

Illinois EPA/Clinton Landfill 3 Groundwater Results

17 July 2018

Parameters	Interwell Org Soil	G34D					G06D			
		IEPA Prim.	IEPA Dupe	IEPA Prim./ Dupe RPD	CLI	RPD	IEPA	CLI	RPD	
Ammonia, dissolved (mg/L)	25	11.1	12.3	10.26%	12	-2.53%	12.2	12	1.65%	2.53%
Arsenic, dissolved (µg/L)	200	28.3	27.3	3.60%	30	-7.61%	92.3	100	-8.01%	7.61%
Boron, dissolved (µg/L)	668	431	429	0.47%	430	0.00%	396	410	-3.47%	0.00%
Cadmium, dissolved (µg/L)	1	5.57	5.89	N/C	<1	N/C	<3	<1	N/C	
Chloride, dissolved (mg/L)	33	3.63	3.66	0.82%	5.5	-40.57%	1.36	1.5	-9.79%	40.57%
Chromium, dissolved (µg/L)	15	<5	<5	N/C	<4	N/C	<5	<4	N/C	
Cyanide, total (mg/L)	0.005	<0.005	<0.005	N/C	<0.005	N/C	<0.005	<0.005	N/C	
Lead, dissolved (µg/L)	2.5	<5	<5	N/C	<1	N/C	<5	<1	N/C	
Magnesium, dissolved (mg/L)	73	58.2	58.5	0.51%	61	-4.44%	58.8	63	-6.90%	4.44%
Mercury, dissolved (µg/L)	0.20	<0.06	<0.06	N/C	<0.2	N/C	<0.06	<0.2	N/C	
Nitrate, dissolved (mg/L)*	1.5	0.108	<0.100	N/C	<0.03	N/C	<0.1	<0.03	N/C	
pH	5.98-8.18	7.2	7.2	0.00%	6.91	4.11%	7.3	6.65	9.32%	4.11%
Spec. Cond. (µmhos/cm)	1383	1208	1215	0.58%	1150	5.21%	1,196	1143	4.53%	5.21%
Sulfate, dissolved (mg/L)	76	<10	<10	N/C	3.4	N/C	<10	1.3	N/C	
Total Dissolved Solids (mg/L)	787	684	686	0.29%	600	13.23%	676	600	11.91%	13.23%
Zinc, dissolved (µg/L)	16	<25	<25	N/C	<6	N/C	<25	<6	N/C	
Ave RPD, IEPA Prim./Dupe:				2.07%						

Parameters	Interwell L Radnor	Intrawell G58M	G32M			G58M		
			IEPA	CLI	RPD	IEPA	CLI	RPD
Ammonia, dissolved (mg/L)	24	—	10.1	9.9	2.00%	7.54	7.4	1.87%
Arsenic, dissolved (µg/L)	346	—	7.59	7.7	-1.44%	30.1	32	-6.12%
Boron, dissolved (µg/L)	622	—	363	370	-1.91%	193	200	-3.56%
Cadmium, dissolved (µg/L)	1	—	5.03	<1	N/C	<3	<1	N/C
Chloride, dissolved (mg/L)	51.8	—	5.62	7.7	-31.23%	8.00	12	-40.00%
Chromium, dissolved (µg/L)	4.6	—	<5	<4	N/C	<5	<4	N/C
Cyanide, total (mg/L)	0.005	—	<0.005	<0.005	N/C	<0.005	<0.005	N/C
Lead, dissolved (µg/L)	1	—	<5	<1	N/C	<5	<1	N/C
Magnesium, dissolved (mg/L)	82.2	—	52.6	55	-4.46%	39.3	41	-4.23%
Mercury, dissolved (µg/L)	0.2	—	<0.06	<0.2	N/C	<0.06	<0.2	N/C
Nitrate, dissolved (mg/L)*	0.14	—	0.114	<0.03	N/C	<0.100	<0.03	N/C
pH	5.79-7.97	—	7.3	6.93	5.20%	7.4	6.99	5.70%
Spec. Cond. (µmhos/cm)	1457	—	1041.00	965	7.58%	927.0	880	5.20%
Sulfate, dissolved (mg/L)	65	291.1	<10	1.1	N/C	93.9	97	-3.25%
Total Dissolved Solids (mg/L)	870	—	584	500	15.50%	552	500	9.89%
Zinc, dissolved (µg/L)	22	—	98	96	2.06%	<25	<6	N/C

N/C = Not calculated

N/S = Not sampled

IEPA Prim. = IEPA primary sample of that well

Dupe = IEPA field duplicate of that well

RPD = Relative Percent Difference

*IEPA result is for nitrate + nitrite, so not necessarily comparable to facility result or permitted standards

<# = Below indicated reporting limit

Bold italic result = exceeds AGQS or MAPC

IEPA Cadmium analyses experienced issues and these results are therefore not considered exceedances

Illinois EPA/PDC Labs Comparison

total RPDs	34
Abs RPDs ≤10%	27
Abs RPDs ≤20%	30
Abs RPDs > 25%	3
RPDs >0	16
RPDs <0	17
RPDs = 0	1
Ave Abs RPD	8.52%
Ave RPD w/negatives	-2.19%