

# Illinois EPA/Indian Creek Landfill 2 Groundwater Results

6 February 2019

| Parameters                    | Interwell | G17D       |           |                         |        |         | G14D   |        |         | G27D   |        |         |
|-------------------------------|-----------|------------|-----------|-------------------------|--------|---------|--------|--------|---------|--------|--------|---------|
|                               |           | IEPA Prim. | IEPA Dupe | IEPA Prim./<br>Dupe RPD | ICL2   | RPD     | IEPA   | ICL2   | RPD     | IEPA   | ICL2   | RPD     |
| Ammonia, dissolved (mg/L)     | 8.0       | 4.77       | 4.82      | 1.04%                   | 4.9    | -2.17%  | 5.79   | 6.0    | -3.56%  | 1.64   | 1.6    | 2.47%   |
| Arsenic, dissolved (µg/L)     | 150       | 61.8       | 61.8      | 0.00%                   | 67     | -8.07%  | 32.0   | 41     | -24.66% | 37.1   | 41     | -9.99%  |
| Boron, dissolved (µg/L)       | 410       | 174        | 167       | 4.11%                   | 190    | -10.82% | 216    | 230    | -6.28%  | 184    | 210    | -13.20% |
| Cadmium, dissolved (µg/L)     | 1         | <3         | <3        | N/C                     | <1     | N/C     | <3     | <1     | N/C     | <3     | <1     | N/C     |
| Chloride, dissolved (mg/L)    | 6.2       | 3.29       | 2.77      | 17.16%                  | 3.9    | -25.11% | 1.77   | 2.5    | -34.19% | 3.03   | 3.9    | -25.11% |
| Chromium, dissolved (µg/L)    | 4         | <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     | <0.005 | <0.005 | N/C     |
| Lead, dissolved (µg/L)        | 406.6     | <5         | <5        | N/C                     | <1     | N/C     | <5     | <1     | N/C     | <5     | <1     | N/C     |
| Magnesium, dissolved (mg/L)   | 59        | 38.2       | 38        | 0.52%                   | 44     | -14.37% | 38.2   | 42     | -9.48%  | 32.7   | 39     | -17.57% |
| Mercury, dissolved (µg/L)     | 0.2       | <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)*    | 0.38      | <0.1       | <0.1      | N/C                     | 0.04   | N/C     | <0.1   | 0.07   | N/C     | <0.1   | 0.03   | N/C     |
| pH                            | 6.60-7.90 | 7.4        | 7.5       | 1.34%                   | 7.30   | 2.03%   | 7.6    | 7.58   | 0.26%   | 7.7    | 7.65   | 0.65%   |
| Spec. Cond. (µmhos/cm)        | 1100      | 745        | 748       | 0.40%                   | 717.8  | 3.92%   | 750    | 735.3  | 1.98%   | 652    | 633.6  | 2.86%   |
| Sulfate, dissolved (mg/L)     | 16        | <10        | <10       | N/C                     | <1     | N/C     | <10    | 3.6    | N/C     | <10    | 1.2    | N/C     |
| Total Dissolved Solids (mg/L) | 590       | 382        | 338       | 12.22%                  | 405    | -11.76% | 386    | 400    | -3.56%  | 348    | 350    | -0.57%  |
| Zinc, dissolved (µg/L)        | 44        | <25        | <25       | N/C                     | <6     | N/C     | <25    | <6     | N/C     | <25    | 6.5    | N/C     |

Ave RPD, IEPA Prim./Dupe: 4.60%

| Parameters                    | Interwell | G28D   |        |         |
|-------------------------------|-----------|--------|--------|---------|
|                               |           | IEPA   | ICL2   | RPD     |
| Ammonia, dissolved (mg/L)     | 8.0       | 3.44   | 3.6    | -4.55%  |
| Arsenic, dissolved (µg/L)     | 150       | 63.8   | 67     | -4.89%  |
| Boron, dissolved (µg/L)       | 410       | 176    | 190    | -7.65%  |
| Cadmium, dissolved (µg/L)     | 1         | <3     | <1     | N/C     |
| Chloride, dissolved (mg/L)    | 6.2       | 2.96   | 4.3    | -36.91% |
| Chromium, dissolved (µg/L)    | 4         | <5     | <4     | N/C     |
| Cyanide, total (mg/L)         | 0.005     | <0.005 | <0.005 | N/C     |
| Lead, dissolved (µg/L)        | 406.6     | <5     | <1     | N/C     |
| Magnesium, dissolved (mg/L)   | 59        | 34.8   | 38     | -8.79%  |
| Mercury, dissolved (µg/L)     | 0.2       | <0.06  | <0.2   | N/C     |
| Nitrate, dissolved (mg/L)*    | 0.38      | <0.1   | <0.03  | N/C     |
| pH                            | 6.60-7.90 | 7.6    | 7.24   | 4.85%   |
| Spec. Cond. (µmhos/cm)        | 1100      | 687    | 674.4  | 1.85%   |
| Sulfate, dissolved (mg/L)     | 16        | <10    | 1.3    | N/C     |
| Total Dissolved Solids (mg/L) | 590       | 354    | 395    | -10.95% |
| Zinc, dissolved (µg/L)        | 44        | <25    | <6     | N/C     |

## Illinois EPA/PDC Labs Comparison

|                     |        |
|---------------------|--------|
| total RPDs          | 32     |
| Abs RPDs ≤10%       | 21     |
| Abs RPDs ≤20%       | 27     |
| Abs RPDs > 25%      | 4      |
| RPDs > 0            | 9      |
| RPDs < 0            | 23     |
| Ave Abs RPD         | 9.85%  |
| Ave RPD w/negatives | -8.54% |

N/C = Not calculated

IEPA prim. = IEPA primary sample of that well

IEPA Dupe = 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)