

**CERTIFICATE**  
**for the shipment of a fraction of broad light hydrocarbons**  
**according to TS 38-101524-2015**

Supplying party - JSC NGPZ

Sampling site - gas distribution plant and washing and steaming station

Sampling was performed by gas distribution plant and washing and steaming station personnel according to GOST 14921. "Liquefied hydrocarbon gases. Sampling techniques"

Date (period) of delivery - from 01.09.2019 through 30.11.2019

Sampling date (period) - from 01.09.2019 through 30.11.2019

Date (period) of the tests - from 01.09.2019 through 30.11.2019

Test results:

Name of the indicator	Testing method	Test result
Mass fraction of methane, %	Appendix A TS 38-101524	0.16
Mass fraction of ethane, %		1.82
Mass fraction of propane, %		39.76
Mass fraction of i-butane, %		10.76
Mass fraction of n-butane, %		25.47
Mass fraction of i-pentane %		7.70
Mass fraction of p-pentane %		7.27
Mass fraction of hexane, %		7.06
Mass fraction of mercaptan sulfur, %	GOST 22985	0.0052
Mass fraction of hydrogen sulfide, %		< 0.0002
Free water and alkali content	TS 38-101524, item 5.3	Absence
Overall view	TS 38-101524, item 5.4	colorless transparent liquid

Chief Technologist

/signature/

A.V. Sinyukov

Round Seal: / Russian Federation\* Samara region\* Neftegorsk  
Joint Stock Company Neftegorsky Gas Processing Plant  
For financial documents/