



OPERATIONAL EXCELLENCE

Support and expertise for stockpile monitoring

YOU ARE

- **Operator of gas storage facilities in aquifers** wishing to ensure the quality of gas passing through its facilities and monitor the integrity of surface installations.

YOUR CHALLENGES

As an operator of a gas storage facility, you are concerned with the perfect integrity and tightness of your installations. You constantly monitor the environmental impact of your facilities (looking for migration of trace compounds in the bubble, controlling bubble expansion), and supplement this with sampling campaigns on the surface and in the wells. You need the support of a third party to manage your measurement and chemical analysis equipment and provide you with a high level of expertise.

This includes the development of sampling protocols, analysis resources and test protocols to determine the composition and physico-chemical properties of gases, particularly at trace levels, with short response times compatible with industrial operations.

OUR RESOURCES

NaTran R&I's expertise in the field of sampling and analysis for gas quality control is backed by recognized experience and know-how:

- Expertise in sampling at industrial sites, particularly surface gas storage facilities
- Development of specific methods for sampling combustible gases in matrixes
- CH4 or HC for trace or compositional analysis
- Statistical analysis for performance evaluation of analytical equipment and validation of analytical methods

NaTran R&I has **cutting-edge equipment** and **analysis resources** specific to the problem:

- Gas chromatography systems, fixed or portable, coupled with various detectors (FID, TCD, MS, PFPD), and sometimes pre-concentration systems (TDS);
- Gas sampling systems developed for compounds of interest (especially trace elements) and the analytical methods used afterwards;
- Mobile laboratory for field measurement campaigns;
- Patented device for extracting gas dissolved in a liquid, coupled with a system for analyzing the composition of the extracted gas.





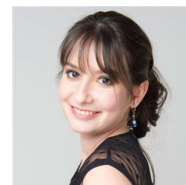
Gaspack software, developed by NaTran R&I teams, can be used to calculate a number of parameters and properties of gases based on their composition.

OUR REFERENCES

- Remote monitoring and operational follow-up of continuous analysis installations, with a high level of cyber security. Remote resolution of analyzer incidents, alerting site operators if intervention is required
- Intervention on request and within very short deadlines to assess operating incidents
- Gas sampling and analysis campaigns (complete composition and trace compounds)
 - ➔ Annular gas, wellhead
 - ➔ Gas bubbling at the bottom of the cellar
 - ➔ Surface network (compressors, laboratory, etc.)
- Training operators in surface gas sampling techniques, raising awareness and providing technical support to operators in charge of analyzer metrology.
- Carrying out material balances (monitoring environmental impact or purification processes prior to emission into the transmission network)
- Benchmarking and advice on the choice of continuous analysis solutions
- Complete performance evaluation of analyzers or analytical methods to check their compliance with operational requirements, with laboratory and field tests.
- Organization of ADR transport of gas samples
- Production of analysis reports, annual reviews, annual REX of analyzer operation, benchmarks of analysis solutions, etc.

YOUR CONTACT

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