving the station. Methanol tanks were installed along with an injection pump to allow for extra protection of hydrates forming in the line after leaving the station. The North Dakota location and climate created some difficulties of this application due to ambient temperatures of -40°F to 100°F. The concern for hydrate formation was key in designing and handling liquid dropout in the gas stream due to the low end of the ambient temperatures. The low ambient temperatures presented extreme complications with the process conditions of the gas allowing hydrate formation to form at 35°F and was managed by installing heat trace and insulation on all piping and equipment.

Crestwood required a tight schedule for a complete in-service date within 12 months, which proved to be a very tight schedule to meet since they requested QPSE to organize vendor drawings to complete our final design and to make sure equipment would be on-site ready to install and commission before the end of November 2018. QPSE met the requirements and hit all scheduled dates with only a few hold clouds on our drawings but worked with contractors to get them what they needed when required.

QPSE worked closely with Crestwood and held weekly internal and client update meetings, which allowed us to stay in constant contact, ensuring confidence that the job was on schedule and ensuring that we effectively answered questions that arose.

LOCATION

North Dakota

AWARD DATE

November 2017

COMPLETION DATE

November 2018

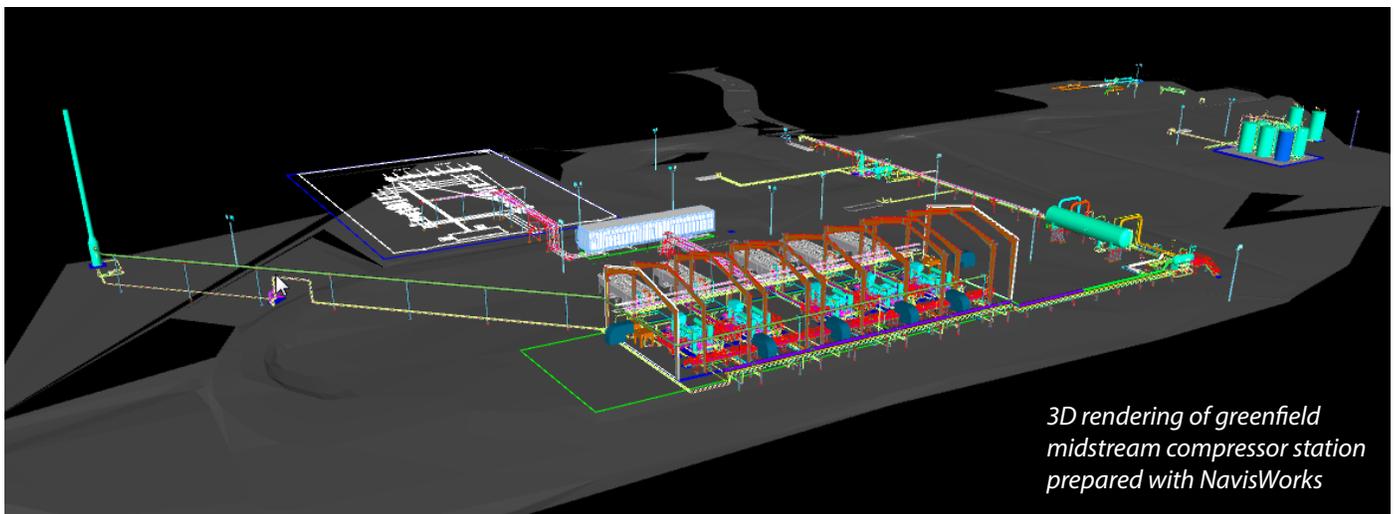
SERVICE OFFERING

Facility

HIGHLIGHTS

Five 5,500-hp reciprocating Ariel compressors

Extreme temperature conditions



3D rendering of greenfield midstream compressor station prepared with NavisWorks