

## **Snam Rete Gas S.p.A. and its chemical lab: Integrated management experience through LABWORKS LIMS**

- **SNAM Rete Gas Company Overview**

Snam Rete Gas S.p.A. owns and manages a natural gas transport network stretching for over 30,000 km within Italy. This network is directly connected with the gas fields, as well as with the import lines and the stock centres fuelling Italy's natural gas system.

Gas is transported and delivered on request to 7,000 destinations within the local distribution network, as well as to large industries and thermoelectric power stations.

The Company focuses on transporting gas within Italy, whose gas market ranks third in Europe with an 80 billion m<sup>3</sup> yearly consumption.

One of the Company's main strengths is the technological level of its network infrastructures (compression power stations and decompression facilities, remote control and data transmission systems) guaranteeing a very high-levelled and reliable service. The whole system is regulated and controlled 24 hours a day from the Dispatch Centre (Centro di Dispacciamento) consisting of a highly sophisticated operational room outfitted with the most advanced technological equipment. Gas quality is constantly monitored by LASVIL Laboratory where a wide range of analytical tests are carried out to guarantee product compliance to specifications and standard requirements.



*From left:  
Bruno Viglietti LASVIL, Engineer,  
Laboratory Manager (Snam Rete  
Gas),  
Luca Piatti (PerkinElmer) Project  
Manager,  
Dr Alejandra Casola Lopez interim  
Laboratory Manager (Snam Rete  
Gas) with  
Dr Michele Caselli (PerkinElmer)  
LIMS Sales Leader*

## • Accreditations

- ✓ **SIT 155** (Calibration Service in Italy) accredited as Centre for natural gas calibration, in compliancy with **UNI CEI EN ISO/IEC 17025** standards.
- ✓ Awaiting **SINAL** accreditation, in compliancy with **UNI CEI EN ISO/IEC 17025** standards deifying chimney emission analysis.

## • Work Experience with LABWORKS LIMS

Thanks to LABWORKS LIMS, SNAM Rete Gas succeeded in managing and automating both its laboratory analytical procedures and daily organisation activities.

The use of LABWORKS LIMS software within LASVIL Laboratory allowed SNAM Rete Gas to automate its laboratory analytical procedures and management of all related working activities.

LABWORKS supports operators at all stages of their work cycle—from planning of sample collection at relevant points along the network's methane pipelines to final reporting of sample's tested. Lab activity starts with sample login, allowing new samples to be labelled and classified for identification. To make sample identification easier and to speed up all following analytical activities, each sample is given a barcode label.



*Natural gas analysis laboratory, Ferdinando Maghini Technical Supervisor (Snam Rete Gas) with Giorgio Cibra Technical Operator (Snam Rete Gas) during one of the stages of gas measurement based on total synergy between AutosystemXL, TotalChromCS and LABWORKS LIMS*

This system helps to rapidly track all samples throughout the testing process, significantly reducing the need for related information search.

At each sampling stage, a certain quantity of evidence is assigned to each sample as this may have changed since the analysis started.

Once testing has been completed, LABWORKS acquires and validates all the results obtained to support validation operations. The system points out all cases exceeding specified limits. All analytic results are automatically presented in a final report, drastically reducing the possibility of transcription errors and unifying formats in accordance with company standards.

Thanks to LABWORKS, all sample-related data is stored within LIMS central database for easy and rapid search of details. Previously, data was gathered by analysis type and no common reservoir existed. Now all information can be viewed and used to perform statistics or exported to different global IT systems.

The use of LABWORKS LIM software also improved administrative procedures, allowing reports to be printed or emailed to as many addresses as the client requires, which reduces waiting times for results users. LABWORKS also delivers flexibility when obtaining information from the database, in order to fulfil all kinds of requirements. Data can be safely and reliably maintained for even longer than needed thanks to the archive feature.

LABWORKS users can easily customise the operator interface (graphical user interface – GUI) to make their daily work easy and efficient, fulfilling any requirements they may have.



*Claudio Domaneschi  
Gaschromatography Specialist  
(Snam Rete Gas) during a quality  
analysis performed with TurboMass  
GC-MS through LABWORKS LIMS  
software.*