Coal Ash Data

Read in results and identify exclusion criteria

FIELD DESCRIPTION

- `state` The state where the site is located.
- `site` The name of the site as it is presented in its groundwater monitoring report.
- `disposal.area` The name of the disposal area(s) as they are presented in the groundwater monitoring report. Note: some wells (`well.id`) monitor groundwater from more than one disposal unit.
- `type` The type of disposal unit. SI = surface impoundment, L= landfill, M = mixed multi-unit (landfill and surface impoundment), and U = unknown.
- `well.id` The identifier given to each monitoring well in the groundwater monitoring report.
- `gradient` The location of the groundwater monitoring well relative to the regulated ash disposal unit it monitors. (may be up/downgradient from multiple disposal areas.)
- `sample.date` The date the well was sampled.
- `contaminant` The contaminant name. These have been standardized to allow for analyses across plants.
- `measurement.unit` The concentration units. These include mg/l, ug/l, pCi/l, and standard units (SU) for pH.
- `below.detection` "<" Indicates that a contaminant was not detected. In this case, the value in the "concentration" column will be the method detection limit (if known) or the reporting limit.
- `concentration` The monitoring result (or, for nondetects, the method detection limit or reporting limit). qualifier Lab qualifiers assigned to the result. See each monitoring report for detailed explanations. link The link to the groundwater monitoring report.

Detection limits

contaminant	measurement.unit	below.detection	n	lod	minlod	maxlod	varlod
Alkalinity, total	mg/l	<	56	5.2	0.0	20.0	4.500000e+00
Alkalinity, total	mg/l	NA	2177	156.5	1.0	3342.0	4.725890e+04
Antimony, total	mg/l	<	17163	0.0	0.0	0.2	0.000000e+00
Antimony, total	mg/l	NA	6228	0.0	0.0	0.1	0.000000e+00
Antimony, total	ug/l	<	6753	1.6	0.0	50.0	7.700000e+00
Antimony, total	ug/l	NA	7155	0.6	0.0	23.0	1.000000e+00
Arsenic, dissolved	mg/l	<	16	0.0	0.0	0.0	0.000000e+00
Arsenic, dissolved	mg/l	NA	4	0.0	0.0	0.1	0.000000e+00
Arsenic, total	mg/l	<	9338	0.0	0.0	0.1	0.000000e+00
Arsenic, total	mg/l	NA	14151	0.0	0.0	21.0	1.000000e-01
Arsenic, total	ug/l	<	3213	3.3	0.0	160.0	3.920000e+01
Arsenic, total	ug/l	NA	10781	15.4	0.0	1890.0	5.925200e+03
Barium, dissolved	mg/l	NA	6	0.1	0.0	0.2	0.000000e+00
Barium, total	mg/l	<	1985	0.0	0.0	0.2	0.000000e+00
Barium, total	mg/l	NA	24253	0.2	0.0	477.0	9.900000e+00
Barium, total	ug/l	<	66	32.1	0.1	408.0	4.980200e+03
Barium, total	ug/l	NA	11136	304.3	0.4	429000.0	2.212508e+07
Beryllium, total	mg/l	<	17639	0.0	0.0	0.1	0.000000e+00
Beryllium, total	mg/l	NA	5767	0.0	0.0	0.8	0.000000e+00
Beryllium, total	ug/l	<	6587	0.8	0.0	25.0	1.200000e+00
Beryllium, total	ug/l	NA	7399	0.7	0.0	57.0	2.700000e+00
Boron, total	mg/l	<	4362	0.1	0.0	2.0	0.000000e+00
Boron, total	mg/l	NA	27629	3.0	0.0	160.0	1.034000e+02
Boron, total	ug/l	<	1748	232.1	3.4	1000.0	1.354525e+05
Boron, total	ug/l	NA	7051	2144.4	1.6	62248.0	2.090561e+07
Cadmium, total	mg/l	<	17451	0.0	0.0	1.0	0.000000e+00
Cadmium, total	mg/l	NA	6004	0.0	0.0	89.3	1.300000e+00
Cadmium, total	ug/l	<	7046	0.6	0.0	20.0	5.000000e-01
Cadmium, total	ug/l	NA	6945	0.6	0.0	197.0	8.900000e+00
Calcium, dissolved	mg/l	NA	6	111.3	45.2	212.0	5.867000e+03
Calcium, total	mg/l	<	51	3.4	0.0	53.5	1.267000e+02
Calcium, total	mg/l	NA	33798	159.6	0.0	84400.0	2.451580e+05
Calcium, total	ug/l	<	7	100.0	100.0	100.0	0.000000e+00
Calcium, total	ug/l	NA	7034	102628.8	6.0	6200000.0	4.885082e+10
Chloride	mg/l	<	508	7.6	0.0	150.0	2.424000e+02
Chloride	mg/l	NA	40096	266.9	0.0	66000.0	1.703298e+06
Chloride	ug/l	NA	442	323877.8	33.2	14700000.0	3.617659e+12
Chromium, total	mg/l	<	15130	0.0	0.0	0.2	0.000000e+00
Chromium, total	mg/l	NA	8405	0.0	0.0	4.8	0.000000e+00
Chromium, total	ug/l	<	3984	3.0	0.1	113.0	2.190000e+01
Chromium, total	ug/l	NA	9912	3.3	0.0	1300.0	6.488000e+02
Cobalt, total	mg/l	<	11687	0.0	0.0	0.2	0.000000e+00
Cobalt, total	mg/l	NA	11901	0.0	0.0	3.6	0.000000e+00
Cobalt, total	ug/l	<	3655	2.4	0.0	233.0	5.120000e+01
Cobalt, total	ug/l	NA	10133	10.1	0.0	4750.0	8.510300e+03
Copper, total	mg/l	NA	2	0.0	0.0	0.0	0.000000e+00
Fluoride	mg/l	<	9140	0.8	0.0	200.0	3.620000e+01
Fluoride	mg/l	NA	30989	0.7	0.0	52.2	2.600000e+00
Fluoride	ug/l	<	74	6087.8	1.0	100000.0	5.149969e+08
Fluoride	ug/l	NA	781	607.5	0.2	1720.0	2.357922e+05
Iron, total	mg/l	NA	6	82.5	0.0	487.0	3.927020e+04
Lead, total	mg/l	<	15727	0.0	0.0	0.1	0.000000e+00
Lead, total	mg/l	NA	7688	0.0	0.0	0.6	0.000000e+00
Lead, total	ug/l	<	6102	1.9	0.0	76.0	1.450000e+01
Lead, total	ug/l	NA	7933	1.8	0.0	475.0	9.690000e+01
Lithium, total	mg/l	<	8332	0.0	0.0	0.5	0.000000e+00
Lithium, total	mg/l	NA	19873	0.2	0.0	18.7	5.000000e-01

Lithium, total	ug/l	<	1462	13.9	0.1	500.0	9.188000e+02
Lithium, total	ug/l	NA	7648	58.3	0.1	10050.0	1.530101e+05
Magnesium, total	mg/l	<	3	1.0	1.0	1.0	0.000000e+00
Magnesium, total	mg/l	NA	2032	457.1	0.0	10600.0	8.896292e+05
Magnesium, total	ug/l	<	9	100.0	100.0	100.0	0.000000e+00
Magnesium, total	ug/l	NA	757	23801.6	65.6	197000.0	7.242412e+08
Manganese, total	mg/l	NA	6	2.9	0.1	10.1	1.570000e+01
Mercury, total	mg/l	<	18035	0.0	0.0	0.1	0.000000e+00
Mercury, total	mg/l	NA	5309	0.0	0.0	3.5	0.000000e+00
Mercury, total	ug/l	<	8006	0.2	0.0	2.0	2.000000e-01
Mercury, total	ug/l	NA	6073	0.1	0.0	5.8	0.000000e+00
Molybdenum, total	mg/l	<	10250	0.0	0.0	1.0	0.000000e+00
Molybdenum, total	mg/l	NA	13234	0.1	0.0	8.1	1.000000e-01
Molybdenum, total	ug/l	<	3112	4.0	0.1	387.0	1.106000e+02
Molybdenum, total	ug/l	NA	10775	47.5	0.0	8300.0	8.389970e+04
Nitrate (as N)	mg/l	<	3	0.0	0.0	0.0	0.000000e+00
Nitrate (as N)	mg/l	NA	3	1.2	0.0	3.5	3.700000e+00
Nitrate/Nitrite	mg/l	<	2	0.0	0.0	0.0	0.000000e+00
Nitrate/Nitrite	mg/l	NA	4	0.9	0.0	3.5	2.900000e+00
Nitrite	mg/l	<	4	0.0	0.0	0.0	0.000000e+00
Nitrite	mg/l	NA	2	0.0	0.0	0.1	0.000000e+00
pH	su	<	1	4.5	4.5	4.5	NA
pH	su	NA	31425	7.0	0.4	668.0	1.500000e+01
pH, field	su	NA	1029	7.1	1.0	11.6	1.300000e+00
Potassium, total	mg/l	NA	1198	9.3	0.3	151.0	2.770000e+02
Potassium, total	ug/l	<	107	8972.0	5000.0	100000.0	3.437445e+08
Potassium, total	ug/l	NA	659	7031.7	270.0	263000.0	3.949090e+08
Radium 226	pCi/l	<	176	0.1	0.0	0.5	0.000000e+00
Radium 226	pCi/l	NA	269	2.4	0.0	50.8	5.730000e+01
Radium 226+228	mg/l	<	5	0.2	0.0	1.0	2.000000e-01
Radium 226+228	mg/l	NA	9	1.9	0.0	3.4	1.200000e+00
Radium 226+228	pCi/l	<	4553	0.7	-2.3	9.2	5.000000e-01
Radium 226+228	pCi/l	NA	29293	2.4	-63.3	302.0	7.460000e+01
Radium 226+228	ug/l	<	1	1.3	1.3	1.3	NA
Radium 228	pCi/l	<	295	0.3	-0.7	21.3	1.600000e+00
Radium 228	pCi/l	NA	150	3.1	-0.1	30.6	3.060000e+01
Selenium, Dissolved	mg/l	<	3	0.0	0.0	0.0	0.000000e+00
Selenium, Dissolved	mg/l	NA	3	0.0	0.0	0.0	0.000000e+00
Selenium, total	mg/l	<	14118	0.0	0.0	0.7	0.000000e+00
Selenium, total	mg/l	NA	9320	0.1	0.0	8.8	2.000000e-01
Selenium, total	pCi/l	<	3	0.0	0.0	0.0	0.000000e+00
Selenium, total	pCi/l	NA	5	1.0	0.4	1.7	3.000000e-01
Selenium, total	ug/l	<	5945	3.2	0.0	200.0	4.050000e+01
Selenium, total	ug/l	NA	8085	4.7	0.0	642.0	5.746000e+02
Silver, total	mg/l	<	7	0.0	0.0	0.0	0.000000e+00
Silver, total	mg/l	NA	1	0.0	0.0	0.0	NA
Sodium, total	mg/l	<	3	0.5	0.1	1.2	4.000000e-01
Sodium, total	mg/l	NA	1626	1097.9	0.5	15200.0	4.829266e+06
Sodium, total	ug/l	<	3	100000.0	100000.0	100000.0	0.000000e+00
Sodium, total	ug/l	NA	834	18659.8	1300.0	525000.0	1.540614e+09
Sulfate	mg/l	<	1771	9.1	0.0	3200.0	9.753700e+03
Sulfate	mg/l	NA	38848	746.9	0.0	70800.0	5.605773e+06
Sulfate	ug/l	<	9	250.0	250.0	250.0	0.000000e+00
Sulfate	ug/l	NA	360	138509.1	300.0	1340000.0	4.322057e+10
Thallium, total	mg/l	<	17631	0.0	0.0	0.1	0.000000e+00
Thallium, total	mg/l	NA	5703	0.1	0.0	474.0	3.940000e+01
Thallium, total	pCi/l	<	16	0.0	0.0	0.0	0.000000e+00
Thallium, total	ug/l	<	7035	0.8	0.0	50.0	5.400000e+00
Thallium, total	ug/l	NA	6903	0.3	0.0	16.6	3.000000e-01
Total Dissolved Solids	mg/l	<	243	43.0	3.4	2490.0	3.532160e+04

Total Dissolved Solids	mg/l	NA	40264	1758.9	0.0	120000.0	1.864812e+07
Total Dissolved Solids	ug/l	NA	371	1088569.8	35000.0	32100000.0	1.576151e+13
Turbidity	NTU	NA	110	17.8	0.4	225.0	1.090100e+03
Turbidity	TDS	NA	361	80.4	0.2	7500.0	3.051957e+05
Zinc, total	mg/l	<	3	0.0	0.0	0.0	0.000000e+00
Zinc, total	mg/l	NA	5	0.1	0.0	0.6	1.000000e-01

measurement.unit	contaminant	below.detection	n	lod	minlod	maxlod	varlod
mg/l	Alkalinity, total	<	56	5.2	0.0	20.0	4.500000e+00
mg/l	Alkalinity, total	NA	2177	156.5	1.0	3342.0	4.725890e+04
mg/l	Antimony, total	<	17163	0.0	0.0	0.2	0.000000e+00
mg/l	Antimony, total	NA	6228	0.0	0.0	0.1	0.000000e+00
mg/l	Arsenic, dissolved	<	16	0.0	0.0	0.0	0.000000e+00
mg/l	Arsenic, dissolved	NA	4	0.0	0.0	0.1	0.000000e+00
mg/l	Arsenic, total	<	9338	0.0	0.0	0.1	0.000000e+00
mg/l	Arsenic, total	NA	14151	0.0	0.0	21.0	1.000000e-01
mg/l	Barium, dissolved	NA	6	0.1	0.0	0.2	0.000000e+00
mg/l	Barium, total	<	1985	0.0	0.0	0.2	0.000000e+00
mg/l	Barium, total	NA	24253	0.2	0.0	477.0	9.900000e+00
mg/l	Beryllium, total	<	17639	0.0	0.0	0.1	0.000000e+00
mg/l	Beryllium, total	NA	5767	0.0	0.0	0.8	0.000000e+00
mg/l	Boron, total	<	4362	0.1	0.0	2.0	0.000000e+00
mg/l	Boron, total	NA	27629	3.0	0.0	160.0	1.034000e+02
mg/l	Cadmium, total	<	17451	0.0	0.0	1.0	0.000000e+00
mg/l	Cadmium, total	NA	6004	0.0	0.0	89.3	1.300000e+00
mg/l	Calcium, dissolved	NA	6	111.3	45.2	212.0	5.867000e+03
mg/l	Calcium, total	<	51	3.4	0.0	53.5	1.267000e+02
mg/l	Calcium, total	NA	33798	159.6	0.0	84400.0	2.451580e+05
mg/l	Chloride	<	508	7.6	0.0	150.0	2.424000e+02
mg/l	Chloride	NA	40096	266.9	0.0	66000.0	1.703298e+06
mg/l	Chromium, total	<	15130	0.0	0.0	0.2	0.000000e+00
mg/l	Chromium, total	NA	8405	0.0	0.0	4.8	0.000000e+00
mg/l	Cobalt, total	<	11687	0.0	0.0	0.2	0.000000e+00
mg/l	Cobalt, total	NA	11901	0.0	0.0	3.6	0.000000e+00
mg/l	Copper, total	NA	2	0.0	0.0	0.0	0.000000e+00
mg/l	Fluoride	<	9140	0.8	0.0	200.0	3.620000e+01
mg/l	Fluoride	NA	30989	0.7	0.0	52.2	2.600000e+00
mg/l	Iron, total	NA	6	82.5	0.0	487.0	3.927020e+04
mg/l	Lead, total	<	15727	0.0	0.0	0.1	0.000000e+00
mg/l	Lead, total	NA	7688	0.0	0.0	0.6	0.000000e+00
mg/l	Lithium, total	<	8332	0.0	0.0	0.5	0.000000e+00
mg/l	Lithium, total	NA	19873	0.2	0.0	18.7	5.000000e-01
mg/l	Magnesium, total	<	3	1.0	1.0	1.0	0.000000e+00
mg/l	Magnesium, total	NA	2032	457.1	0.0	10600.0	8.896292e+05
mg/l	Manganese, total	NA	6	2.9	0.1	10.1	1.570000e+01
mg/l	Mercury, total	<	18035	0.0	0.0	0.1	0.000000e+00
mg/l	Mercury, total	NA	5309	0.0	0.0	3.5	0.000000e+00
mg/l	Molybdenum, total	<	10250	0.0	0.0	1.0	0.000000e+00
mg/l	Molybdenum, total	NA	13234	0.1	0.0	8.1	1.000000e-01
mg/l	Nitrate (as N)	<	3	0.0	0.0	0.0	0.000000e+00
mg/l	Nitrate (as N)	NA	3	1.2	0.0	3.5	3.700000e+00
mg/l	Nitrate/Nitrite	<	2	0.0	0.0	0.0	0.000000e+00
mg/l	Nitrate/Nitrite	NA	4	0.9	0.0	3.5	2.900000e+00
mg/l	Nitrite	<	4	0.0	0.0	0.0	0.000000e+00
mg/l	Nitrite	NA	2	0.0	0.0	0.1	0.000000e+00
mg/l	Potassium, total	NA	1198	9.3	0.3	151.0	2.770000e+02
mg/l	Radium 226+228	<	5	0.2	0.0	1.0	2.000000e-01
mg/l	Radium 226+228	NA	9	1.9	0.0	3.4	1.200000e+00
mg/l	Selenium, Dissolved	<	3	0.0	0.0	0.0	0.000000e+00

mg/l	Selenium, Dissolved	NA	3	0.0	0.0	0.0	0.000000e+00
mg/l	Selenium, total	<	14118	0.0	0.0	0.7	0.000000e+00
mg/l	Selenium, total	NA	9320	0.1	0.0	8.8	2.000000e-01
mg/l	Silver, total	<	7	0.0	0.0	0.0	0.000000e+00
mg/l	Silver, total	NA	1	0.0	0.0	0.0	NA
mg/l	Sodium, total	<	3	0.5	0.1	1.2	4.000000e-01
mg/l	Sodium, total	NA	1626	1097.9	0.5	15200.0	4.829266e+06
mg/l	Sulfate	<	1771	9.1	0.0	3200.0	9.753700e+03
mg/l	Sulfate	NA	38848	746.9	0.0	70800.0	5.605773e+06
mg/l	Thallium, total	<	17631	0.0	0.0	0.1	0.000000e+00
mg/l	Thallium, total	NA	5703	0.1	0.0	474.0	3.940000e+01
mg/l	Total Dissolved Solids	<	243	43.0	3.4	2490.0	3.532160e+04
mg/l	Total Dissolved Solids	NA	40264	1758.9	0.0	120000.0	1.864812e+07
mg/l	Zinc, total	<	3	0.0	0.0	0.0	0.000000e+00
mg/l	Zinc, total	NA	5	0.1	0.0	0.6	1.000000e-01
NTU	Turbidity	NA	110	17.8	0.4	225.0	1.090100e+03
pCi/l	Radium 226	<	176	0.1	0.0	0.5	0.000000e+00
pCi/l	Radium 226	NA	269	2.4	0.0	50.8	5.730000e+01
pCi/l	Radium 226+228	<	4553	0.7	-2.3	9.2	5.000000e-01
pCi/l	Radium 226+228	NA	29293	2.4	-63.3	302.0	7.460000e+01
pCi/l	Radium 228	<	295	0.3	-0.7	21.3	1.600000e+00
pCi/l	Radium 228	NA	150	3.1	-0.1	30.6	3.060000e+01
pCi/l	Selenium, total	<	3	0.0	0.0	0.0	0.000000e+00
pCi/l	Selenium, total	NA	5	1.0	0.4	1.7	3.000000e-01
pCi/l	Thallium, total	<	16	0.0	0.0	0.0	0.000000e+00
su	pH	<	1	4.5	4.5	4.5	NA
su	pH	NA	31425	7.0	0.4	668.0	1.500000e+01
su	pH, field	NA	1029	7.1	1.0	11.6	1.300000e+00
TDS	Turbidity	NA	361	80.4	0.2	7500.0	3.051957e+05
ug/l	Antimony, total	<	6753	1.6	0.0	50.0	7.700000e+00
ug/l	Antimony, total	NA	7155	0.6	0.0	23.0	1.000000e+00
ug/l	Arsenic, total	<	3213	3.3	0.0	160.0	3.920000e+01
ug/l	Arsenic, total	NA	10781	15.4	0.0	1890.0	5.925200e+03
ug/l	Barium, total	<	66	32.1	0.1	408.0	4.980200e+03
ug/l	Barium, total	NA	11136	304.3	0.4	429000.0	2.212508e+07
ug/l	Beryllium, total	<	6587	0.8	0.0	25.0	1.200000e+00
ug/l	Beryllium, total	NA	7399	0.7	0.0	57.0	2.700000e+00
ug/l	Boron, total	<	1748	232.1	3.4	1000.0	1.354525e+05
ug/l	Boron, total	NA	7051	2144.4	1.6	62248.0	2.090561e+07
ug/l	Cadmium, total	<	7046	0.6	0.0	20.0	5.000000e-01
ug/l	Cadmium, total	NA	6945	0.6	0.0	197.0	8.900000e+00
ug/l	Calcium, total	<	7	100.0	100.0	100.0	0.000000e+00
ug/l	Calcium, total	NA	7034	102628.8	6.0	6200000.0	4.885082e+10
ug/l	Chloride	NA	442	323877.8	33.2	14700000.0	3.617659e+12
ug/l	Chromium, total	<	3984	3.0	0.1	113.0	2.190000e+01
ug/l	Chromium, total	NA	9912	3.3	0.0	1300.0	6.488000e+02
ug/l	Cobalt, total	<	3655	2.4	0.0	233.0	5.120000e+01
ug/l	Cobalt, total	NA	10133	10.1	0.0	4750.0	8.510300e+03
ug/l	Fluoride	<	74	6087.8	1.0	100000.0	5.149969e+08
ug/l	Fluoride	NA	781	607.5	0.2	1720.0	2.357922e+05
ug/l	Lead, total	<	6102	1.9	0.0	76.0	1.450000e+01
ug/l	Lead, total	NA	7933	1.8	0.0	475.0	9.690000e+01
ug/l	Lithium, total	<	1462	13.9	0.1	500.0	9.188000e+02
ug/l	Lithium, total	NA	7648	58.3	0.1	10050.0	1.530101e+05
ug/l	Magnesium, total	<	9	100.0	100.0	100.0	0.000000e+00
ug/l	Magnesium, total	NA	757	23801.6	65.6	197000.0	7.242412e+08
ug/l	Mercury, total	<	8006	0.2	0.0	2.0	2.000000e-01
ug/l	Mercury, total	NA	6073	0.1	0.0	5.8	0.000000e+00
ug/l	Molybdenum, total	<	3112	4.0	0.1	387.0	1.106000e+02
ug/l	Molybdenum, total	NA	10775	47.5	0.0	8300.0	8.389970e+04

ug/l	Potassium, total	<	107	8972.0	5000.0	100000.0	3.437445e+08
ug/l	Potassium, total	NA	659	7031.7	270.0	263000.0	3.949090e+08
ug/l	Radium 226+228	<	1	1.3	1.3	1.3	NA
ug/l	Selenium, total	<	5945	3.2	0.0	200.0	4.050000e+01
ug/l	Selenium, total	NA	8085	4.7	0.0	642.0	5.746000e+02
ug/l	Sodium, total	<	3	100000.0	100000.0	100000.0	0.000000e+00
ug/l	Sodium, total	NA	834	18659.8	1300.0	525000.0	1.540614e+09
ug/l	Sulfate	<	9	250.0	250.0	250.0	0.000000e+00
ug/l	Sulfate	NA	360	138509.1	300.0	1340000.0	4.322057e+10
ug/l	Thallium, total	<	7035	0.8	0.0	50.0	5.400000e+00
ug/l	Thallium, total	NA	6903	0.3	0.0	16.6	3.000000e-01
ug/l	Total Dissolved Solids	NA	371	1088569.8	35000.0	32100000.0	1.576151e+13

Count

contaminant	measurement.unit	n	below.detection
Radium 226+228	ug/l	1	1.00
Thallium, total	pCi/l	16	1.00
Silver, total	mg/l	8	0.88
Arsenic, dissolved	mg/l	20	0.80
Mercury, total	mg/l	23344	0.77
Thallium, total	mg/l	23334	0.76
Beryllium, total	mg/l	23406	0.75
Cadmium, total	mg/l	23455	0.74
Antimony, total	mg/l	23391	0.73
Lead, total	mg/l	23415	0.67
Nitrite	mg/l	6	0.67
Radium 228	pCi/l	445	0.66
Chromium, total	mg/l	23535	0.64
Selenium, total	mg/l	23438	0.60
Mercury, total	ug/l	14079	0.57
Thallium, total	ug/l	13938	0.50
Cadmium, total	ug/l	13991	0.50
Nitrate (as N)	mg/l	6	0.50
Selenium, Dissolved	mg/l	6	0.50
Cobalt, total	mg/l	23588	0.50
Antimony, total	ug/l	13908	0.49
Beryllium, total	ug/l	13986	0.47
Molybdenum, total	mg/l	23484	0.44
Lead, total	ug/l	14035	0.43
Selenium, total	ug/l	14030	0.42
Arsenic, total	mg/l	23489	0.40
Radium 226	pCi/l	445	0.40
Selenium, total	pCi/l	8	0.38
Zinc, total	mg/l	8	0.38
Radium 226+228	mg/l	14	0.36
Nitrate/Nitrite	mg/l	6	0.33
Lithium, total	mg/l	28205	0.30
Chromium, total	ug/l	13896	0.29
Cobalt, total	ug/l	13788	0.27
Arsenic, total	ug/l	13994	0.23
Fluoride	mg/l	40129	0.23
Molybdenum, total	ug/l	13887	0.22
Boron, total	ug/l	8799	0.20
Lithium, total	ug/l	9110	0.16
Potassium, total	ug/l	766	0.14
Boron, total	mg/l	31991	0.14
Radium 226+228	pCi/l	33846	0.13
Fluoride	ug/l	855	0.09
Barium, total	mg/l	26238	0.08

Sulfate	mg/l	40619	0.04
Alkalinity, total	mg/l	2233	0.03
Sulfate	ug/l	369	0.02
Chloride	mg/l	40604	0.01
Magnesium, total	ug/l	766	0.01
Total Dissolved Solids	mg/l	40507	0.01
Barium, total	ug/l	11202	0.01
Sodium, total	ug/l	837	0.00
Sodium, total	mg/l	1629	0.00
Calcium, total	mg/l	33849	0.00
Magnesium, total	mg/l	2035	0.00
Calcium, total	ug/l	7041	0.00
pH	su	31412	0.00
Barium, dissolved	mg/l	6	0.00
Calcium, dissolved	mg/l	6	0.00
Chloride	ug/l	442	0.00
Copper, total	mg/l	2	0.00
Iron, total	mg/l	6	0.00
Manganese, total	mg/l	6	0.00
pH	mg/l	14	0.00
pH, field	su	1029	0.00
Potassium, total	mg/l	1198	0.00
Total Dissolved Solids	ug/l	371	0.00
Turbidity	NTU	110	0.00
Turbidity	TDS	361	0.00

Proportion below detection

contaminant	measurement.unit	n	below.detection
Sulfate	mg/l	40619	0.04
Chloride	mg/l	40604	0.01
Total Dissolved Solids	mg/l	40507	0.01
Fluoride	mg/l	40129	0.23
Calcium, total	mg/l	33849	0.00
Radium 226+228	pCi/l	33846	0.13
Boron, total	mg/l	31991	0.14
pH	su	31412	0.00
Lithium, total	mg/l	28205	0.30
Barium, total	mg/l	26238	0.08
Cobalt, total	mg/l	23588	0.50
Chromium, total	mg/l	23535	0.64
Arsenic, total	mg/l	23489	0.40
Molybdenum, total	mg/l	23484	0.44
Cadmium, total	mg/l	23455	0.74
Selenium, total	mg/l	23438	0.60
Lead, total	mg/l	23415	0.67
Beryllium, total	mg/l	23406	0.75
Antimony, total	mg/l	23391	0.73
Mercury, total	mg/l	23344	0.77
Thallium, total	mg/l	23334	0.76
Mercury, total	ug/l	14079	0.57
Lead, total	ug/l	14035	0.43
Selenium, total	ug/l	14030	0.42
Arsenic, total	ug/l	13994	0.23
Cadmium, total	ug/l	13991	0.50
Beryllium, total	ug/l	13986	0.47
Thallium, total	ug/l	13938	0.50
Antimony, total	ug/l	13908	0.49
Chromium, total	ug/l	13896	0.29
Molybdenum, total	ug/l	13887	0.22

Cobalt, total	ug/l	13788	0.27
Barium, total	ug/l	11202	0.01
Lithium, total	ug/l	9110	0.16
Boron, total	ug/l	8799	0.20
Calcium, total	ug/l	7041	0.00
Alkalinity, total	mg/l	2233	0.03
Magnesium, total	mg/l	2035	0.00
Sodium, total	mg/l	1629	0.00
Potassium, total	mg/l	1198	0.00
pH, field	su	1029	0.00
Fluoride	ug/l	855	0.09
Sodium, total	ug/l	837	0.00
Potassium, total	ug/l	766	0.14
Magnesium, total	ug/l	766	0.01
Radium 228	pCi/l	445	0.66
Radium 226	pCi/l	445	0.40
Chloride	ug/l	442	0.00
Total Dissolved Solids	ug/l	371	0.00
Sulfate	ug/l	369	0.02
Turbidity	TDS	361	0.00
Turbidity	NTU	110	0.00
Arsenic, dissolved	mg/l	20	0.80
Thallium, total	pCi/l	16	1.00
Radium 226+228	mg/l	14	0.36
pH	mg/l	14	0.00
Silver, total	mg/l	8	0.88
Selenium, total	pCi/l	8	0.38
Zinc, total	mg/l	8	0.38
Nitrite	mg/l	6	0.67
Nitrate (as N)	mg/l	6	0.50
Selenium, Dissolved	mg/l	6	0.50
Nitrate/Nitrite	mg/l	6	0.33
Barium, dissolved	mg/l	6	0.00
Calcium, dissolved	mg/l	6	0.00
Iron, total	mg/l	6	0.00
Manganese, total	mg/l	6	0.00
Copper, total	mg/l	2	0.00
Radium 226+228	ug/l	1	1.00

Data structure

```
## # A tibble: 41 x 2
##    state      n
##    <chr>  <int>
##  1 NC    107134
##  2 IN     58560
##  3 OH     50788
##  4 GA     48614
##  5 IL     38792
##  6 TX     38509
##  7 KY     35553
##  8 MO     30263
##  9 PA     29867
## 10 AL     29232
## # ... with 31 more rows
```

```
## # A tibble: 265 x 3
## # Groups:   state [41]
##    state site                                        n
##    <chr> <chr>                                   <int>
##  1 AK    Healy Power Plant                        1491
##  2 AL    William C. Gorgas Electric Generating Plant      6802
##  3 AL    E.C. Gaston Steam Plant                  5951
##  4 AL    Plant Greene County                      4952
##  5 AL    James M. Barry Electric Generating Plant         4287
##  6 AL    James H. Miller, Jr., Electric Generating Plant  3614
##  7 AL    Charles R. Lowman Power Plant            2420
##  8 AL    Colbert Fossil Plant                     1206
##  9 AR    White Bluff Plant                        4372
## 10 AR    Flint Creek Power Plant                  3631
## # ... with 255 more rows
```

```
## # A tibble: 547 x 4
## # Groups:   state, site [265]
##    state site                    disposal.area                                n
##    <chr> <chr>                   <chr>                                    <int>
##  1 AK    Healy Power Plant       Unit 1 Ash Pond, Recirculating Pond, Em~  1491
##  2 AL    Charles R. Lowman Power~ Unit #1 Ash Pond, Unit #2/3 Ash Pond, F~  2420
##  3 AL    Colbert Fossil Plant    Ash Disposal Area 4 CCR Unit              1206
##  4 AL    E.C. Gaston Steam Plant Plant Gaston Ash Pond                     3645
##  5 AL    E.C. Gaston Steam Plant Plant Gaston Gypsum Pond                  2306
##  6 AL    James H. Miller, Jr., E~ Plant Miller Ash Pond                    3614
##  7 AL    James M. Barry Electric~ Ash Pond                                 2627
##  8 AL    James M. Barry Electric~ Gypsum Storage Pond                      1660
##  9 AL    Plant Greene County     Ash Pond                                  4952
## 10 AL    William C. Gorgas Elect~ Ash Pond                                 2904
## # ... with 537 more rows
```