

### **Processing Facilities**

# EnCana Corporation Lone Pine Compressor and Dehydration Station Project

The project objective was to build a grass roots, sweet gas CBM (Coal Bed Methane) compressor and dehydration station at the Lone Pine Creek area near Linden, Alberta at LSD 01-36-030-26-W4M. The Compressor Station was be installed to process sweet, natural gas from field pressure to TCPL Sales Gas Pipeline pressure and specification. The compressor station has a sales gas capacity of 17-20 MMscfd, and can handle gas inlet pressures ranging from 5 to 150 psig inlet and discharge pressure from 700 to 1000 psig.

The following major equipment was installed:

- One (1) 1005 hp Rotary Screw Booster Compressor Package
- One (1) two-phase 48" ID Inlet Separator Package
- Two (2) 1150 hp 2-stage Sales Gas Reciprocating Compressor Packages
- One (1) 36" OD Glycol Dehydration Package
- One (1) 400 BBL Water Storage Tank with secondary

containment

- One (1) Underground 25 BBL Vent KO Drum Package with pump out
- One (1) Vent Stack
- One (1) Office Building
- One (1) MCC Building
- One (1) Barrel Dock
- One (1) 15 HP screw compressor type instrument air package with 100% standby unit

#### Our scope of work included:

- Conceptual Design (pre-FEED)
- FEED
- DBM preparation
- Capital cost estimate (Appropriation Grade)
- Compressor and equipment investigation scenarios
- Detailed engineering
- Procurement and expediting





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- Constructability reviews
- Field construction support
- HAZOP review
- Shutdown Key reviews

Engineering deliverables and construction drawings/documents in the different engineering/design disciplines, including Process, Mechanical, Piping, Instrumentation, Electrical, Civil and Structural, design and 3D model, sourcing of equipment and bulk items, procurement and expediting (in cooperation with EnCana Procurement Department) were completed by our team.

The bulk of the major equipment for this project was sourced from EnCana surplus inventory, and in most cases required some creative thinking to ensure all of the components were usable together, as part of the constructability review. Our project manager met with the Site Inspector and Mechanical Construction Foreman on numerous occasions at equipment storage yards in Alberta to inspect the equipment, note any design adjustments that had to be made, and to decide on the location and timing to make those changes that fit the construction and shipping schedules.

The project was managed with a lean project team and a fast, controlled pace throughout the work scope, which allowed the plant start-up to occur in less than 8 months from our in-house project kick-off.

