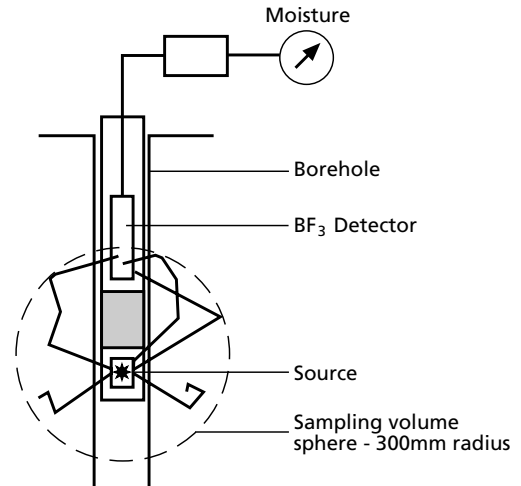


# Moisture gauging

## Technique

Fast neutrons emitted by the source are moderated by collision with hydrogen atoms in moisture contained in the material. These moderated or thermal neutrons are detected by a neutron detector (usually a boron trifluoride (BF<sub>3</sub>) proportional counter) to give a measure of the concentration of hydrogen atoms.

## Geometry



## Applications

- Soil moisture content for agricultural and construction use
- Moisture content of materials in silos
- Continuous moisture content gauging in raw material supplies, e.g. gravel, wood chips, etc.

## Sources

Nuclide	Typical activity	See Page
Americium-241/Beryllium	30-250mCi (1-11GBq-9.25GBq)	B6
Californium-252	0.1µg(54µCi 2MBq)	B15