

Natural Gas Processing Plant #525 – 24 MMSCFD

Plant Purpose:

Designed to sweeten, dehydrate and process 24 MMSCFD of inlet gas containing a nominal 27 mol % CO₂ but sweet with respect to H₂S. The incoming gas is first compressed to about 550 psig, cooled to about 110° F and liquids separated, then dehydrated by TEG solution. The dry gas is next processed for NGL recovery, sweetened by amine treatment (which transfers equilibrium water vapor back to the gas) and finally re-dehydrated by TEG to pipeline specification of H₂O/MMSCF as the last process step.

Process Sections

- Condensate Stabilization
- Inlet Gas Dehydration
- NGL Recovery
- Propane Refrigeration
- Amine Treatment
- Final Dehydration

History

- Built in 2001
- Shut down in 2020

Equipment List

P-11	Xysol Injection Pump
V-1	Slug Catcher
ST-4	Xtsol Storage Tank
IFS-1	Inlet Filter Separator
IC-1	Inlet Coalescer
T-501	Inlet Condensate Stabilizer
E-1	Inlet Condensate Stabilizer Reboiler
F-1	Condensate Filter
P-1 AB	Condensate Pumps
F-2	Inlet Filter
T-2	Glycol Contactor
IC-2	Glycol Contactor Inlet Coalescer
OC-2	Gas/Glycol Outlet Coalescer
E-2	Gas/Gas Heat exchanger
E-3	Gas/Liquids Heat Exchanger

E-4	Gas Chiller
V-3	Cold Separator
AC-1	Propane Condenser
V-4	Propane Surge Tank
V-5	Propane Economizer
T-3	NGL Stabilizer Tower
E-5	Feed/Bottoms Heat Exchanger
E-6	Stabilizer Reboiler
T-4	Amine Contactor
V-6	Amine Scrubber
T-5	Glycol Contactor
V-7	Glycol Scrubber
E-9	Glycol Preheater
V-8	Flash Tank
F-4	Solid Filter
F-5	Carbon Filter
F-6	Amine Solids Filter
E-7	Lean Rich Exchanger
P-2 AB	Booster Pumps
T-6	Amine Still
H-1	Heater
B-1	Boiler
V-18	Still Vent Scrubber
V-16	Fuel Gas Scrubber
AC-2 AB	reflux Condenser
AC-3 AB	Amine Cooler
AC-4 ABC	Amine Cooler
V-11	Vent Scrubber
P-3 ABC	Reflux Pumps
V-10	Reflux Accumulator
P-4 AB	Amine High Pressure Pumps
F-8	Glycol Solids Filter
P-5 AB	Hot Heat Medium Pumps
P-5 CD	Glycol Booster Pumps
P-6 AB	Dehydration Glycol Pumps
AC-5	Glycol Cooler
V-17	Heat Medium Surge Tank
V-13	NGL Storage Tank
V-14	NGL Storage Tank
P-7	NGL Loading Pump

V-15	Propane Storage
E-8	Raw Fuel Heater
F-9	Glycol Pre-Heater
F-10	Glycol Coalescing Filter
F-11	Glycol Wool Filter
V-19	Glycol Relief Scrubber
VT-1	Glycol Vent Tank
F-12	NGL Pre-Filter
F-13	NGL Coalescing Filter
ST-8	R/O Water Tank

Excluded from Sale

- Inlet scrubber
- Coalescer
- Filter
- NGL tanks (not the propane tank)
- Electric compressor (may be purchased at additional cost)