



# OIL WELL INSTRUMENTATION & CONTROLS

The Oil & Gas industry is composed of three major areas:

## Upstream

Well Pad Electrical  
and Instrumentation  
& Controls

## Midstream

Oil Pipelines and  
Delivery Automation

## Downstream

Oil Refinery Electrical  
and Instrumentation  
& Controls

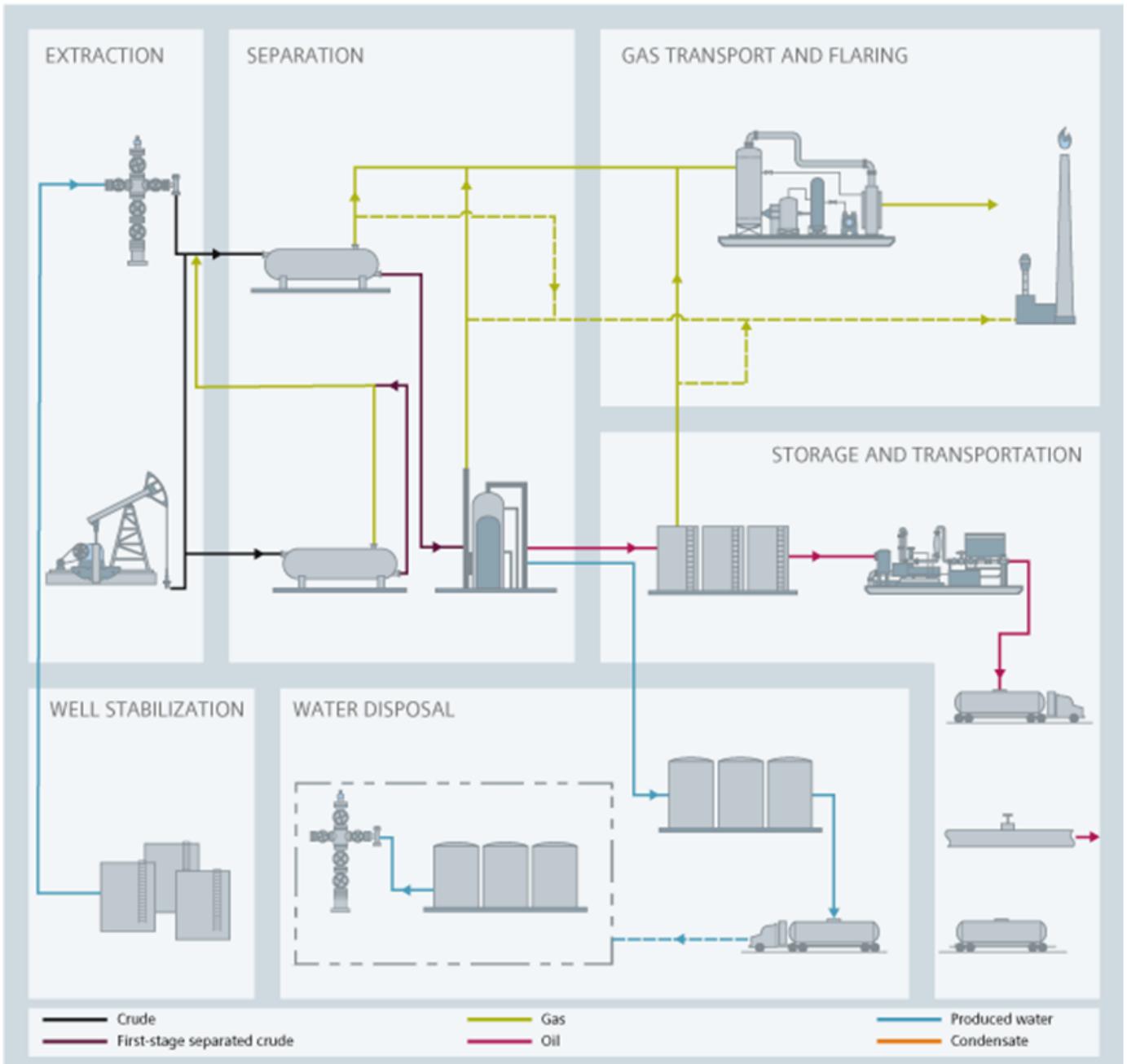
## City Gas Distribution

Distribution of Natural Gas  
to Consumers in Domestic/  
Industrial sectors

The upstream industry finds and produces crude oil and natural gas. The midstream industry processes, stores, markets and transports commodities such as crude oil, natural gas and natural gas liquids. The downstream industry includes the oil refineries, petrochemical plants, petroleum product distributors and natural gas distribution companies.

Oil Well Instrumentation is much complex than normal plant Instrumentation because of the duty cycles and pressure ratings up to 2500#. Be it Production Well or Polymer Injection well, Cellar Pit has typical Installations of Instruments with Diaphragm Seals and Thermowell sensors in and around Christmas tree. F&G instruments are required for Fire, Gas sensing in Cellar Pits. To work in area with hazardous gases like H<sub>2</sub>S requires special training and gas sensors on sleeve. Use of highly corrosion resistant MOC Hastelloy C 276 and Alloy C20 makes this projects unique and requires lot of planning to execute them. IceCube understands different pump characteristics of type of pumps used to extract oil and inject water and polymer. Controls are DCS based and requires extensive interlocks.

Whether you are producing from a conventional or unconventional field, key challenges like reducing operating costs, minimizing HSE risks, and maximizing production are paramount. IceCube can help drive down operational costs while optimizing production—leading to a better return on your investment.



# City Gas Distribution

## Electrification of Distribution Station

- Main Distribution Station
- Mother Stations
- Daughter Stations
- Online Stations

## Instrumentation and Control for Gas Distribution Network

- SCADA Control Room for Distribution network
- Components of Gas Distribution station
- CNG / PNG Compressor
- CNG / PNG Dispenser

