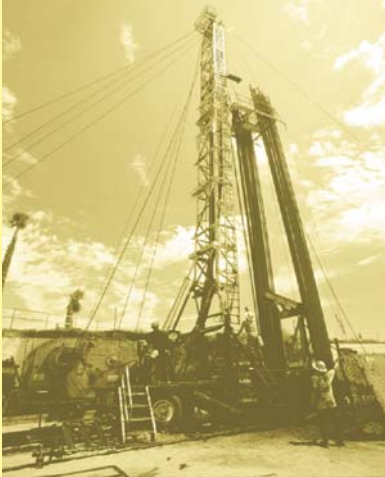


AC Ultra Fast Wellbore Natural Gas Analyzer Quantifies Individual Components in 48 Seconds



Product Brief

KEY FEATURES

- ✓ Ultra Fast Wellbore Natural Gas Analysis in Only 48 Seconds
- ✓ Continuous Monitoring of Total Hydrocarbons
- ✓ Quantifies the Composition of Individual Components
- ✓ Excellent Repeatability

INTRODUCTION

Drilling for Natural Gas requires precise knowledge of the drilling status as the drilling engineer needs to optimize the drilling technique in the process. The amount of hydrocarbons in the gas coming from the drilling increases as the drilling approaches the source. In order to know exactly how close they get to the well, the level of hydrocarbons in the gas is constantly monitored by gas chromatography.

ULTRA FAST WELLBORE GAS ANALYSIS

AC Analytical Controls developed a wellbore gas analyzer that offers ultra fast natural gas analysis in only 48 seconds.



AC Ultra Fast Wellbore Natural Gas Analyzer using two channels

CONTINUOUS MONITORING OF TOTAL HYDROCARBONS

The ultra fast AC wellbore gas system uses the new Agilent Technologies 7890 Series GC configured with two channels.

One channel measures the total concentration of hydrocarbons continuously. This channel consists of a split/splitless injector with electronic pneumatics control (EPC), a capillary column and a flame ionization detector (FID). The sample is fed directly to the EPC inlet. The level of the baseline will indicate the level of the hydrocarbons in the sample.

QUANTIFIES THE COMPOSITION OF INDIVIDUAL COMPONENTS

The second channel uses a cycle method for the quantification of individual components and consists of an EPC, two packed columns and a ten-port valve.

TWO METHODS

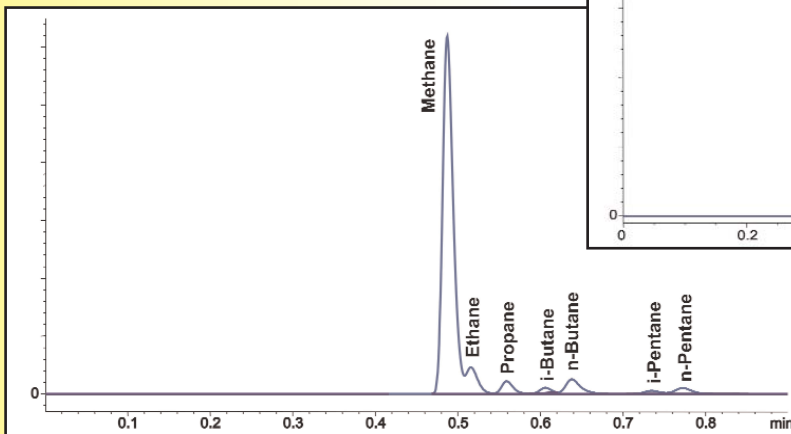
During the normal analysis, the 48 seconds cycle method will be used for analyses to measure the low concentration of Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane and n-Pentane, back flushing away anything that is heavier.

As the concentration increases, the 72 seconds cycle can be used for better separation between Methane and Ethane.

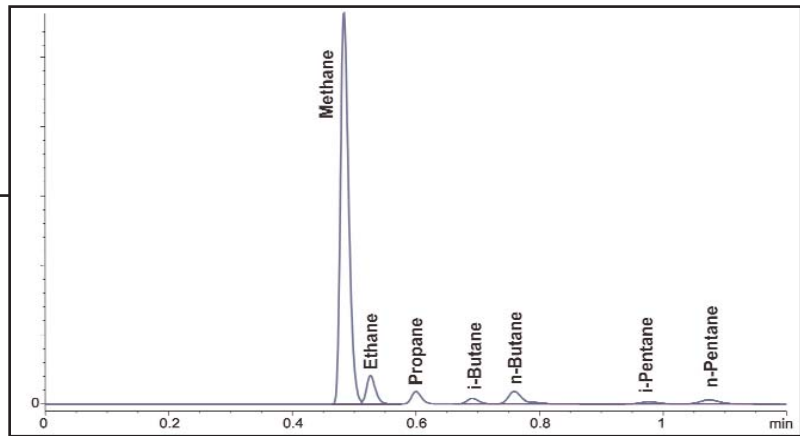
EXCELLENT REPEATABILITY

The 48 seconds method measures the low concentration of Methane, Ethane, Propane, iso-Butane, n-Butane, iso-Pentane and n-Pentane, offering excellent repeatability data.

RSD %	Component
0.015	Methane
0.016	Ethane
0.024	Propane
0.026	i-Butane
0.026	n-Butane
0.034	i-Pentane
0.040	n-Pentane



AC ultra fast wellbore gas analyzer using the 48 seconds cycle method



AC ultra fast wellbore gas analyzer using the 72 seconds cycle method

FEATURES & BENEFITS

- ✓ Ultra fast wellbore gas analysis in 48 seconds
- ✓ Continuous monitoring of total hydrocarbons
- ✓ Quantification of individual components with an excellent repeatability
- ✓ Using the new Agilent Technologies 7890 Series Gas Chromatograph
- ✓ A global network of AC certified support engineers commissions the system on-site in one day
- ✓ Instrument is delivered within three weeks
- ✓ One year hardware and application warranty includes free helpdesk assistance to any hardware or software related questions
- ✓ Optional on-line remote support is available

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