

<b>PEMBINA NORTH PIPELINE PETROLEUM SPECIFICATIONS</b> Effective : Aug 10, 2015	<b>Units</b>	<b>Test Method</b>	<b>CONDENSATE</b>
<b>Absolute Density at 15°C</b>	kg/m <sup>3</sup>	ASTM D5002	775–650 <sup>(3)</sup>
<b>Vapour Pressure (VPCR<sub>4</sub>@37.8C)</b>	kPaa	ASTM D6377	◀103
<b>Receipt Temperature</b>	°C °C		40 (max.) 0.0 (min.)
<b>Moisture and Contaminant Content</b> <sup>(1)(2)</sup>	vol%	ASTM D4007	◀ 0.5
<b>Colour</b>		ASTM D1500	◀ 4.0
<b>PH of contained water</b> <sup>(2)</sup>			▶5.0 & ◀7.0
<b>Total Sulphur</b>	wt%	ASTM D4294	◀ 0.5
<b>Organic Chlorides in the Whole Crude</b>	wppm	ASTM D4929	◀ 1
<b>Mercaptans, volatile (cumulative C1,C2,C3)</b>	wppm S	ASTM D5623	◀ 175
<b>Hydrogen Sulphide in the Liquid Phase</b>	wppm	ASTM D5623	◀ 20
<b>Olefins, Total</b>	wt%	H NMR	◀ 1
<b>Oxygenates</b>	wppm	PONAOX (U) ASTM D6729	◀ 100
<b>Aromatics, Total (BTEX)</b>	vol%	PONAOX (U) ASTM D6729	▶ 2.0
<b>Benzene</b>	vol%	PONAOX (U) ASTM D6729	◀ 1.6
<b>Phosphorous in Volatile fraction</b>	wppm	ICP AES D86 (250°C cut)	◀1.5
<b>Total Salt</b>	g/m3		◀ 285
<b>Total Filterable Solids</b>	mg/l	ASTM D4807 Procedure C	◀200
<b>Viscosity @ 7.5 °C</b>	cSt	ASTM D445	◀2.0 <sup>(3)</sup>

**NOTES:**

- Contaminant content means all non-hydrocarbon materials excluding Nitrogen and Carbon Dioxide.
  - No free water at -29°C.
  - Densities greater than 775 kg/m<sup>3</sup> but less than 800 kg/m<sup>3</sup> can be accepted if a recent Certificate of Analysis is provided demonstrating viscosity, filterable solids and sulphur content meet the specification limits.
- The symbol "◀" designates less than and "▶" designates greater than.