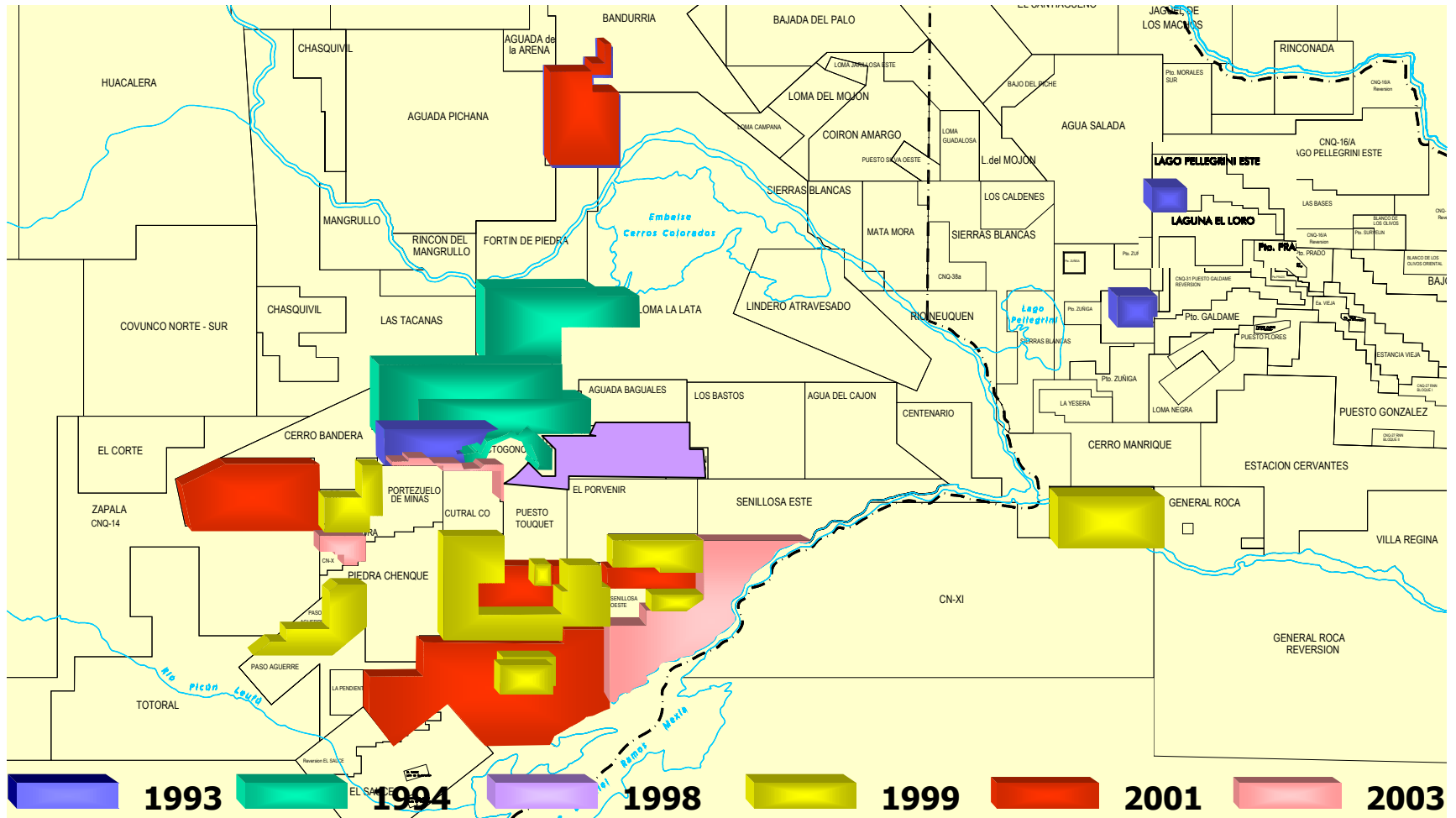


PIONEER OVERVIEW

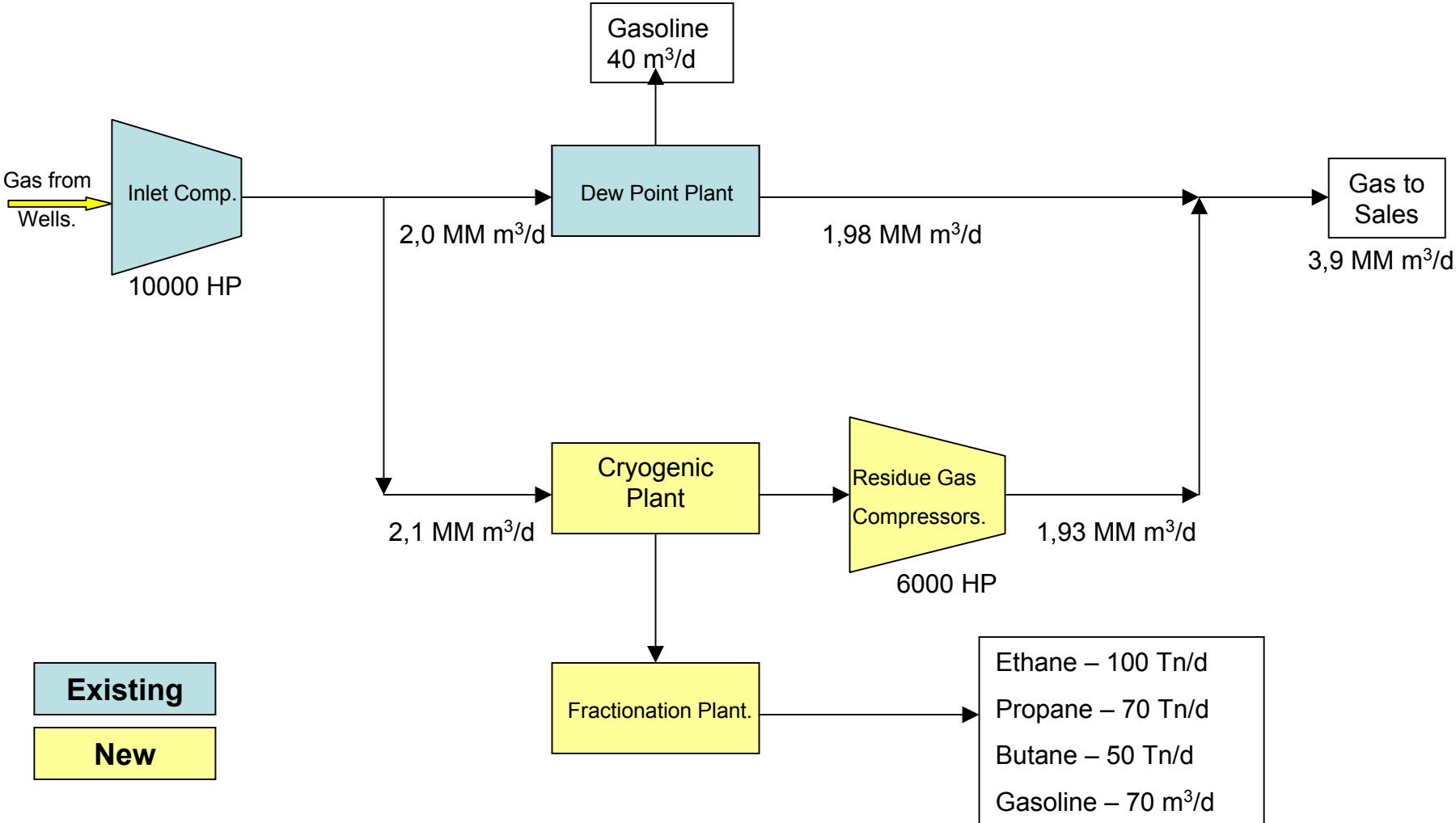


- **General**
 - 1.8 million net acres
 - Average daily production ~ 25,000 BOEPD
 - 120 MMBOE net proved reserves
- **Neuquen Basin**
 - Pioneer-operated
 - 426 active wells
 - 4 gas plants
 - Several hundred development locations
 - Continue to expand field limits
 - Low cost operator at \$2.80/BOE
- **Austral Basin**
 - BP-operated
 - 178 active wells
 - 3 gas plants
 - One block Pioneer operated
 - Significant exploration potential
- **San Jorge Basin**
 - One block Pioneer operated

PIONEER PROPERTIES



LOMA NEGRA PROCESS BLOCK DIAGRAM



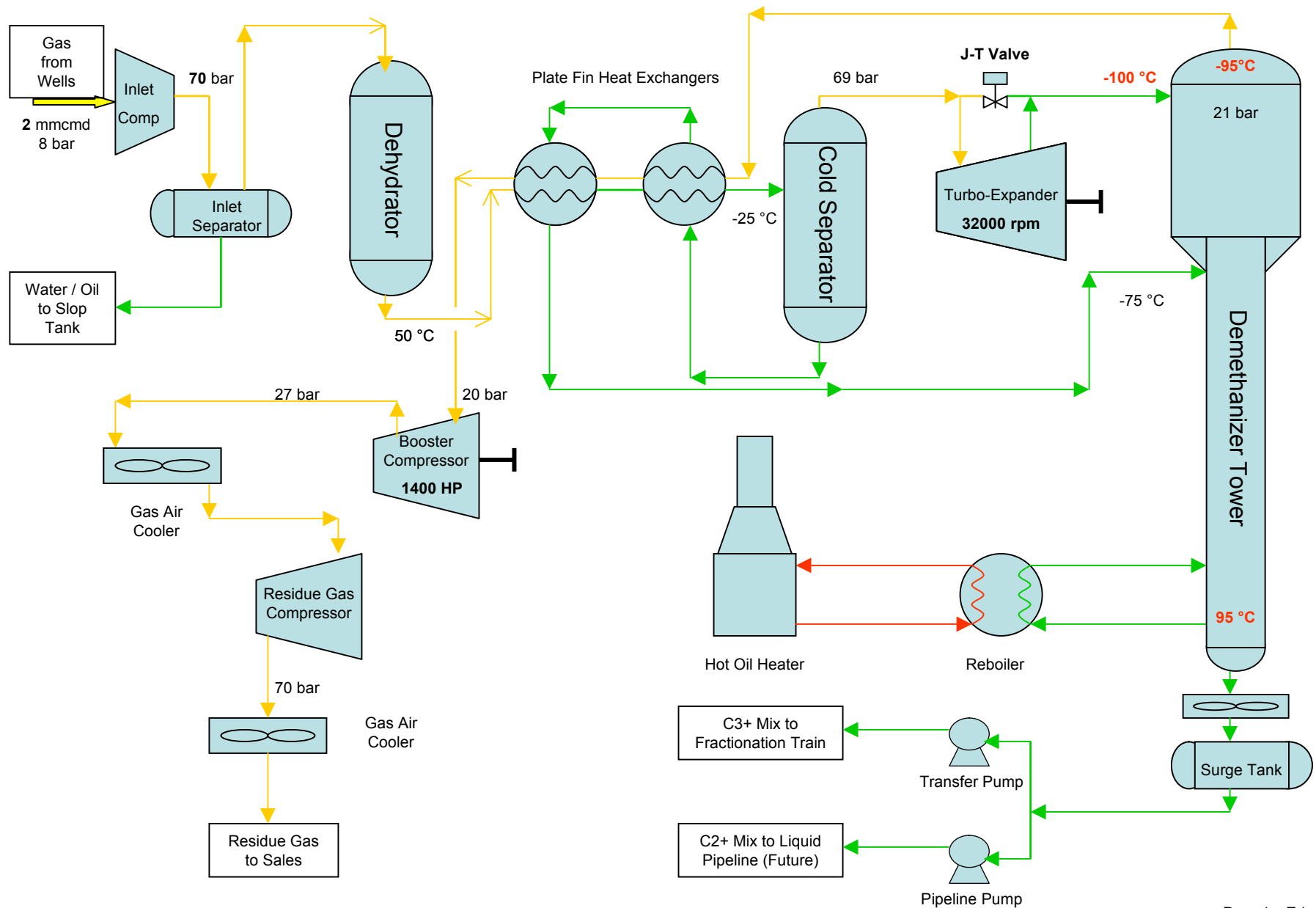
Existing

New

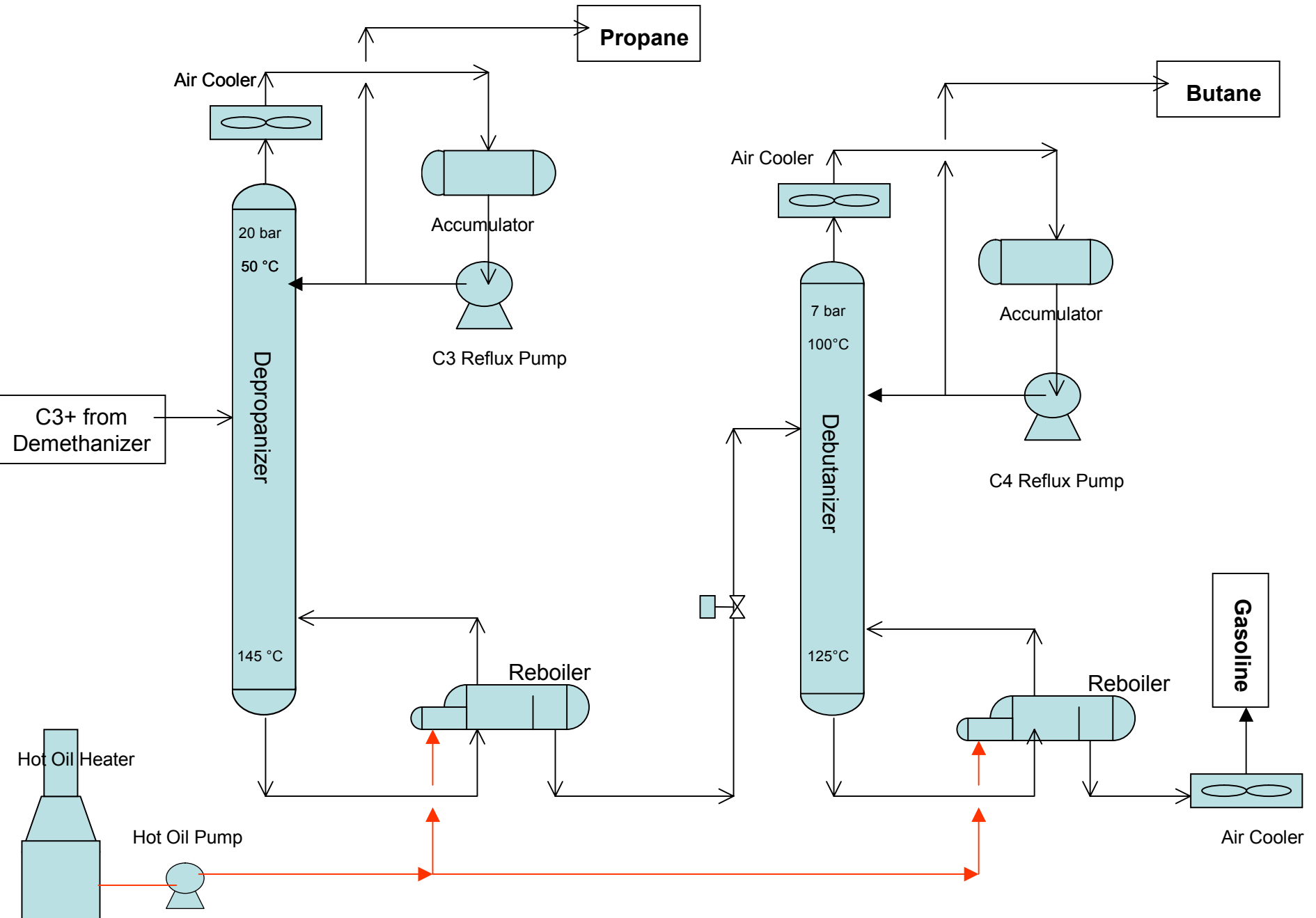
TYPICAL GAS COMPOSITIONS

Component	Average Inlet Gas Composition	Outlet Gas Composition	
		Propane Recovery Mode	Ethane Recovery Mode
Carbon Dioxide CO ₂	0.32%	0.33%	0.35%
Nitrogen N ₂	0.76%	0.79%	0.83%
Methane C ₁	90.49%	94.23%	98.47%
Ethane C₂	4.35%	4.53%	0.24%
Propane C ₃	2.05%	0.09%	0.09%
Iso-Butane iC ₄	0.29%	0.01%	0.01%
Normal-Butane nC ₄	0.78%	0.02%	0.02%
Iso-Pentane iC ₅	0.20%	0.00%	0.00%
Normal-Pentane nC ₅	0.27%	0.00%	0.00%
Hexane C ₆	0.32%	0.00%	0.00%
Heptane C ₇	0.11%	0.00%	0.00%
Octane & Sup C ₈₊	0.06%	0.00%	0.00%
	100.00%	100.00%	100.00%
Heat Content	10031 Kcal/m ³	9263 Kcal/m ³	8972 Kcal/m ³
Actual Volume	1.00 mmcmd	0.960 mmcmd	0.919 mmcmd
Volume @ 9300 Kcal/m ³	1.08 mmcmd	0.956 mmcmd	0.886 mmcmd

LPG PROCESS FLOW DIAGRAM



FRACTIONATION TRAIN



LOMA NEGRA: LPG & FRACTIONATION PLANTS

Capacity: 2.1 MMcmd (75 MMscfd)



DEW POINT PLANT

Capacity: 2 MMcmd of gas / 40 cmd of Gasoline



INLET COMPRESSORS 2.0 MMCMD – 10000 HP



PLANT INLET SEPARATOR



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FILTERS & DEHYDRATORS



HEAT EXCHANGERS (HTX)

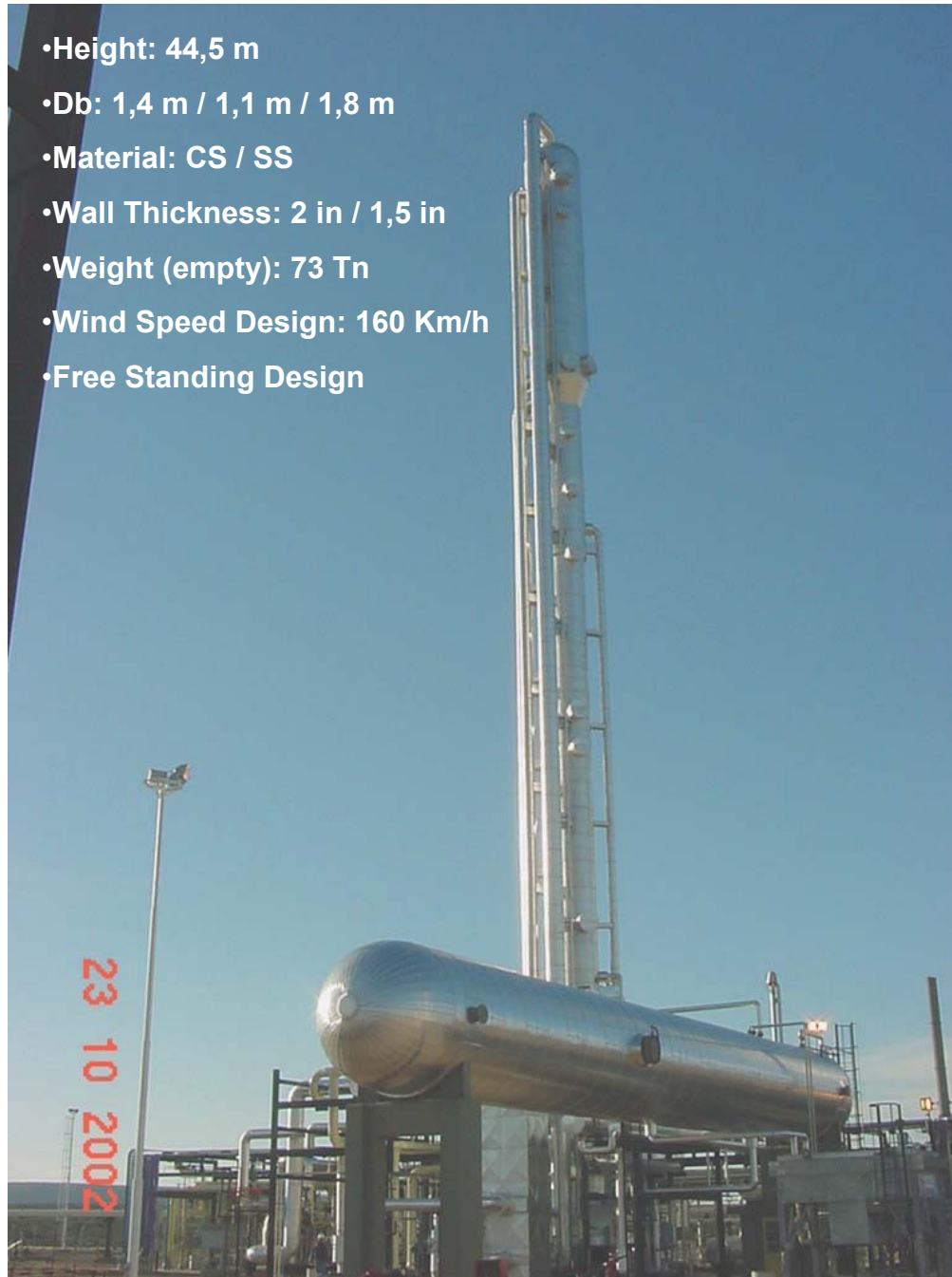


BOOSTER COMPRESSOR & EXPANDER



DEMETHANIZER TOWER

- Height: 44,5 m
- Db: 1,4 m / 1,1 m / 1,8 m
- Material: CS / SS
- Wall Thickness: 2 in / 1,5 in
- Weight (empty): 73 Tn
- Wind Speed Design: 160 Km/h
- Free Standing Design



AIR COOLERS



J-T VALVE



150 m³ SURGE TANK – Liquids from Demethanizer



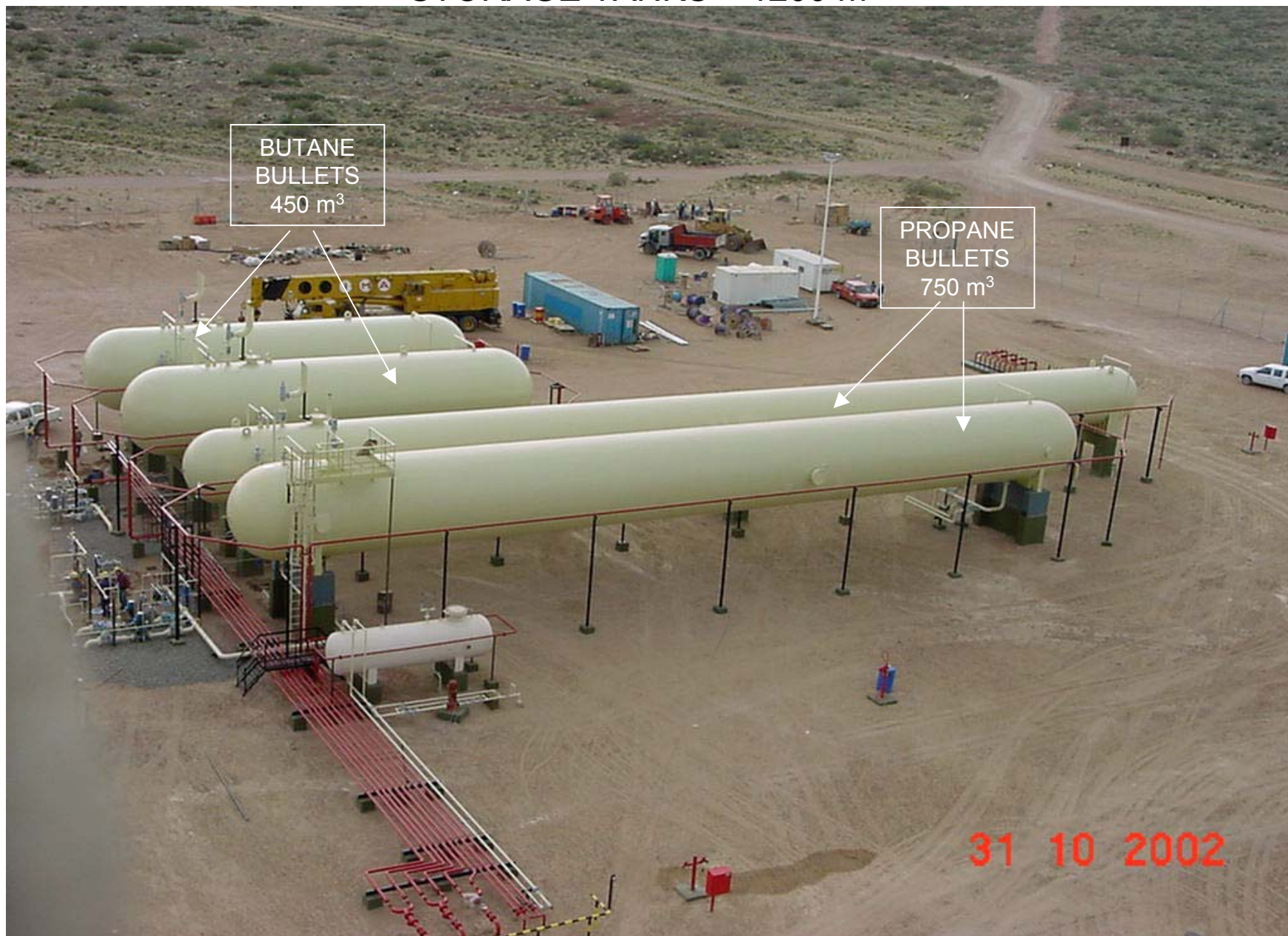
Pipeline & Transfer Pumps



Residue Gas Compressors – 2.0 MMcmd – 6000 HP



STORAGE TANKS – 1200 m³



BUTANE
BULLETS
450 m³

PROPANE
BULLETS
750 m³

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Gasoline Tank, Transfer Pump & Mass Meter



Demethanizer & Fractionation Towers



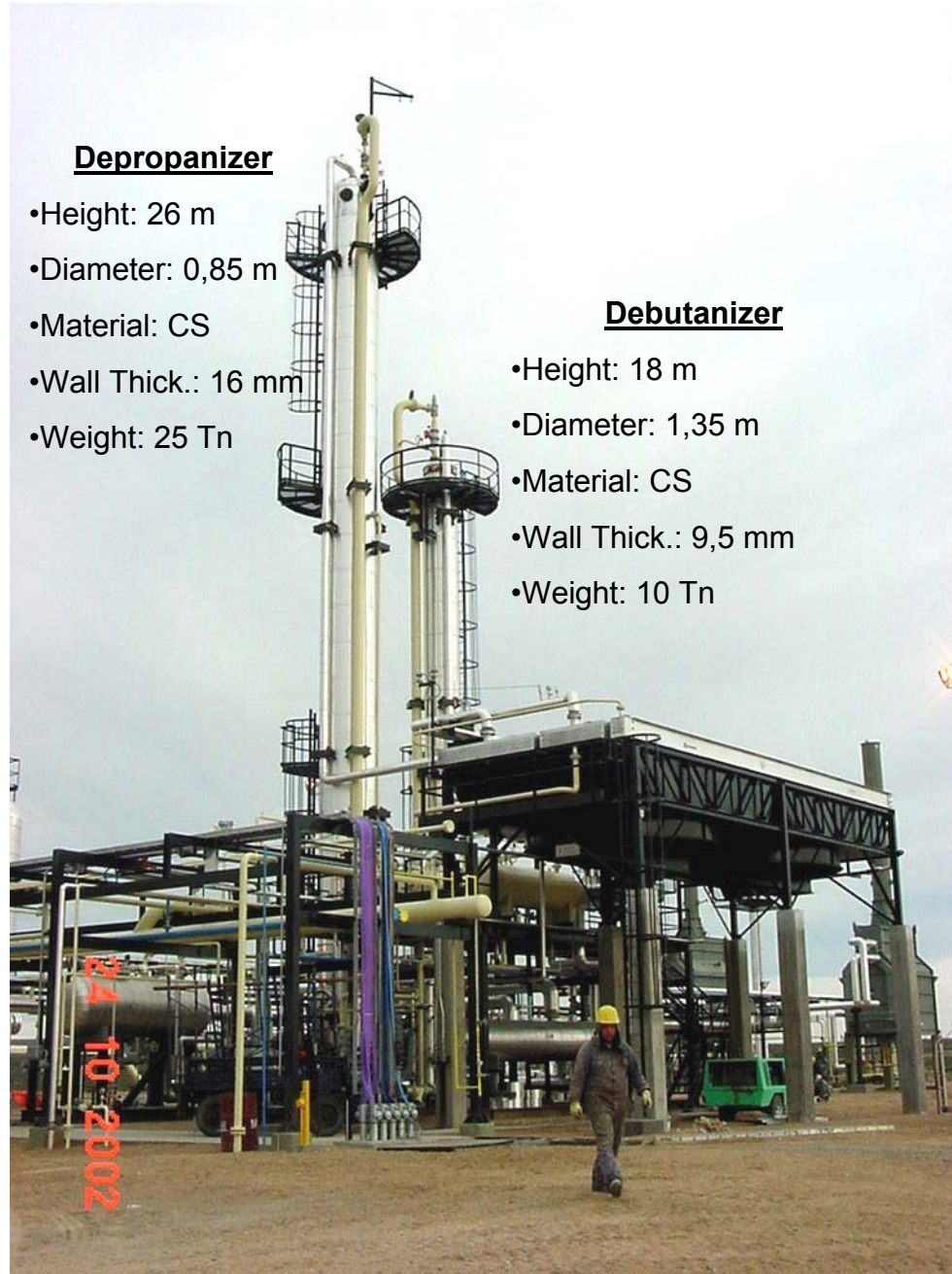
De-Propanizer & De-Butanizer Towers

Depropanizer

- Height: 26 m
- Diameter: 0,85 m
- Material: CS
- Wall Thick.: 16 mm
- Weight: 25 Tn

Debutanizer

- Height: 18 m
- Diameter: 1,35 m
- Material: CS
- Wall Thick.: 9,5 mm
- Weight: 10 Tn



HOT OIL PUMPS & SURGE TANK



REFLUX PUMPS



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REBOILERS & ACCUMULATORS



AIR COOLERS & HOT OIL HEATER



Auxiliary Equipment

- Control Room & Plant Office
- Delta V Control System Operators
- Fuel Gas System
- Fire Fighting Facilities
- Truck Scale
- Flaring System
- Truck Loading Rack
- Odorization Control Panel
- Gas & Liquid Chromatograph

CONTROL ROOM & PLANT OFFICE



DELTA V – OPERATOR WORKSTATIONS



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REGENERATION GAS HEATER & HOT OIL HEATERS



FUEL GAS SYSTEM & OFF SKID PIPING



FIRE WATER TANK & PUMPS – TRUCK SCALE



TRUCK LOADING RACKS



Gas Meter Runs & Shut Down Valves



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LPG TRUCK on TRUCK SCALE



FLARING SYSTEM



ODORIZAZION PANEL



GAS & LIQUID CHROMATOGRAPH



Construction Facts

- People: 200
- Man-hours: 180.000
- # of Accidents / Incidents ZERO
- Contractors & Subs. 30
- Investment US\$ 14.000.000
- Soil Movement: 104.000 m³
- Concrete: 600 m³
- Equipment & Piping: 4000 Tn
- Insulation: 2200 m²
- Paint: 1200 It

MAIN CONTRACTORS

- **CRYOGENIC PLANT**
 - Minor Equipment & Management: CBI (Arg)
 - Know How & Main Equipment: Howe Baker Engineers (USA)
 - Construction: SIMA S.A. (Arg)
- **FRACTIONATION PLANT**
 - Management: Pioneer (Arg)
 - Know How: Hytech S.A. (Arg)
 - All Equipment: Argentine Suppliers
 - Construction: SIMA S.A. (Arg)