



## Tube Storage

### What is Tube Storage?

Tube storage is a method of collecting and storing Natural Gas Liquids (NGLs) in short, underground pipelines for later use in a batched delivery process in high rate pipelines. Systems usually consist of inlet metering systems, storage tubes, and inlet and outlet headers.

NGLs are ethane, propane, butane and pentanes found in natural gas. These components are separated so that the natural gas meets the applicable specification for pipeline transportation. Some NGL have higher market value or are used in specific industrial applications which require the different NGLs to be stored and shipped separately. Tube storage allows for the aggregation of these NGLs until they are needed for a batched delivery.

Tube storage complies with CAN/CSA Z662 for oil and gas pipeline systems, and all applicable CAN/CSA standards, federal legislation and industry best practices.

### Benefits of Tube Storage

Tube storage systems are often more simple, versatile and cost effective than using above ground storage tanks/bullets. Multiple plants can supply NGL to one tube storage facility before a

batched delivery can proceed through a pipeline. As the tube storage systems incorporate metering and telemetry, all critical operating and accounting (custody transfer) data can be communicated quickly to operations centers either locally or remotely.

Tube storage reduces cost by eliminating the need for expensive facility development and above ground storage bullets, helps reduce maintenance costs, and increases flexibility in delivering multiple types of NGL's through a pipeline.

### Use of Tube Storage in North America

Tube storage is being used by NGL midstream companies throughout North America. Natural gas processors and gas gathering companies are using tube storage in areas where produced liquids (NGL) must be removed from the gas and delivered via pipeline to downstream markets. As the downstream delivery pipelines for NGL are high rate pipelines, they must be operated in batch mode. As such, midstream companies require a way to aggregate batches of NGL from low rate production facilities. Tube storage systems satisfy this need.

# Contact us

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## Why Wood Group

With over 300 professionals located in Western Canada we have the ability to execute work locally with experienced pipeline engineers. Wood Group has over 15 years of experience engineering and executing NGL tube storage projects in Western Canada. We have successfully engineered and designed more than 20,000m of NPS 48-NPS60 underground tube storage facilities to multiple midstream companies in Alberta and British Columbia. Our experience makes us the industry leader in the engineering and design of tube storage systems.