

Table J.5. PCP day 218 perturbation: raw K+ data.
K+ conc. (mg/L)

Set A	PCP	Triplate Analysis		Account for 1:5 Dilution			Average	s	
6	L6	0.387	0.387	0.394	1.935	1.935	1.97	1.946667	0.020207
5	L5	0.311	0.33	0.318	1.555	1.65	1.59	1.598333	0.048045
4	L4	0.313	0.324	0.318	1.565	1.62	1.59	1.591667	0.027538
3	L3	0.38	0.383	0.372	1.9	1.915	1.86	1.891667	0.028431
2	L2	0.36	0.363	0.349	1.8	1.815	1.745	1.786667	0.036856
1	L1	0.341	0.339	0.345	1.705	1.695	1.725	1.708333	0.015275

K+ conc. (mg/L)

Set B	PCP	Triplate Analysis		Account for 1:5 Dilution			Average	s	
6	L6	0.379	0.358	0.384	1.895	1.79	1.92	1.868333	0.068981
5	L5	0.369	0.381	0.374	1.845	1.905	1.87	1.873333	0.030139
4	L4	0.394	0.388	0.389	1.97	1.94	1.945	1.951667	0.016073
3	L3	0.397	0.412	0.41	1.985	2.06	2.05	2.031667	0.040723
2	L2	0.36	0.373	0.358	1.8	1.865	1.79	1.818333	0.040723
1	L1	0.33	0.319	0.34	1.65	1.595	1.7	1.648333	0.05252

K+ conc. (mg/L)

Set C	PCP	Triplate Analysis		Account for 1:5 Dilution			Average	s	
6	L6	0.396	0.379	0.398	1.98	1.895	1.99	1.955	0.052202
5	L5	0.376	0.387	0.407	1.88	1.935	2.035	1.95	0.078581
4	L4	0.403	0.405	0.401	2.015	2.025	2.005	2.015	0.01
3	L3	0.384	0.375	0.395	1.92	1.875	1.975	1.923333	0.050083
2	L2	0.404	0.419	0.403	2.02	2.095	2.015	2.043333	0.044814
1	L1	0.37	0.383	0.387	1.85	1.915	1.935	1.9	0.044441

K+ conc. (mg/L)

Set D	PCP	Triplate Analysis		Account for 1:5 Dilution			Average	s	
6	L6	0.394	0.392	0.394	1.97	1.96	1.97	1.966667	0.005774
5	L5	0.347	0.378	0.364	1.735	1.89	1.82	1.815	0.077621
4	L4	0.378	0.369	0.382	1.89	1.845	1.91	1.881667	0.033292
3	L3	0.346	0.366	0.353	1.73	1.83	1.765	1.775	0.050744
2	L2	0.36	0.353	0.357	1.8	1.765	1.785	1.783333	0.017559
1	L1	0.344	0.342	0.339	1.72	1.71	1.695	1.708333	0.012583

Table J.5. PCP day 218 perturbation: normalized K+ data.

K+ conc (mg/L)		
Set A	s	
1.946667	0.020207	
1.598333	0.048045	
1.591667	0.027538	
1.891667	0.028431	
1.786667	0.036856	
1.708333	0.015275	
Set B	s	Normalized by Set A
Average	s	Kb/Ka s of quot.
1.868333	0.068981	6 0.95976 0.038352
1.873333	0.030139	5 1.172054 0.034094
1.951667	0.016073	4 1.226178 0.019161
2.031667	0.040723	3 1.074009 0.025053
1.818333	0.040723	2 1.017724 0.030448
1.648333	0.05252	1 0.964878 0.033093
Set C	s	Normalized by Set A
Average	s	Kc/Ka s of quot.
1.955	0.052202	6 1.004281 0.028648
1.95	0.078581	5 1.220021 0.050274
2.015	0.01	4 1.265969 0.017999
1.923333	0.050083	3 1.01674 0.030066
2.043333	0.044814	2 1.143657 0.030109
1.9	0.044441	1 1.112195 0.025041
Set D	s	Normalized by Set A
Average	s	Kd/Ka s of quot.
1.966667	0.005774	6 1.010274 0.010788
1.815	0.077621	5 1.135558 0.052274
1.881667	0.033292	4 1.182199 0.024746
1.775	0.050744	3 0.938326 0.032298
1.783333	0.017559	2 0.998134 0.022858
1.708333	0.012583	1 1 0.011585

Loc

- 6
- 5
- 4
- 3
- 2
- 1

Loc

- 6
- 5
- 4
- 3
- 2
- 1

Loc

- 6
- 5
- 4
- 3
- 2
- 1

Loc

- 6
- 5
- 4
- 3
- 2
- 1

Table J.6. PCP column HPC for day 218 perturbation experiment.

Location	A		B		C		D	
	cell conc (x10 ⁴)	Stdev	cell conc (x10 ⁴)	Stdev	cell conc (x10 ⁴)	Stdev	cell conc (x10 ⁴)	Stdev
1	61	3.605551	34.66667	0.57735	44.66667	2.081666	29.33333	7.234178
2	61	2.645751	74.33333	5.686241	59	3.605551	36.66667	10.21437
3	60.66667	7.767453	73.66667	4.725816	74.33333	7.767453	35.66667	11.37248
4	69	3	68.33333	2.081666	57	7.211103	53.66667	4.163332
5	61.66667	8.962886	77.33333	9.073772	70	3.605551	59.33333	11.37248
6	50.33333	4.932883	87.33333	17.95364	76.33333	3.511885	40.66667	4.50925

Table J.6a. PCP column HPC for day 218 perturbation experiment: raw data set A.

Location	Set A					
	Dilution	Count	Plate count cell conc.	cell conc	cell conc (x 10 ⁴)	stdev
6	0.001	47	470000	503333.3	50.33333	4.932883
		48	480000			
		56	560000			
5	0.001	72	720000	616666.7	61.66667	8.962886
		56	560000			
		57	570000			
4	0.001	72	720000	690000	69	3
		69	690000			
		66	660000			
3	0.001	52	520000	606666.7	60.66667	7.767453
		67	670000			
		63	630000			
2	0.001	64	640000	610000	61	2.645751
		59	590000			
		60	600000			
1	0.001	57	570000	610000	61	3.605551
		64	640000			
		62	620000			

Table J.6b. PCP column HPC for day 218 perturbation experiment: raw data set B.
Set B

Location	Dilution	Count	Plate count cell conc.	cell conc	cell conc (x 10 ⁴)	stdev
6	0.001	94	940000	873333.3	87.33333	17.95364
		67	670000			
		101	1010000			
5	0.001	81	810000	773333.3	77.33333	9.073772
		84	840000			
		67	670000			
4	0.001	69	690000	683333.3	68.33333	2.081666
		70	700000			
		66	660000			
3	0.001	70	700000	736666.7	73.66667	4.725816
		79	790000			
		72	720000			
2	0.001	76	760000	743333.3	74.33333	5.686241
		79	790000			
		68	680000			
1	0.001	34	340000	346666.7	34.66667	0.57735
		35	350000			
		35	350000			

Table J.6c. PCP column HPC for day 218 perturbation experiment: raw data set C.
Set C

Location	Dilution	Count	Plate count cell conc.	cell conc	cell conc (x 10 ⁴)	stdev
6	0.001	76	760000	763333.3	76.33333	3.511885
		73	730000			
		80	800000			
5	0.001	74	740000	700000	70	3.605551
		67	670000			
		69	690000			
4	0.001	63	630000	570000	57	7.211103
		49	490000			
		59	590000			
3	0.001	83	830000	743333.3	74.33333	7.767453
		72	720000			
		68	680000			
2	0.001	55	550000	590000	59	3.605551
		62	620000			
		60	600000			
1	0.001	47	470000	446666.7	44.66667	2.081666
		44	440000			
		43	430000			

Table J.6d. PCP column HPC for day 218 perturbation experiment: raw data set D.
Set D

Location	Dilution	Count	Plate count cell conc.	cell conc	cell conc (x 10 ⁴)	stdev
6	0.001	36	360000	406666.7	40.66667	4.50925
		45	450000			
		41	410000			
5	0.001	56	560000	593333.3	59.33333	11.37248
		72	720000			
		50	500000			
4	0.001	57	570000	536666.7	53.66667	4.163332
		49	490000			
		55	550000			
3	0.001	45	450000	356666.7	35.66667	11.37248
		39	390000			
		23	230000			
2	0.001	25	250000	366666.7	36.66667	10.21437
		44	440000			
		41	410000			
1	0.001	21	210000	293333.3	29.33333	7.234178
		34	340000			
		33	330000			

Table J.7. PCP column day 218 perturbation experiment: dK + dHPC.

K+ samples	Average	s	HPC	Standard Deviation (10 ⁴)	dK (mg/L)	K Standard Dev of difference	Set A			HPC Standard Dev of Difference
							dHPC (cell/mL)	dHPC (cell/mL)	dHPC (cell/mL) (x10 ⁴)	
L6	1.946667	0.020207	5.03E+05	4.93E+00	0.348	0.052	-113333	-11.33	10.23	
L5	1.598333	0.048045	6.17E+05	8.96E+00	0.007	0.055	-73333	-7.33	9.45	
L4	1.591667	0.027538	6.90E+05	3.00E+00	-0.300	0.040	83333	8.33	8.33	
L3	1.891667	0.028431	6.07E+05	7.77E+00	0.105	0.047	-3333	-0.33	8.21	
L2	1.786667	0.036856	6.10E+05	2.65E+00	0.078	0.040	0	0.00	4.47	
L1	1.708333	0.015275	6.10E+05	3.61E+00						
Set B										
L6	1.868333	0.068981	8.73E+05	1.80E+01	-0.005	0.075	100000	10.00	20.12	
L5	1.873333	0.030139	7.73E+05	9.07E+00	-0.078	0.034	90000	9.00	9.31	
L4	1.951667	0.016073	6.83E+05	2.08E+00	-0.080	0.044	-53333	-5.33	5.16	
L3	2.031667	0.040723	7.37E+05	4.73E+00	0.213	0.058	-6667	-0.67	7.39	
L2	1.818333	0.040723	7.43E+05	5.69E+00	0.170	0.066	396667	39.67	5.72	
L1	1.648333	0.05252	3.47E+05	5.77E-01						
Set C										
L6	1.955	0.052202	7.63E+05	3.51E+00	0.005	0.094	63333	6.33	5.03	
L5	1.95	0.078581	7.00E+05	3.61E+00	-0.065	0.079	130000	13.00	8.06	
L4	2.015	0.01	5.70E+05	7.21E+00	0.092	0.051	-173333	-17.33	10.60	
L3	1.923333	0.050083	7.43E+05	7.77E+00	-0.120	0.067	153333	15.33	8.56	
L2	2.043333	0.044814	5.90E+05	3.61E+00	0.143	0.063	143333	14.33	4.16	
L1	1.9	0.044441	4.47E+05	2.08E+00						
Set D										
L6	1.966667	0.005774	4.07E+05	4.51E+00	0.152	0.078	-186667	-18.67	12.23	
L5	1.815	0.077621	5.93E+05	1.14E+01	-0.067	0.084	56667	5.67	12.11	
L4	1.881667	0.033292	5.37E+05	4.16E+00	0.107	0.061	180000	18.00	12.11	
L3	1.775	0.050744	3.57E+05	1.14E+01	-0.008	0.054	-10000	-1.00	15.29	
L2	1.783333	0.017559	3.67E+05	1.02E+01	0.075	0.022	73333	7.33	12.52	
L1	1.708333	0.012583	2.93E+05	7.23E+00						

Table J.8. PCP concentration on day 233 PCP perturbation experiment.

Location	PCP Conc (mg/L)									
	Set A	stdev set A	Set B	stdev set B	Set C	stdev set C	Set D	stdev set D	Set E	stdev set E
1	3.587	0.030	19.275	0.251	27.764	2.052	19.386	0.174	7.195	0.021
2	3.076	0.093	12.402	1.063	25.038	1.265	13.005	1.605	4.624	0.373
3	4.841	3.088	9.714	1.158	22.241	0.735	11.368	0.559	6.064	0.070
4	3.105	0.561	12.424	0.569	26.128	2.030	10.839	0.158	6.231	0.030
5	3.505	0.120	20.178	2.325	26.397	0.238	10.939	0.460	5.987	0.242
6	3.553	0.000	21.639	2.109	25.566	1.256	11.560	0.273	6.292	0.122

Table J.8. PCP concentration on day 233 PCP perturbation experiment - raw data

Sample Name	Amount, µg/ml PCP ECD	Sample concentration 1:4 (samp:hexanes)	Average of Duplicate Injections	Average of duplicate samples	Standard deviation of duplicate samples
9_24_03_PL1_A_a_1:4dil	0.87	3.4978	3.5663	3.5874	0.0300
9_24_03_PL1_A_a	0.91	3.6347			
9_24_03_PL1_A_b	0.91	3.6398	3.6086		
9_24_03_PL1_A_b	0.89	3.5774			
9_24_03_PL2_A_a	0.77	3.0623	3.1418	3.0762	0.0928
9_24_03_PL2_A_a	0.81	3.2214			
9_24_03_PL2_A_b	0.80	3.2038	3.0106		
9_24_03_PL2_A_b	0.70	2.8174			
9_24_03_PL3_A_a	2.75	11.0062	7.0251	4.8414	3.0881
9_24_03_PL3_A_a	0.76	3.0440			
9_24_03_PL3_A_b	0.79	3.1606	2.6578		
9_24_03_PL3_A_b	0.54	2.1550			
9_24_03_PL4_A_a	0.52	2.0634	2.7083	3.1049	0.5608
9_24_03_PL4_A_a	0.84	3.3531			
9_24_03_PL4_A_b	0.85	3.4112	3.5014		
9_24_03_PL4_A_b	0.90	3.5917			
9_24_03_PL5_A_a	0.83	3.3038	3.4204	3.5054	0.1202
9_24_03_PL5_A_a	0.88	3.5371			
9_24_03_PL5_A_b	0.92	3.6955	3.5904		
9_24_03_PL5_A_b	0.87	3.4853			
9_24_03_PL6_A_a	0.87	3.4923	3.5527	3.5530	0.0004
9_24_03_PL6_A_a	0.90	3.6131			
9_24_03_PL6_A_b	0.90	3.5876	3.5532		
9_24_03_PL6_A_b	0.88	3.5189			
24_03_PCP_bottle_a_1:10	2.79	27.9016	27.1271	27.4320	0.4312
9_24_03_PCP_bottle_a	2.64	26.3526			
9_24_03_PCP_bottle_b	2.70	27.0160	27.7369		
9_24_03_PCP_bottle_b	2.85	28.4578			

Table J.8. PCP concentration on day 233 PCP perturbation experiment - raw data (cont').

Sample Name	Amount, µg/ml PCP ECD	Sample concentration 1:10 (sample:hexan es)	Average of Duplicate Injections	Average of duplicate samples	Standard deviation of duplicate samples
9_24_03_PL1_B_a_1:10dil	1.79	17.9245	19.0979	19.2753	0.2508
9_24_03_PL1_B_a	2.03	20.2714			
9_24_03_PL1_B_b	1.99	19.9250	19.4526		
9_24_03_PL1_B_b	1.90	18.9802			
9_24_03_PL2_B_a	1.32	13.2298	13.1535	12.4018	1.0631
9_24_03_PL2_B_a	1.31	13.0773			
9_24_03_PL2_B_b	1.23	12.3332	11.6501		
9_24_03_PL2_B_b	1.10	10.9670			
9_24_03_PL3_B_a	0.76	7.5817	8.8953	9.7140	1.1577
9_24_03_PL3_B_a	1.02	10.2089			
9_24_03_PL3_B_b	1.09	10.9464	10.5326		
9_24_03_PL3_B_b	1.01	10.1188			
9_24_03_PL4_B_a	1.37	13.7094	12.8265	12.4241	0.5690
9_24_03_PL4_B_a	1.19	11.9436			
9_24_03_PL4_B_b	1.15	11.5365	12.0218		
9_24_03_PL4_B_b	1.25	12.5070			
9_24_03_PL5_B_a	2.14	21.4187	21.8220	20.1779	2.3252
9_24_03_PL5_B_a	2.22	22.2254			
9_24_03_PL5_B_b	2.09	20.8686	18.5337		
9_24_03_PL5_B_b	1.62	16.1987			
9_24_03_PL6_B_a	1.61	16.0902	20.1479	21.6394	2.1093
9_24_03_PL6_B_a	2.42	24.2056			
9_24_03_PL6_B_b	2.39	23.9404	23.1309		
9_24_03_PL6_B_b	2.23	22.3214			

Table J.8. PCP concentration on day 233 PCP perturbation experiment - raw data (cont').

Sample Name	Amount, µg/ml PCP ECD	Sample concentration 1:10 (sample:hexan es)	Average of Duplicate Injections	Average of duplicate samples	Standard deviation of duplicate samples
9_24_03_PL1_C_a_1:10dil	2.93	29.2914	29.2157	27.7644	2.0525
9_24_03_PL1_C_a	2.91	29.1400			
9_24_03_PL1_C_b	2.58	25.7885	26.3131		
9_24_03_PL1_C_b	2.68	26.8377			
9_24_03_PL2_C_a	2.61	26.1408	25.9330	25.0383	1.2654
9_24_03_PL2_C_a	2.57	25.7253			
9_24_03_PL2_C_b	2.27	22.6573	24.1435		
9_24_03_PL2_C_b	2.56	25.6298			
9_24_03_PL3_C_a	2.48	24.7965	22.7612	22.2414	0.7351
9_24_03_PL3_C_a	2.07	20.7259			
9_24_03_PL3_C_b	2.31	23.1123	21.7216		
9_24_03_PL3_C_b	2.03	20.3308			
9_24_03_PL4_C_a	2.71	27.0907	27.5640	26.1283	2.0303
9_24_03_PL4_C_a	2.80	28.0372			
9_24_03_PL4_C_b	2.36	23.6354	24.6927		
9_24_03_PL4_C_b	2.58	25.7500			
9_24_03_PL5_C_a	2.57	25.7402	26.5653	26.3971	0.2380
9_24_03_PL5_C_a	2.74	27.3905			
9_24_03_PL5_C_b	2.66	26.5809	26.2288		
9_24_03_PL5_C_b	2.59	25.8767			
9_24_03_PL6_C_a	2.71	27.0709	26.4538	25.5659	1.2557
9_24_03_PL6_C_a	2.58	25.8367			
9_24_03_PL6_C_b	2.35	23.5226	24.6779		
9_24_03_PL6_C_b	2.58	25.8333			

Table J.8. PCP concentration on day 233 PCP perturbation experiment - raw data (cont).

Sample Name	Amount, µg/ml PCP ECD	Sample concentration 1:10 (sample:hexan es)	Average of Duplicate Injections	Average of duplicate samples	Standard deviation of duplicate samples
HEXANE	n.a.	#VALUE!			
9_24_03_PL1_D_a_1:10dil	1.77	17.7136	19.5086	19.3859	0.1735
9_24_03_PL1_D_a	2.13	21.3035			
9_24_03_PL1_D_b	1.78	17.8009	19.2632		
9_24_03_PL1_D_b	2.07	20.7254			
9_24_03_PL2_D_a	1.40	14.0139	14.1400	13.0053	1.6048
9_24_03_PL2_D_a	1.43	14.2662			
9_24_03_PL2_D_b	1.24	12.3794	11.8705		
9_24_03_PL2_D_b	1.14	11.3617			
9_24_03_PL3_D_a	1.15	11.4588	11.7631	11.3682	0.5585
9_24_03_PL3_D_a	1.21	12.0675			
9_24_03_PL3_D_b	1.14	11.3987	10.9733		
9_24_03_PL3_D_b	1.05	10.5479			
9_24_03_PL4_D_a	1.08	10.7925	10.9502	10.8385	0.1579
9_24_03_PL4_D_a	1.11	11.1078			
9_24_03_PL4_D_b	1.10	10.9568	10.7268		
9_24_03_PL4_D_b	1.05	10.4969			
9_24_03_PL5_D_a	1.11	11.0511	10.6134	10.9389	0.4603
9_24_03_PL5_D_a	1.02	10.1757			
9_24_03_PL5_D_b	1.04	10.3933	11.2644		
9_24_03_PL5_D_b	1.21	12.1355			
9_24_03_PL6_D_a	1.21	12.0917	11.7526	11.5599	0.2725
9_24_03_PL6_D_a	1.14	11.4135			
9_24_03_PL6_D_b	1.15	11.4518	11.3672		
9_24_03_PL6_D_b	1.13	11.2826			

Table J.8. PCP concentration on day 233 PCP perturbation experiment - raw data (cont').

Sample Name	Amount µg/ml PCP ECD	Sample concentration 1:10 (sample:hexanes)	Average of Duplicate Injections	Average of duplicate samples	Standard deviation of duplicate samples
9_24_03_PL1_E_a_1:4dil	1.77	7.0885	7.2099	7.1951	0.0209
9_24_03_PL1_E_a_1:4dil	1.83	7.3313			
9_24_03_PL1_E_b	1.77	7.0721	7.1804		
9_24_03_PL1_E_b	1.82	7.2887			
9_24_03_PL2_E_a	1.18	4.7082	4.3610	4.6244	0.3725
9_24_03_PL2_E_a	1.00	4.0138			
9_24_03_PL2_E_b	1.07	4.2788	4.8878		
9_24_03_PL2_E_b	1.37	5.4968			
9_24_03_PL3_E_a	1.56	6.2438	6.1133	6.0640	0.0696
9_24_03_PL3_E_a	1.50	5.9827			
9_24_03_PL3_E_b	1.46	5.8512	6.0148		
9_24_03_PL3_E_b	1.54	6.1785			
9_24_03_PL4_E_a	1.56	6.2510	6.2522	6.2309	0.0301
9_24_03_PL4_E_a	1.56	6.2533			
9_24_03_PL4_E_b	1.54	6.1696	6.2096		
9_24_03_PL4_E_b	1.56	6.2495			
9_24_03_PL5_E_a	1.54	6.1781	6.1573	5.9865	0.2416
9_24_03_PL5_E_a	1.53	6.1366			
9_24_03_PL5_E_b	1.44	5.7746	5.8157		
9_24_03_PL5_E_b	1.46	5.8569			
9_24_03_PL6_E_a	1.54	6.1675	6.2054	6.2918	0.1222
9_24_03_PL6_E_a	1.56	6.2433			
9_24_03_PL6_E_b	1.58	6.3341	6.3782		
9_24_03_PL6_E_b	1.6056	6.4223			