

Illinois EPA/Clinton Landfill 3 Groundwater Results

10 October 2017

Parameters	Interwell Org Soil	Intrawell G09D	G01D						G09D			G24D		
			IEPA Prim.	IEPA Dupe	IEPA Prim./ Dupe RPD	CLI	RPD	IEPA	CLI	RPD	IEPA	CLI	RPD	
Ammonia, dissolved (mg/L)	25	—	21.2	18.6	13.07%	20	-0.50%	11.7	10	15.67%	12.5	11	12.77%	
Arsenic, dissolved (µg/L)	200	—	12.6	12.3	2.41%	12	3.68%	<0.5	<1	N/C	10.2	10	1.98%	
Boron, dissolved (µg/L)	668	—	543	544	0.18%	480	12.41%	422	310	30.60%	428	390	9.29%	
Cadmium, dissolved (µg/L)	1	—	4.31	4.07	5.73%	<1	N/C	<3	<1	N/C	3.86	<1	N/C	
Chloride, dissolved (mg/L)	33	—	3.69	3.67	0.54%	<5	N/C	28.6	28	2.12%	N/S	N/S	N/C	
Chromium, dissolved (µg/L)	15	—	<5	<5	N/C	<4	N/C	<5	<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	N/S	N/S	N/C	
Lead, dissolved (µg/L)	2.5	—	<5	<5	N/C	<1	N/C	<5	<1	N/C	<5	<1	N/C	
Magnesium, dissolved (mg/L)	73	—	55.8	55.1	1.26%	53	4.52%	88.3	85	3.81%	58.3	56	4.02%	
Mercury, dissolved (µg/L)	0.20	—	<0.06	<0.06	N/C	<0.2	N/C	<0.06	<0.2	N/C	<0.06	<0.2	N/C	
Nitrate, dissolved (mg/L)*	1.5	—	<0.1	<0.1	N/C	<0.03	N/C	<0.1	<0.03	N/C	<0.1	N/S	N/C	
pH	5.98–8.18	—	6.8	6.8	0.00%	6.70	1.48%	7.3	7.25	0.69%	N/S	7.09	N/C	
Phenols, total recoverable (µg/L)	5	—	12.8	13.9	8.24%	<5	N/C	<10	<5	N/C	<10	<5	N/C	
Spec. Cond. (µmhos/cm)	1383	—	1308	1307	0.08%	1278	2.28%	1,783	7139	-120.06%	N/S	1109	N/C	
Sulfate, dissolved (mg/L)	76	351.5	<10	<10	N/C	3.1	N/C	431	420	2.59%	N/S	N/S	N/C	
Total Dissolved Solids (mg/L)	787	—	726	722	0.55%	660	9.25%	1,230	1000	20.63%	<25	N/S	N/C	
Zinc, dissolved (µg/L)	16	—	<25	<25	N/C	<6	N/C	<25	<6	N/C	<25	<6	N/C	

Ave RPD, IEPA Prim./Dupe: 3.21%

Parameters	Interwell L Radnor	Intrawell R17M	R17M		
			IEPA	CLI	RPD
Ammonia, dissolved (mg/L)	24	39.1	28.7	33.0	-13.94%
Arsenic, dissolved (µg/L)	346	—	75.8	73	3.76%
Boron, dissolved (µg/L)	622	—	547	480	13.05%
Cadmium, dissolved (µg/L)	1	—	5	<1	N/C
Chloride, dissolved (mg/L)	51.8	—	N/S	N/S	N/C
Chromium, dissolved (µg/L)	4.6	—	<5	<4	N/C
Cyanide, total (mg/L)	0.005	—	<0.005	<0.005	N/C
Lead, dissolved (µg/L)	1	—	<5	<1	N/C
Magnesium, dissolved (mg/L)	82.2	—	73.1	68	7.23%
Mercury, dissolved (µg/L)	0.2	—	<0.06	<0.2	N/C
Nitrate, dissolved (mg/L)*	0.14	—	0.128	N/S	N/C
pH	5.79–7.97	—	N/S	6.69	N/C
Phenols, total recoverable (µg/L)	5	—	32.6	<5	N/C
Spec. Cond. (µmhos/cm)	1457	2106	N/S	1718	N/C
Sulfate, dissolved (mg/L)	65	—	N/S	N/S	N/C
Total Dissolved Solids (mg/L)	870	1107	N/S	N/S	N/C
Zinc, dissolved (µg/L)	22	—	<25	<6	N/C

Illinois EPA/PDC Labs Comparison

total RPDs	23
Abs RPDs ≤10%	15
Abs RPDs ≤20%	20
Abs RPDs > 25%	2
RPDs > 0	20
RPDs < 0	3
RPDs = 0	0
Ave Abs RPD	12.88%
Ave RPD w/negatives	1.19%

N/C = Not calculated

N/S = Not sampled—insufficient water available

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 interwell (and intrawell, if applicable)

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

IEPA Phenols values in G01D and R17M were flagged by laboratory as suspect and are therefore not considered exceedances