Do You Want To Build a Cryo?

Executing a successful gas processing midstream project
requires experience and the right connections within the industry.

There are several quality providers of cryogenic gas processing plants. These suppliers may have great expertise in the design, fabrication, and installation of cryogenic gas plants. However, they are not the owner's engineers. In fact, it is unfair to expect them to be! When oil prices fell, many companies cut their engineering staff that was already lean. This resulted in a loss of expertise within the company. Suppliers have had to work hard to fill this gap; knowing a bad project, even if the fault of the owner, would hurt their reputation in the market.

Newpoint had the pleasure of working with an honest, hardworking cryo plant supplier in the Delaware basin on two different projects. The supplier worked to ensure project success. We were able to provide the owner with the engineering and operations expertise to integrate their existing work with their desire to be in the "midstream" business.

This relationship started several years before our customer commissioned their first cryo plant. Newpoint was first contracted to provide P&ID work of existing well sites and layout and installation of new well sites. This morphed into analyzing the engineering and economics of JT plants and refrigeration plants to meet pipeline hydrocarbon dew point specs and as additional revenue sources. When the drilling proved successful, this morphed into a 35 MMscfd cryo plant.

Questions to ask before getting a cryo:

Plant Capacity
What are the drilling schedule and decline curves?
Is third party gas available?
These answers might lead to a mechanical refrigeration system being the better choice.
Will there be a significant amount of condensate collected at the plant inlet?
If possible, should this condensate be stabilized and sold as oil maximizing revenue?

Plant Location
Where should the plant be located to efficiently gather the gas in the area?
Where will the NGL's and residue gas be sold?
What pipelines are closest?
Should the NGL's be trucked out or is an NGL pipeline available?

Field Optimization
Field or Inlet Compression?
Will TEG dehydration at the well sites improve overall system performance?

Gas Treating
What is the expected inlet CO2 and H2S concentration?
Is an amine plant required? H2S scavengers? CO2 Removal Membranes?

Maintenance and Operations
Who will maintain the plant?
How will plant operations be handled?

The cryo plant supplier is not responsible for evaluating pipeline capacity, field vs plant compression, field dehydration, overall process simulations, PHA (Process Hazard Analysis), site selection, cryo plant supplier selection, overall project management, and safety system development and employee training. Newpoint can provide the supervision necessary to complete the project on time and on budget.