

## LNG Quality Certificate

No.	Date
-----	------

LNG Tanker Loading Report	No.	date
---------------------------	-----	------

Lp.	Parameter	Designation	Unit	Value
1	methane	CH <sub>4</sub>	% mole	
2	ethane	C <sub>2</sub> H <sub>6</sub>	% mole	
3	propane	C <sub>3</sub> H <sub>8</sub>	% mole	
4	isobutane	i-C <sub>4</sub> H <sub>10</sub>	% mole	
5	n-butane	n-C <sub>4</sub> H <sub>10</sub>	% mole	
6	isopentane	i-C <sub>5</sub> H <sub>12</sub>	% mole	
7	n-pentane	n-C <sub>5</sub> H <sub>12</sub>	% mole	
8	neo-pentane	neo-C <sub>5</sub> H <sub>12</sub>	% mole	
9	hexane +	C <sub>6</sub> H <sub>14</sub> +	% mole	
10	nitrogen	N <sub>2</sub>	% mole	
11	carbon dioxide	CO <sub>2</sub>	% mole	
12	gross calorific value	H <sub>s</sub>	kWh/kg	
13	gross calorific value	H <sub>s</sub>	kWh/Nm <sup>3</sup>	
14	net calorific value	H <sub>i</sub>	kWh/Nm <sup>3</sup>	
15	methane number	MN	-	
16	gas density	d	kg/Nm <sup>3</sup>	
17	LNG density	TK2011 AID-27	kg/m <sup>3</sup>	
18	LNG temp.	TK2011 TI-27	°C	

### Measurement/calculation methods used

Analysis of gas composition	Process Gas Chromatograph
Calculation of gross calorific value	ISO 6976
Calculation of methane number	AVL method
Reference conditions	Combustion process: t=25°C, p=101,325kPa Volume: t=0°C, p=101,325kPa LNG density, temp.: measurements in the tank supplying the LNG road tanker loading

### LNG Quality Certificate issued by:

Name, surname:	Signature:
----------------	------------