

Table A-1. Pre- and postflushing soil concentrations of PCE.

Preflushing						Postflushing [†]					
Location	Depth bgs (m)	mg PCE/kg soil	Location	Depth bgs (m)	mg PCE/kg soil	Location	Depth bgs (m)	mg PCE/kg soil	Location	Depth bgs (m)	mg PCE/kg soil
IW001	7.92	767	M1	7.96	704	M04	8.02	0.8	SPFC1	7.74	0.0
IW001	7.96	148	M1	7.99	13200	M04	8.05	0.1	SPFC1	7.86	0.8
IW001	7.99	168	M1	8.02	1960	M04	8.08	0.5	SPFC1	7.99	4.6
IW001	8.02	253	M1	8.05	6800	M04	8.11	0.0	SPFC1	8.36	16.6
IW001	8.05	92900	M1	8.08	1650	M04	8.14	0.0	SPFC1	8.49	10.5
IW001	8.08	430	M1	8.11	364	M04	8.17	0.8	SPFC1	8.64	1.5
IW001	8.11	300	M1	8.14	156	M04	8.20	0.2	SPFC1	9.57	22.5
IW001	8.69	119	M1	8.17	211	M04	8.23	0.4	SPFC1	9.71	27.0
IW001	8.72	170	M1	8.20	207	M04	8.26	2.5	SPFC1	9.85	20.2
IW001	8.75	139	M1	8.23	208	M04	8.29	3.5	SPFC1	10.19	24.8
IW001	8.78	167	M1	8.26	395	M04	8.32	10.0	SPFC1	10.32	27.9
IW001	9.13	158	M1	8.29	3730	M04	8.35	16.0	SPFC1	10.47	16.9
IW001	9.16	1740	M1	8.32	271	M04	8.78	47.2			
IW001	9.19	145	M1	8.56	74.3	M04	8.81	44.1	SPFC2	7.74	0.0
IW001	9.22	148	M1	8.60	92.8	M04	8.84	60.1	SPFC2	7.86	0.0
IW001	9.25	195	M1	8.63	109	M04	8.87	45.0	SPFC2	7.99	0.0
IW001	9.28	113	M1	8.66	120	M04	8.90	52.4	SPFC2	8.35	0.0
IW001	9.31	65.8	M1	8.69	141	M04	8.93	73.3	SPFC2	8.47	0.0
IW001	9.34	72.5	M1	8.72	128	M04	8.96	63.6	SPFC2	8.61	0.0
IW001	9.40	77.4	M1	8.75	172	M04	8.99	77.8	SPFC2	8.93	0.0
IW001	9.43	89.7	M1	8.78	112	M04	9.02	95.7	SPFC2	8.99	0.0
IW001	9.46	69.8	M1	8.81	98.7	M04	9.05	81.1	SPFC2	9.05	0.0
			M1	8.84	132	M04	9.09	175	SPFC2	9.11	0.0
IW002	7.92	0.0	M1	8.87	146	M04	9.12	449	SPFC2	9.17	0.0
IW002	7.96	9.5	M1	8.90	166	M04	9.15	10020	SPFC2	9.24	0.0
IW002	7.99	17.6	M1	8.93	9000				SPFC2	9.57	0.0
IW002	8.02	32.1	M1	9.17	105	M05	8.02	0.7	SPFC2	9.69	0.0
IW002	8.05	75.9	M1	9.20	74.8	M05	8.05	0.0	SPFC2	9.81	0.0
IW002	8.08	121	M1	9.24	66.3	M05	8.08	0.2	SPFC2	9.97	0.0
IW002	8.11	31900	M1	9.27	69.3	M05	8.11	0.6	SPFC2	10.09	0.0
IW002	8.14	56000	M1	9.30	65.5	M05	8.14	0.0	SPFC2	10.21	4030
IW002	8.52	77.8	M1	9.33	61.0	M05	8.17	1.2	SPFC2	10.21	13300
IW002	8.55	112	M1	9.36	39.2	M05	8.20	0.2	SPFC2	10.74	0.0
IW002	8.58	2260	M1	9.39	70.1	M05	8.23	0.5	SPFC2	10.90	0.0
IW002	8.61	244	M1	9.42	61.2	M05	8.26	0.2			
IW002	8.64	187	M1	9.45	95.9	M05	8.29	0.0	SPFC3	7.70	0.6
IW002	8.67	133	M1	9.48	81.2	M05	8.32	0.0	SPFC3	7.85	0.0
IW002	8.70	233	M1	9.51	61.8	M05	8.78	0.5	SPFC3	8.00	0.0
IW002	8.73	128	M1	9.54	80.0	M05	8.81	0.0	SPFC3	8.34	0.2
IW002	8.76	230				M05	8.84	0.0	SPFC3	8.90	0.8
IW002	8.79	146	M02	7.96	9.9	M05	8.87	0.0	SPFC3	9.04	0.5
IW002	8.82	2440	M02	7.99	15.1	M05	8.90	1.4	SPFC3	9.19	0.1
IW002	8.85	46100	M02	8.02	27.1	M05	8.93	0.2	SPFC3	9.54	0.1
IW002	9.11	859	M02	8.05	13.8	M05	8.96	0.2	SPFC3	9.72	0.2
IW002	9.14	562	M02	8.08	18.2	M05	8.99	0.1	SPFC3	9.91	4.4
IW002	9.17	77.8	M02	8.11	41.1	M05	9.02	0.0	SPFC3	10.12	0.3
IW002	9.20	27500.0	M02	8.14	38.1	M05	9.05	0.1	SPFC3	10.26	0.0
IW002	9.24	876	M02	8.17	33.5	M05	9.09	0.6	SPFC3	10.42	0.6
IW002	9.27	109	M02	8.20	29.1	M05	9.12	0.9			
IW002	9.30	127	M02	8.23	17.3	M05	9.15	0.0	SPFC4	7.76	0.0
IW002	9.33	141	M02	8.26	13.7				SPFC4	8.03	0.0
IW002	9.36	102	M02	8.29	16.7	M06	8.02	5.2	SPFC4	8.34	144
			M02	8.32	11.0	M06	8.05	0.4	SPFC4	8.55	14900
IW003	7.96	7.1	M02	8.72	24.9	M06	8.08	0.4	SPFC4	8.75	336
IW003	7.99	7.9	M02	8.75	14.1	M06	8.11	0.1	SPFC4	8.92	14.8
IW003	8.02	8.6	M02	8.78	22.4	M06	8.14	0.0	SPFC4	9.07	528
IW003	8.05	11.3	M02	8.81	40.9	M06	8.17	0.6	SPFC4	9.22	1770
IW003	8.08	12.1	M02	8.84	44.2	M06	8.20	1.3	SPFC4	9.37	33.5
IW003	8.11	19.2	M02	8.87	53.4	M06	8.23	0.3	SPFC4	9.53	0.0
IW003	8.14	33.1	M02	8.90	36.3	M06	8.26	1.1	SPFC4	9.68	0.0
IW003	8.17	69.6	M02	8.93	23.9	M06	8.29	2.4	SPFC4	9.83	37.8
IW003	8.53	7.2	M02	8.96	37.3	M06	8.32	0.6	SPFC4	9.98	48.1
IW003	8.56	1020.0	M02	8.99	47.4				SPFC4	10.13	24.5
IW003	8.60	89.0	M02	9.02	51.9	M07	7.96	0.0	SPFC4	10.29	18.5
IW003	8.63	202	M02	9.05	57.5	M07	7.99	0.5	SPFC4	10.44	19.5
IW003	8.66	85.4				M07	8.02	0.0	SPFC4	10.59	16.5
IW003	8.69	154	M03	7.96	0.6	M07	8.05	0.0			
IW003	8.72	59.2	M03	7.99	0.7	M07	8.08	0.2	SPFC5	7.77	0.0
IW003	8.75	114	M03	8.02	0.8	M07	8.11	0.7	SPFC5	8.32	4510
IW003	8.78	202	M03	8.05	1.7	M07	8.14	0.7	SPFC5	8.93	1200
IW003	8.81	42500	M03	8.08	1.3	M07	8.17	0.7	SPFC5	9.08	13900
IW003	8.84	34500	M03	8.11	2.1	M07	8.20	0.1	SPFC5	9.20	2880
IW003	8.87	97.0	M03	8.14	3.9	M07	8.23	0.0	SPFC5	9.33	39.1
IW003	8.90	143	M03	8.17	2.8	M07	8.26	0.5	SPFC5	9.53	0.0
IW003	9.14	664	M03	8.20	2.4	M07	8.29	0.5	SPFC5	9.68	0.0
IW003	9.17	40.6	M03	8.23	1.7	M07	8.32	1.6	SPFC5	9.83	45.0
IW003	9.20	39.9	M03	8.26	4.4	M07	8.72	37.2	SPFC5	9.97	626
IW003	9.24	62.8	M03	8.29	3.8	M07	8.75	51.4	SPFC5	10.12	33.7
IW003	9.27	596	M03	8.72	24.7	M07	8.78	47.9	SPFC5	10.24	62.0
IW003	9.30	575	M03	8.75	30.1	M07	8.81	38.4	SPFC5	10.36	54.1
IW003	9.33	60.0	M03	8.78	40.3	M07	8.84	30.3	SPFC5	10.50	34.1
IW003	9.36	42.6	M03	8.81	42.9	M07	8.87	34.0			
IW003	9.39	46.6	M03	8.84	44.9	M07	8.90	43.8	SPFC6	8.92	7.5
IW003	9.42	47.8	M03	8.87	28.6	M07	8.93	21.8	SPFC6	9.07	3.7
			M03	8.90	38.0				SPFC6	9.23	0.5
			M03	8.93	30.9				SPFC6	9.54	0.0
			M03	8.96	41.0				SPFC6	9.72	11.5
			M03	8.99	35.7				SPFC6	9.91	0.2
			M03	9.02	39.9				SPFC6	10.13	164
			M03	9.05	22.6				SPFC6	10.29	327
									SPFC6	10.45	1.7

[†] Only values from 7.9 - 9.6 m bgs were averaged.

Table A-2. Pre- and postflushing aqueous PCE and ethanol concentrations.

MLS	Depth bgs (m)	Preflushing 16 July 1998	Postflushing 22 September 1998		PCE fraction reduction ^a
		PCE (mg/L)	PCE (mg/L)	Ethanol (percent)	
6	8.1	17.9	0.0	0.0	1.00
4	9.4	117.3	0.3	0.0	1.00
2	8.1	89.3	0.5	0.0	0.99
4	8.7	53.3	0.3	0.0	0.99
2	8.7	74.2	0.5	0.0	0.99
4	9.1	97.1	0.6	0.0	0.99
2	9.1	95.1	0.7	0.0	0.99
4	8.1	14.3	0.1	0.0	0.99
2	9.9	31.8	0.5	0.0	0.98
3	8.7	74.4	1.3	0.1	0.98
2	9.4	34.9	0.6	0.0	0.98
6	8.7	22.0	0.5	0.0	0.98
6	9.1	64.2	2.1	0.0	0.97
4	9.9	99.3	7.6	0.0	0.92
7	8.1	39.3	5.0	0.2	0.87
3	8.1	63.1	8.6	0.0	0.86
7	9.1	84.1	14.5	4.7	0.83
6	9.4	24.1	4.7	2.1	0.81
3	9.1	66.9	14.6	2.1	0.78
6	9.9	61.0	13.4	5.9	0.78
3	9.4	78.7	25.1	0.9	0.68
5	8.1	0.1	0.1	0.0	0.33
1	8.1	95.0	83.5	0.0	0.12
3	9.9	96.6	85.8	3.8	0.11
1	9.4	91.6	150.3	10.3	-0.64
1	9.1	73.2	120.9	6.0	-0.65
1	9.9	70.9	125.1	17.8	-0.76
1	8.7	52.9	99.9	4.9	-0.89
7	8.7	64.6	156.7	4.9	-1.43
7	9.4	7.8	69.4	1.7	-7.94
7	9.9	4.2	109.4	3.9	-25.08
5	8.7	0.1	68.7	5.6	-641.21
5	9.1	0.1	175.4	16.7	-1208.73
5	9.9	0.0	79.3	10.2	-79265.00
5	9.4	0.0	146.5	12.8	-146478.00
Average		53.1	44.9	3.3	0.15

^a Fraction reduction defined as (preflushing - postflushing)/preflushing.

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(b) Model 2 (3 IWs, 6 RWs)



Figure A-1. MODLFOW simulation streamlines from two well configurations: (a) 2 injection wells surrounded by 5 recovery wells, and (b) 3 injection wells surrounded by 6 recovery wells.