



ALS is a proven industry leader providing analytical data and support for radiological testing of soil, water, and air. Shale production creates produced water, flowback water and drill cuttings that could potentially contain NORM and TENORM. With a dedicated and knowledgeable staff, ALS is here to deliver solutions to the ever increasing concerns of NORM and TENORM in the oil and gas industry.

NORM: Naturally Occurring Radioactive Materials

TENORM: Technologically Enhanced Naturally Occurring Radioactive Materials

Potential NORM/TENORM sources related to oil and gas activity:

- Drill cuttings
- Drill muds
- Energy production waste
- Filter cake & socks
- Flowback water
- Production water
- Waste water

Certified:

- Radioactive Materials Handling License from the State of Colorado
- Multiple NELAC and State accreditations
- ISO/IEC 17025:2005 certified

Our premier radiochemistry laboratory in Fort Collins, CO has a staff with more than 25 years experience and expertise, making ALS the right partner when you need legally-defensible data with on-time delivery. State regulations related to these operations typically focus on site design, drilling procedures, well design and specifications, regulatory oversight/monitoring, and handling of materials and wastes.

SERVICE

- On-time data delivery and rapid TAT
- Experienced staff with expertise
- Available after-hours and weekends

VALUE

- Instant access to data with Webtrieve™ and Webtrieve™ Mobile App
- Custom bottle kits with pre-printed labels and COCs

RELIABILITY

- Technical experts that can answer your most difficult questions
- A real focus on quality and process control with a rigorous QA/QC program

Get Connected!

Visit our website for more information about ALS.



Scan the QR Code with your smartphone or search for "ALS Environmental" on YouTube.

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Constituents of Concern for Oil and Gas Activity

While Gross Alpha/Beta, Radium-226, and Radium-228 are the principle radionuclides used to measure NORM and TENORM in the environment, ALS has the ability to meet all your radiological analytical needs. The following tests are the more commonly requested by the agencies. More in-depth analyses are also available.

Primary constituents of concern for radiological characterization include:

PARAMETER

- Gross Alpha and Beta
- Ra-226 (Total radium by alpha)
- Ra-226 (Radon emanation)
- Ra-228
- Isotopic Thorium
- Isotopic Uranium
- Gamma Emitting Radionuclides

METHOD

- USEPA 900.0
- USEPA 903.0
- USEPA 903.1
- USEPA 904.0
- ATSM D3972-90M
- ATSM D3972-90M
- USEPA 901.1 Modified

Since regulatory requirements often vary, you are encouraged to always check with your local regulatory authority or waste disposal facility to see what analyses they require and what analytical methods they accept.

