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Supplementary Data to be published on *ES&T* web site.

List of Tables:

1. Spatial differentiation of contaminant distributions between ML-2 and ML-3. The data represent the absolute value of the difference between ML-2 and ML-3 with concentrations in μM units for the average of four shallow or four deep sample points at the time point shown.
2. Correlation coefficients and statistical significance for various biogeochemical important parameters. In each case a ranked correlation coefficient and two tailed t-test are performed to evaluate normality of the distribution.

Table 1:

Shallow Sample Points	TCE	cis-DCE	VC	Ethene	Cl/C-Ratio
July	0.29 ± 1.49	0.20 ± 0.36	0.47 ± 0.69	0.33 ± 0.67	0.12 ± 0.24
August	1.67 ± 2.92	0.53 ± 1.24	0.24 ± 0.41	0.00 ± 0.00	0.15 ± 0.25
September	0.68 ± 2.71	0.17 ± 1.32	0.31 ± 0.61	0.40 ± 0.80	0.14 ± 0.33
November	2.40 ± 3.18	0.13 ± 2.04	0.42 ± 0.57	0.00 ± 0.00	0.14 ± 0.25
Deep Sample Points	TCE	cis-DCE	VC	Ethene	Cl/C-Ratio
July	0.02 ± 0.10	0.19 ± 0.75	0.32 ± 1.19	0.01 ± 1.15	0.04 ± 0.13
August	0.06 ± 0.04	0.20 ± 0.90	0.05 ± 1.13	1.46 ± 1.16	0.03 ± 0.07
September	0.00 ± 0.00	0.58 ± 1.46	0.19 ± 0.77	0.22 ± 1.10	0.05 ± 0.16
November	0.00 ± 0.00	0.53 ± 1.66	1.20 ± 1.57	0.58 ± 1.06	0.07 ± 0.17

Table 2:

Parameter A	Parameter B	Correlation Coefficient (ρ)	t-calculated	t-critical ($\alpha=0.01$)
Reduction Potential (n=47)	TCE (n=59)	$\rho = +0.3405$ $\rho_{\text{rank}} = +0.5912$	$ t = 2.430$ $ t_{\text{rank}} = 4.917$	2.415
Reduction Potential (n=47)	cis-DCE (n=59)	$\rho = +0.4361$ $\rho_{\text{rank}} = +0.5001$	$ t = 3.251$ $ t_{\text{rank}} = 3.874$	2.415
Reduction Potential (n=47)	Chloroethene (n=59)	$\rho = -0.7006$ $\rho_{\text{rank}} = -0.6522$	$ t = 6.586$ $ t_{\text{rank}} = 5.772$	2.415
Reduction Potential (n=47)	Ethene (n=59)	$\rho = -0.7475$ $\rho_{\text{rank}} = -0.6060$	$ t = 7.550$ $ t_{\text{rank}} = 5.110$	2.415
Reduction Potential (n=47)	Ferrous Iron (n=54)	$\rho = -0.6207$ $\rho_{\text{rank}} = -0.4606$	$ t = 5.311$ $ t_{\text{rank}} = 3.481$	2.415
Reduction Potential (n=47)	Sulfide (n=45)	$\rho = -0.5491$ $\rho_{\text{rank}} = -0.5844$	$ t = 4.407$ $ t_{\text{rank}} = 4.831$	2.418
Chloroethene (n=59)	Methane (n=59)	$\rho = +0.5137$ $\rho_{\text{rank}} = +0.5905$	$ t = 4.520$ $ t_{\text{rank}} = 5.525$	2.395
Chloroethene (n=59)	Oxygen (n=58)	$\rho = -0.3742$ $\rho_{\text{rank}} = -0.3164$	$ t = 3.019$ $ t_{\text{rank}} = 2.496$	2.397
Ethene (n=59)	Methane (n=59)	$\rho = +0.4728$ $\rho_{\text{rank}} = +0.5580$	$ t = 4.051$ $ t_{\text{rank}} = 5.076$	2.395
Hydrogen (n=53)	Ferrous Iron (n=54)	$\rho = +0.3375$ $\rho_{\text{rank}} = +0.0678$	$ t = 2.560$ $ t_{\text{rank}} = 0.485$	2.405
Hydrogen (n=53)	TCE (n=59)	$\rho = +0.0215$ $\rho_{\text{rank}} = +0.3562$	$ t = 0.154$ $ t_{\text{rank}} = 2.722$	2.405
Hydrogen (n=53)	Any Other Parameter (n>44)	$\rho < +0.2588$ $\rho_{\text{rank}} < +0.2005$	$ t < 1.913$ $ t_{\text{rank}} < 1.461$	2.420