

**Table S1.**Comparison between simulated and monitored PCE concentration values (mg/L)

Well number	Date	Monitoring Value	Simulated value	Relative error
G-1-12	2010/9/13	27.7	27.70	0.00%
	2012/10/8	19	19.30	1.58%
	2013/4/2	23.2	23.15	-0.22%
	2013/9/16	16	16.17	1.06%
	2014/3/3	3.59	3.75	4.46%
	2014/9/8	0.24	1.00	316.67%
	2015/7/27	0.114	0.15	31.58%
V-1-12	2010/9/26	6.6	7.16	8.48%
	2012/9/7	14	13.85	-1.07%
	2013/4/11	7.11	7.27	2.25%
	2013/9/19	1.9	2.01	5.79%
	2014/3/19	0.594	0.561	-5.56%
	2014/9/10	0.031	0.034	9.68%
	2015/9/16	0.0373	0.033	-11.53%
J-1-12	2010/9/16	18.1	18.05	-0.28%
	2012/2/14	7.04	7.21	2.41%
	2012/9/4	7.5	7.55	0.67%
	2013/4/9	1.7	1.71	0.59%
	2013/9/23	6	5.87	-2.17%
	2014/9/18	0.0024	0.0026	8.33%
JJ-1-12	2010/9/12	10	9.4	-6.00%
	2012/2/14	5.12	5.18	1.17%
	2012/9/10	6.2	6.25	0.81%
	2013/4/9	4.6	4.65	1.09%
	2013/9/26	0.89	0.85	-4.49%

2014/3/4	1.99	2.05	3.02%
2014/9/11	1	1.02	2.00%
2015/7/28	0.685	0.68	-0.73%

**Table S2.** Shallow main vector point coordinates and concentration table

Name	X	Y	PCE (mg/L)
A	240801.208	3894016.422	1.2
AA	241011.9093	3893875.823	2.4
C	240870.7274	3894143.515	36.4
D	240885.0744	3894131.318	17.7
GMW3	240966.218	3894048.876	3.3
II	240931.5792	3893981.279	4.2
K	240892.6172	3894033.835	3.3
MW-7	240908.6325	3893891.529	0
T3-1-15	240821.7429	3893963.796	0
X	241022.4175	3893847.975	2.7
J	240997.7898	3893969.099	18.1
G	240899.8408	3894110.863	27.7
Q	240958.9753	3894012.332	15.6
S	240975.5467	3894015.081	4.9
V	240988.1144	3893980.024	6.6
U	240969.3289	3893976.319	1.6
JJ	241005.7886	3893943.101	10
T	240979.6589	3893998.617	7.4

**Table S3.** Coordinates and concentration table of main vector points in the middle layer

Name	X	Y	PCE (mg/L)
A	240801.208	3894016.422	0.037
AA	241011.9093	3893875.823	1.3
B	240816.5538	3894002.267	0.0024

C	240870.7274	3894143.515	13.7
CC	241039.0027	3893794.071	0.0092
D	240885.0744	3894131.318	4.92
DD	241010.593	3893740.951	0.00038
E	240885.2519	3894102.175	1.1
EE	241086.8938	3893772.11	0.0011
F	240910.7603	3894140.695	0.388
FF	241054.9827	3893687.557	0
I	240966.218	3894048.876	0.23
II	240947.6439	3894122.753	0.015
K	240892.6172	3894033.835	0.0095
L	240904.7616	3894026.057	3.6
M	240968.8438	3894067.239	0.014
A	240801.208	3894016.422	0.037
AA	241011.9093	3893875.823	1.3

**Table S4.** Coordinates and concentration tables of deep main vector points

Name	X	Y	PCE (mg/L)
A	240801.208	3894016.422	0
AA	241011.9093	3893875.823	0
B	240816.5538	3894002.267	0
C	240870.7274	3894143.515	3
CC	241039.0027	3893794.071	0
D	240885.0744	3894131.318	8
G	240898.6754	3894117.365	0
H	240922.2923	3894098.971	0
HH	240859.3478	3894056.532	1
I	240915.3602	3894013.214	0
II	240931.5792	3893981.279	0
K	240889.0435	3894043.997	0

L	240918.0105	3894011.178	0
M	240966.218	3894048.876	1
N	240947.6439	3894122.753	0
P	240960.1374	3894033.817	0
A	240801.208	3894016.422	0
AA	241011.9093	3893875.823	0

**Figure S1.** Rainfall of the study area

