



**Heidi K. Casper, Process Engineer**

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## SUMMARY OF QUALIFICATIONS

**River City Engineering, Inc.**, Lawrence, Kansas USA 2009-Present

Process Engineering Consultant for the Oil & Gas Industry providing design and technical support for gas and liquids processing/handling projects.

- Performed debottlenecking study for 200MMSCFD gas processing plant in Louisiana
- Assisted on performance test for 25 MMSCFD gas processing plant in West Texas
- Facilitated PHA revalidation for 25 MMSCFD gas processing plant in West Texas
- Performed a condensate piping study for a 25 MMSCFD gas processing plant in West Texas
- Facilitated PHA for new 40 MMSCFD compressor station in West Texas
- Assisted on PHA for a new 200 MMSCFD gas processing plant in West Texas
- Revised and fixed R3 Monthly Report for Gas Processing Plants for two facilities in West Texas
- Performed PSV study for client with approximately 130 valves across 3 compressor stations
- Assisted in PSV remediation study for client of approximately 50 valves
- Supported client during preliminary engineering for 24,000 bpd product purification process, focusing on arsenic removal. Scope of work included creating PFDs.
- Assisted PHA revalidation for 80MMSCFD natural gas processing plant in Eastern Louisiana
- Cause and effects study for main control system in a 80MMSCFD natural gas processing plant. Helped with P&ID revisions.
- Analysis of safety systems for a natural gas processing plant using SAFE charts.
- Study of tank filling options for shipping using dynamic simulation, with emphasis on heat transfer effects of tank filling.
- Preliminary engineering design of a depentanizer to reduce the concentration of sulfur and arsenic in NGL product. Optimized conditions to meet different specification classes. Provided cost estimates. Also studied the effects of changing operating conditions in debutanizer to provide the same effect.
- Study to evaluate viability of dividing wall column in a C2-C3-C4 separation train and provided cost estimates.
- Analysis of dehydration methods and setups with cost estimates to provide the most cost-effective option for a general natural gas dehydration case.
- Viscosity study of Dowtherm T heat transfer fluid in start-up conditions.
- Study to determine the best equation of state to predict the Joule-Thomson inversion curve by deriving the JT coefficient from thermodynamic principles.
- Updated and modified in-house programs for equipment sizing and pricing.

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## EDUCATION

**University of Kansas**  
Lawrence, Kansas

B.S. Chemical Engineering, 2005 – 2009

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## PROFESSIONAL MEMBERSHIPS

Engineer in Training (EIT), Kansas  
Gas Processors Suppliers Association