



Solutions

Genetic Identification

Forensics

Environmental

Petroleum/Industrial

Food Safety

Value Added Services

Coalbed Methane Operations

Baseline Water-Well Testing

Effective **May 1, 2006**, Alberta Environment (AENV) is requiring all Coalbed Methane (CBM) developers to follow the new *“Standard for Baseline Water-well Testing for Coalbed Methane/ Natural Gas in Coal Operations”*. This new standard requires companies to complete baseline testing of water-wells where shallow CBM may be developed. The intent of the new Standard is to:

- Provide consistent protocols for testing, sampling and analyzing groundwater
- Provide scientifically based information
- Provide a regulatory framework for water-well testing and baseline data collection prior to CBM development



Overview of New Regulation

- New Standard developed by AENV (in collaboration with the Alberta Energy and Utilities Board (AEUB)) to ensure protection of groundwater resources
- AENV will conduct a preliminary review of data collected after the first 6 months with a more detailed review after 12 months
- All active water wells within 600 metres of a proposed CBM well (new or re-completion) must be tested prior to drilling
- If no wells are found within the 600 meters, testing must be conducted at the nearest water well within 600-800 metres
- CBM developers must re test water wells after drilling is completed if requested by the landowner/ occupant
- CBM developers must provide AENV and the landowner/occupant with copies of the tests and analysis within 2 months of sampling

Please turn over for:

Testing Requirements, Sampling Procedures, CBM Water-well Testing Services, Contact Us

Testing Requirements

- **Water-well Capacity** - Please refer to Regulation for details
- **Water Quality Data:**
 - **Routine Potability:** (HCO₃, Ca, CO₃, Cl, FI, Dissolved Fe, Total Fe, Mg, Mn, NO₂ + NO₃, pH, K, Na, SO₄, TDS, Alkalinity, Hardness)
 - **Bacteriological Analysis:** (Iron-reducing bacteria, Sulphate-reducing bacteria, Total and Fecal coliform bacteria)
(Note: holding times for bacteriological analysis is 48 hours)
- **Presence and Analysis of Gas:**
 - **Gas compositional analysis to C7+ including oxygen**
(Note: Detection limit of 10ppm required)
 - **Stable Isotope Analysis**



Gas Collection Flow Through Cell

For more information about Maxxam's **CBM Baseline Water-well Testing Services**, please contact one of our Sales and Service Representatives by calling 1-800-386-7247.

British Columbia	Alberta	Ontario	Quebec	Atlantic Canada
Burnaby Toll free: (800) 440-4808	Calgary, Edmonton, Fort McMurray Toll free: (800) 386-7247	Mississauga, Guelph, Burlington Toll free: (800) 563-6266	Montreal Toll free: (877) 462-9926	Bedford & Sydney, NS St. John's, NL Toll free: (800) 565-7227

Sampling Procedures

Maxxam Flow Through Cell

- Available on a daily rental basis or for purchase
- Maxxam can provide onsite training on flow through cell operation

Maxxam CBM Bottle Kits

- Kits specifically designed to contain all necessary bottles, preservatives and forms for sampling Water-wells.
- Will include pre-completed COC's, sampling instruction sheets and supplementary information sheets.

Maxxam's CBM Water-well Testing Service

- Rental or sale of Flow Through Cells
- Onsite training of sampling personnel in operation of flow through cell
- Provision of sampling supplies along with all required forms pre-completed where possible
- Laboratory testing of samples including water and gas samples
- Assistance with electronic reports in a format ready for delivery to Alberta Environment