

GRABEN AREA EXPORT LINE INFRASTRUCTURE SPECIFIC INFORMATION



General Requirements	All Spurline Liquids entering the Spurline System must meet the specific requirements set out below, and generally be of a nature which will not be likely to prejudice its expected 30 year design life.
Oxygen	5 ppb oxygen in water phase
Water	2% by volume free from solids
Mercaptans	200 ppm by weight
Nitrogen	0.2% by mole
Salt	5000 milligrams per litre of total operating fluid (sodium, calcium and magnesium chlorides)
CO₂ and H₂S Corrosion Limits	<p>The philosophy for setting the Delivery Specification for contaminants and corrosion management in the Spurline System is based upon a strategy of confirmation of the effectiveness of a corrosion inhibitor and ensuring the availability of the injection system at an identified minimum level. The inhibition strategy shall be suitable for the Spurline System within the corrosion allowance provided, consistent with a thirty year design life.</p> <p>The pipeline material is not specified for sour service conditions. Nevertheless, certain levels of H₂S and CO₂ can be accepted safely with the metallurgy being deployed.</p> <p>As a general rule the limit for wet CO₂ corrosion taking into account the corrosion allowance applied in the Spurline System and the current maximum expected operating temperatures imposes a limit of 1 mol % CO₂ maximum in Spurline Liquids. Again the acceptability of CO₂ under sour corrosion conditions with H₂S must be reviewed. Consideration may be given to accepting higher levels of CO₂ under conditions of lower temperature.</p>
Continued	<p>Notwithstanding the above, the maximum contaminants (carbon dioxide and hydrogen sulphide) limits must not exceed the limits of the downstream FPS pipelines namely:</p> <ul style="list-style-type: none"> • 10 ppm wt% H₂S • 2 mol % CO₂
Design pressure	250 barg at LAT is required from all connecting pipelines
Maximum pressure	Approximately 215 bar g
Wax	<p>a Prior to first entry of Spurline Liquids from each new entrant, an assessment of the wax deposition tendencies of their Spurline Liquids when combined with anticipated throughput from the other users must reasonably demonstrate continued safe operability and acceptable pigging frequency for the Spurline System.</p> <p>b The wax deposition tendencies of all Spurline Liquids entering the Spurline System at all times must, when combined, be such as to reasonably ensure safe operability and acceptable pigging frequency of the Spurline System. Fluid Compatibility in Spurline Prior to first entry of Spurline Liquids from each new entrant, their Spurline Liquids must be tested by the System Operator to ensure reasonable compatibility after mixing with other Spurline Liquids in the Northern and/or Southern Spurlines. Such tests shall include wax, asphaltenes, hydrates and water chemistry. Any compatibility problems identified shall be remedied at the cost of the new entrant.</p>
Vapour pressure	The maximum TVP of the Pipeline Liquids shall not exceed 9.62 bar g at 15.6°C
Temperature	The minimum temperature of Spurline Liquids tendered by any new entrant at any Delivery Point must be sufficient to ensure that neither the capacity nor other rights of any other spurline user are materially prejudiced, without limitation including any prejudice which may be caused by the influence of temperature differences on the wax appearance and deposition tendencies and viscosity of the combined stream.