

Heavy Metals	1985 EPA vs. Eastern Coal ¹	UIC 0317-00-001 DN M08-018	UIC 0318-00-061 DN M08-023	UIC 0299-00-061 DN M08-023	UIC 0645-03-023 DN M08-025	UIC 0457-02-023 DN M08-025	UIC 0286-00-023 DN M08-026	UIC 0279-00-009 DN M08-028	Rawl wells ²
Aluminum									8.030
Arsenic	1.8		0.14 (1300%)	0.14 (1300%)	0.15 (1400%)	0.595 (1090%)			0.340
Barium	38.6								2.400
Beryllium		0.00683 (71%)	0.276 (6800%)	0.0156 (290%)	0.148 (3600%)	0.031 (675%)	0.173 (4225%)	0.03 (650%)	0.007
Cadmium	0.54		0.019 (280%)		0.013 (160%)	0.6 (11900%)			<i>Not detected</i>
Chromium	11.92		0.6 (500%)		1 (900%)	0.62 (520%)	0.2 (100%)		0.024 (within Limits)
Copper	5								0.758 (within Limits)
Iron	3833								57.588
Lead	3.89	0.046 (207%)				0.165 (1000%)	0.048 (220%)		0.030
Manganese	20								4.063
Nickel		0.672 (572%)	1.2 (1100%)		6.8 (6700%)		0.5 (400%)		0.285
Selenium	0.23					1.01 (1920%)			0.065
Sodium									189.100
Zinc									0.269 (within limits)

Appendix 2. Known Exceedances of Heavy Metal Standards at Underground Injection Sites and Residential Wells.

Notes:

- All units in parts per million (ppm) with % exceedance in parenthesis where available.
- Values listed are the highest for each set of data. For most listed concentrations, there were multiple detections for the given contaminant. For the UIC Consent Orders, samples were reported monthly and the same metals would be found in exceedance for many consecutive months.
- A blank cell does not necessarily represent a non-detection as the data given for each site only lists exceedances. Blank cells may have been within the limits or not tested for.
- All data aside from Rawl Wells is self-reported by the company. Rawl wells sampled by Dr. Ben Stout.
- DN = Docket Number for West Virginia DEP Consent Orders.

¹ United States Environmental Protection Agency Region IV. Docket No. IV-85-UIC-101.

² Stout, Ben M. "Well Water Quality in the Vicinity of a Coal Slurry Impoundment Near Williamson, West Virginia" Wheeling Jesuit University. December 10, 2004.