

Powder River Basin, Wyoming, USA

200 MMSCFD integrated turnkey (ITK) cryogenic plant

ITK expertise — from engineering and design, to manufacturing, onsite construction, commissioning, and start-up — including balance of plant.

Enerflex engineered, designed, procurred, manufactured, constructed, commissioned, and started-up a 200 MMSCFD cryogenic plant integrated with a 10,000 BBL/D stabilizer — which more than doubles the customer's processing capacity at the heart of its pipeline network.

A two-tower stabilizer design was selected to minimize the overhead compression requirements and enhance operability. The plant specification included a stripper, stabilizer, fractionator, and absorber towers; three molecular sieve beds; a 5,000 HP CAT 3616 A4 two-stage with Ariel KBZ/4 residue gas compressor package — capable of moving 50 MMSCFD at 1,440 psig; and a 3,500 barrel harp-style slug catcher. Onsite storage is provided for 630,000 gallons of NGL and 15,000 barrels of condensate.



Outcome

The customer requested a custom solution that maximized propane recovery, instead of typical ethane, though future expansion into ethane is feasible. By focusing on higher value propane at a 94% recovery rate, this facility avoids the expense of a refrigeration system and saves energy. Enerflex's flexible design offers the ability to recover different reid vapor pressure (RVP) products to maximize both condensate value and NGL value, depending on the plant feed composition and market conditions.

Enerflex provided a one-stop solution to engineer and procure the total balance of plant design necessary to integrate two processing units, as well as manage the construction and commissioning phases of the plant. Enerflex's site team oversaw a horizontal contracting strategy that peaked with over 400 people.

