

58:12A-29. Rules and regulations: annual review; exclusions and limits; retesting

a. The Department of Environmental Protection, in consultation with the **Drinking Water Quality Institute**, established pursuant to section 10 of P.L. 1983, c. 443 (C.58:12A-20), shall develop, by rule or regulation adopted pursuant to the "Administrative Procedure Act," P.L.1968, c. 410 (C.52:14B-1 et seq.), a list of additional parameters which the department deems significant in each county or in any specific area within a county and which shall be tested for as part of any water test to be conducted in accordance with this act. These additional parameters may include, but need not be limited to, arsenic and mercury.

New Jersey Private Well Testing Act

- Program began September 2002
- Testing is required when a property is sold, or if a property is leased.
- Chemical results are valid for 1 year, fecal coliform/E. coli results for 6 month.
- Data is confidential.
- Primarily a Right-to-Know Statute

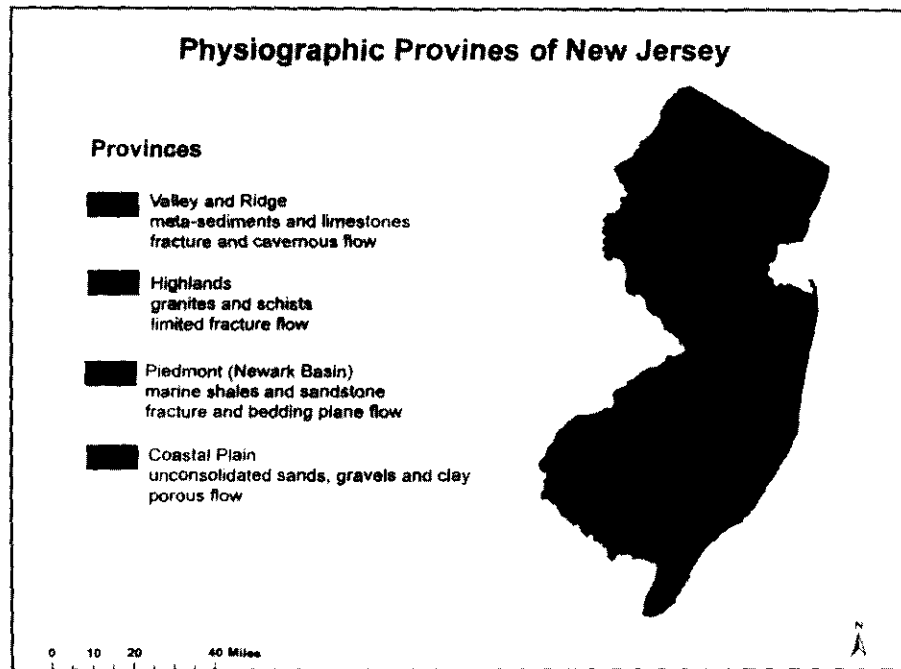
Parameters Analyzed Statewide

Total Coliform - Fecal Coliform/E. coli

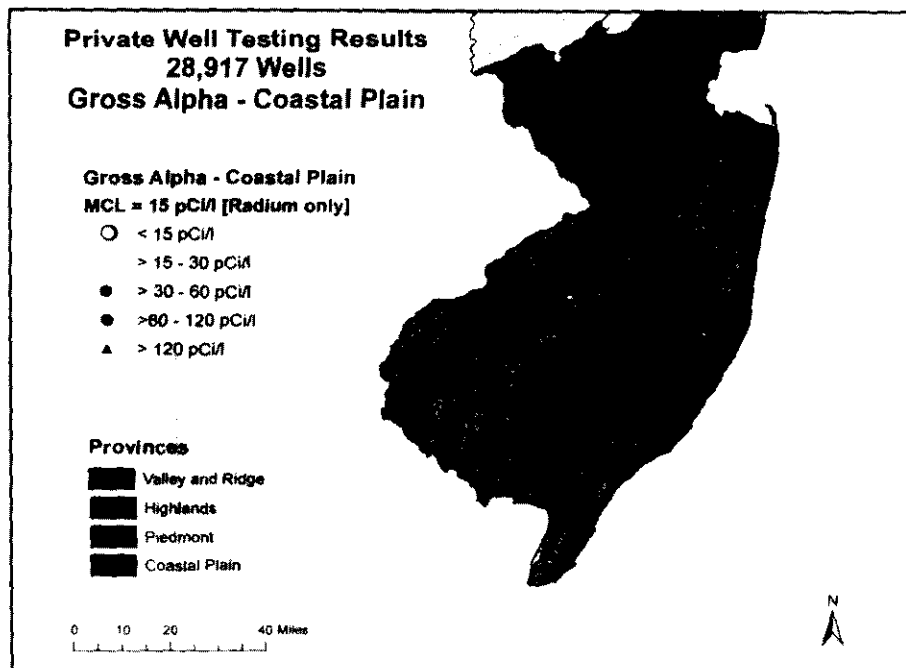
- Nitrate
- Volatile Organic Compounds (26)
- Lead
- Secondary Standards
pH, Manganese, Iron

Contaminants with Regional Testing Requirements

- Gross Alpha – 12 Southern and Central Counties
- Arsenic – 12 Northern Counties
- Mercury – 9 Southern Counties

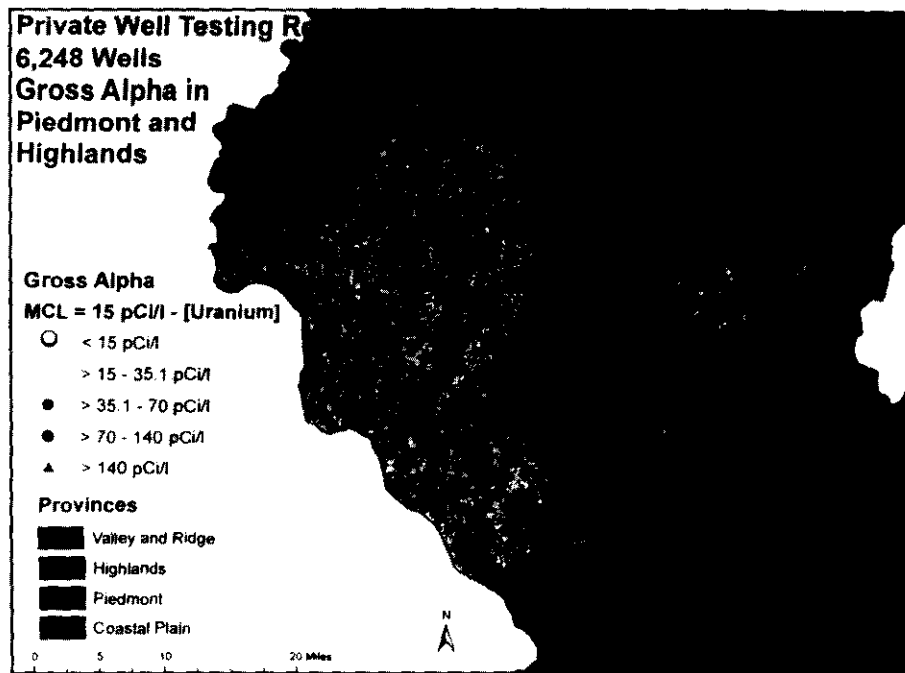


- ## Gross Alpha New Jersey Method
- Radium 224, Radium 226, Radium 228
 - New Jersey 48 hour Gross Alpha Test
 - First sample (24 hours), if gross alpha is greater than 5 pCi/l
 - Second sample (48 hours), if gross alpha >15pCi/l = Exceedance of the Gross Alpha Standard



Gross Alpha in the presence of Uranium

- Gross Alpha MCL = 15 pCi/l – [Uranium]
- Uranium MCL is 30 ug/l or 20.1 pCi/l
- Where Radium and Uranium are both present
 - 15 – 35.1 pCi/l – potential exceedance
 - > 35.1 pCi/l – definitely exceed MCL for gross alpha



Gross Alpha Exceedances (data up to 4/19/2010)

Province	Exceedance
Coastal Plain	10.7%
Piedmont*	3.8%
Highland*	2.5%

*potential exceedance

Range - ND to 481 pCi/l

Treatment Options

- Radium – Cation Exchange Resin (Water Softener or Reverse Osmosis (RO))
- Uranium – Anionic Exchange Resin or Reverse Osmosis (RO)

Recommendation: Add Gross Alpha and Uranium to list of contaminants for Northern Counties

- Merely adding a requirement to test for Gross Alpha is not sufficient to provide guidance for well owners
- All Northern NJ wells are currently tested for arsenic
- Method 200.8 – ICP/MS does both arsenic and uranium (MDL - 0.1 ug/l)