

CASE STUDY: PROCESSING FACILITY DESIGN

Processing Solutions



PROJECT OVERVIEW

GCC was presented with a simple requirement of installing a compressor station designed for 20 MMSCFD. After a review of the tariff conditions and respective field gas analysis, we reported to our client that in order to meet sales specifications they would require several added components. These necessary additions included dehydration, a BTEX condenser, a flare, and CO2 amine treating. Based on the gas analysis, as an option to offset the cost, we suggested the client could treat the gas inexpensively and pay for the added equipment through NGL sales.

ACTION

We identified two main sales tariff conditions of concern, the HCDP and CO2 output. The client was previously aware that CO2 was an issue. Based on vendor input only, their initial plans did not include any dew point control. We utilized the same vendor to include a mechanical refrigeration unit to chill down to -20 °F with an electric drive chiller.

Waste gases needed to be combusted and our group added a flare and knock-out to take care of the amine flash and glycol still/flash vapors.

Produced water is collected via a pipeline at this facility and comingled with all the facility dumps via a gun barrel tank. Weir-over for condensate allows trucking of separated liquids. Our team managed to avoid a mishap over design on the tanks by demanding a properly built gun barrel tank. The tank vendor missed the mark on gun barrel height and the GCC team managed to avoid a “tank stand” and get the twenty foot high (500 BBL) required to weir to the twenty foot high tanks (400 BBL).

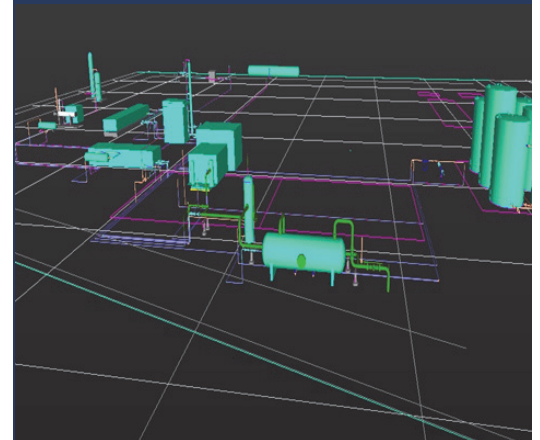
RESULT

A drop in gas prices after the construction of this site added to the value of our involvement. The facility could meet specification for sales gas and additionally, from day one, it began to produce valuable Y-Grade liquids which a local hauler was more than ready to pick up. The sales of these liquids enabled profitable production.

Project at a Glance

Location	Piceance Basin , CO
Project Type	Design for 20.0 MMSCFD
Facility Review	Tariff and gas analysis
Challenges Identified	HCDP, CO2 and dew point control
Solution	Added: Dehydration, BTEX Condenser, Flare, and CO2 Amine treating
Results	Met specs; new production Y-Grade liquids

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