

# Supplementary Materials: Long-Term Comparison of Disinfection By-Product Formation Potential in a Full Scale Treatment Plant Utilizing a Multi-Coagulant Drinking Water Treatment Scheme

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Table S1. Raw Water Data.

| Date       | Sample Analysis Date | TOC (mg/L) | pH   | UV254 | Cl <sub>2</sub> Residual | SUVA 254 |
|------------|----------------------|------------|------|-------|--------------------------|----------|
| 13/11/2009 |                      | 5.47       |      | 0.088 |                          | 1.61     |
| 16/11/2009 |                      | 6.18       |      | 0.098 |                          | 1.58     |
| 18/11/2009 |                      | 5.72       |      | 0.109 |                          | 1.91     |
| 20/11/2009 |                      | 5.85       |      | 0.119 |                          | 2.03     |
| 23/11/2009 |                      | 5.57       |      | 0.114 |                          | 2.05     |
| 25/11/2009 |                      | 5.13       |      | 0.095 |                          | 1.85     |
| 30/11/2009 |                      | 5.75       |      | 0.114 |                          | 1.98     |
| 12/2/2009  |                      | 6.17       | 7.69 | 0.143 |                          | 2.32     |
| 4/12/2009  |                      | 5.71       | 7.75 | 0.125 |                          | 2.19     |
| 7/12/2009  |                      | 5.05       | 7.65 | 0.115 |                          | 2.28     |
| 9/12/2009  |                      | 5.28       | 7.7  | 0.128 |                          | 2.43     |
| 11/12/2009 |                      | 5.34       | 7.8  | 0.132 |                          | 2.47     |
| 14/12/2009 |                      | 5.74       | 7.79 | 0.155 |                          | 2.70     |
| 16/12/2009 |                      | 5.80       | 7.71 | 0.150 |                          | 2.59     |
| 18/12/2009 |                      | 6.21       | 7.72 | 0.157 |                          | 2.53     |
| 21/12/2009 |                      |            |      |       |                          | #DIV/0!  |
| 23/12/2009 |                      | 6.26       | 7.45 | 0.157 |                          | 2.51     |
| 25/12/2009 |                      |            |      |       |                          | #DIV/0!  |
| 28/12/2009 |                      | 5.69       | 7.53 | 0.159 |                          | 2.80     |
| 30/12/2009 |                      | 5.98       | 7.53 | 0.151 |                          | 2.52     |
| 6/1/2010   |                      | 5.91       | 7.81 | 0.137 |                          | 2.32     |
| 8/1/2010   |                      | 6.57       | 7.7  | 0.152 |                          | 2.31     |
| 11/1/2010  |                      | 6.07       | 7.54 | 0.150 |                          | 2.47     |
| 13/1/2010  |                      | 6.15       | 7.47 | 0.127 |                          | 2.06     |
| 16/1/2010  |                      | 5.44       | 7.46 | 0.125 |                          | 2.30     |
| 20/1/2010  |                      | 6.06       | 7.44 | 0.122 |                          | 2.01     |
| 22/1/2010  |                      | 5.55       | 7.38 | 0.109 |                          | 1.97     |
| 25/1/2010  |                      | 5.49       | 7.81 | 0.111 |                          | 2.02     |
| 27/1/2010  |                      | 6.70       | 7.79 | 0.127 |                          | 1.90     |
| 29/1/2010  |                      | 5.61       | 7.74 | 0.157 |                          | 2.80     |
| 1/2/2010   |                      | 6.00       | 7.36 | 0.149 |                          | 2.48     |
| 4/2/2010   |                      | 6.65       | 7.44 | 0.123 |                          | 1.85     |
| 5/2/2010   |                      | 6.27       | 7.37 | 0.142 |                          | 2.26     |
| 8/2/2010   |                      | 5.09       | 7.48 | 0.125 |                          | 2.45     |
| 10/2/2010  |                      | 4.87       | 7.53 | 0.127 |                          | 2.61     |
| 15/2/2010  |                      | 4.82       | 7.56 | 0.109 |                          | 2.26     |
| 17/2/2010  |                      | 4.73       | 7.56 | 0.105 |                          | 2.22     |
| 19/2/2010  |                      | 4.55       | 7.64 | 0.104 |                          | 2.29     |
| 22/2/2010  |                      | 4.33       | 8    | 0.098 |                          | 2.26     |
| 24/2/2010  |                      | 4.39       | 7.84 | 0.096 |                          | 2.19     |
| 26/2/2010  |                      | 4.66       | 7.78 | 0.089 |                          | 1.91     |
| 1/3/2010   |                      | 5.17       | 7.91 | 0.095 |                          | 1.84     |
| 3/3/2010   |                      | 4.40       | 7.77 | 0.092 |                          | 2.09     |
| 8/3/2010   |                      | 4.51       | 7.69 | 0.088 |                          | 1.95     |
| 10/3/2010  |                      | 4.23       | 7.71 | 0.085 |                          | 2.01     |

|            |            |      |      |       |      |         |
|------------|------------|------|------|-------|------|---------|
| 15/3/2010  |            | 4.35 | 7.48 | 0.117 |      | 2.69    |
| 17/3/2010  |            | 4.09 | 7.74 | 0.157 |      | 3.84    |
| 19/3/2010  |            | 4.13 | 7.74 | 0.142 |      | 3.44    |
| 23/3/2010  |            | 4.68 | 7.66 | 0.145 |      | 3.10    |
| 24/3/2010  |            | 4.68 | 7.81 | 0.127 |      | 2.71    |
| 26/3/2010  |            | 4.27 | 7.79 | 0.134 |      | 3.14    |
| 31/3/2010  |            | 5.15 | 8.01 | 0.138 |      | 2.68    |
| 7/4/2010   |            | 5.22 | 8.16 | 0.140 |      | 2.68    |
| 14/4/2010  |            | 6.01 | 8.28 | 0.127 |      | 2.11    |
| 21/4/2010  |            | 4.45 | 8.19 | 0.120 |      | 2.70    |
| 28/4/2010  |            | 4.29 | 8.22 | 0.116 |      | 2.70    |
| 5/5/2010   |            | 5.44 | 8.27 | NA    |      | #VALUE! |
| 19/5/2010  |            | 5.08 | NA   | 0.155 |      | 3.05    |
| 26/5/2010  |            | 5.11 | 7.72 | 0.200 |      | 3.92    |
| 2/6/2010   |            | 4.29 | 7.97 | 0.197 |      | 4.59    |
| 9/6/2010   |            | 4.58 | 7.68 | 0.215 |      | 4.69    |
| 17/6/2010  |            | 6.03 | 7.88 | 0.217 |      | 3.60    |
| 30/6/2010  |            | 4.90 | 7.92 | 0.161 |      | 3.28    |
| 7/7/2010   | 15/7/2010  | 6.47 | 8.39 | 0.177 |      | 2.74    |
| 14/7/2010  | 20/7/2010  | 5.26 | 7.97 | 0.161 |      | 3.06    |
| 21/7/2010  | 28/7/2010  | 4.30 | 8.27 | 0.132 |      | 3.07    |
| 28/7/2010  | 5/8/2010   | 4.40 | 8    | 0.199 |      | 4.52    |
| 4/8/2010   | 9/8/2010   | 4.51 | 8.21 | 0.146 |      | 3.24    |
| 11/8/2010  | 20/8/2010  | 5.07 | 7.45 | 0.129 |      | 2.54    |
| 18/8/2010  | 24/8/2010  | 4.92 | 7.74 | 0.140 |      | 2.85    |
| 25/8/2010  | 31/8/2010  | 4.90 | 7.4  | 0.123 |      | 2.51    |
| 1/9/2010   | 10/9/2010  | 5.15 | 7.9  | 0.139 |      | 2.70    |
| 8/9/2010   | 14/9/2010  | 5.07 | 7.84 | 0.124 |      | 2.45    |
| 13/9/2010  | 21/9/2010  | 4.48 | 7.94 | 0.117 |      | 2.61    |
| 15/9/2010  | 21/9/2010  | 4.72 | 7.83 | 0.123 |      | 2.61    |
| 17/9/2010  | 21/9/2010  | 4.85 | 8.01 | 0.121 |      | 2.50    |
| 20/9/2010  | 29/9/2010  | 4.23 | 7.79 | 0.119 |      | 2.81    |
| 22/9/2010  | 29/9/2010  | 4.62 | 8.12 | 0.106 | 3.31 | 2.29    |
| 24/9/2010  | 29/9/2010  | 4.32 | 8.13 | 0.110 |      | 2.55    |
| 27/9/2010  | 8/10/2010  | 3.93 | 7.93 | 0.097 |      | 2.47    |
| 29/9/2010  | 8/10/2010  | 4.57 | 8.09 | 0.103 | 2.60 | 2.25    |
| 1/10/2010  | 8/10/2010  | 4.46 | 8.03 | 0.101 |      | 2.26    |
| 4/10/2010  | 12/10/2010 | 4.23 | 7.57 | 0.121 |      | 2.86    |
| 6/10/2010  | 12/10/2010 | 4.65 | 7.86 | 0.105 | 1.66 | 2.26    |
| 8/10/2010  | 12/10/2010 | 4.39 | 8.11 | 0.111 |      | 2.53    |
| 11/10/2010 | 22/10/2010 | 4.44 | 7.95 | 0.100 |      | 2.25    |
| 13/10/2010 | 22/10/2010 | 4.81 | 8.25 | 0.114 | 2.63 | 2.37    |
| 15/10/2010 | 22/10/2010 | 4.70 | 8.04 | 0.115 |      | 2.45    |
| 18/10/2010 | 26/10/2010 | 4.60 | 7.87 | 0.111 |      | 2.41    |
| 20/10/2010 | 26/10/2010 | 4.75 | 7.94 | 0.112 | 2.09 | 2.36    |
| 22/10/2010 | 26/10/2010 | 4.93 | 7.97 | 0.118 |      | 2.39    |
| 25/10/2010 | 5/11/2010  | 5.10 | 7.82 | 0.111 |      | 2.18    |
| 27/10/2010 | 5/11/2010  | 5.17 | 8.01 | 0.119 | 1.58 | 2.30    |
| 29/10/2010 | 5/11/2010  | 5.04 | 7.89 | 0.115 |      | 2.28    |
| 1/11/2010  | 9/11/2010  | 4.67 | 7.96 | 0.109 |      | 2.33    |
| 3/11/2010  | 9/11/2010  | 4.93 | 8.03 | 0.107 | 2.94 | 2.17    |
| 5/11/2010  | 9/11/2010  | 5.01 | 8.03 | 0.111 |      | 2.22    |
| 8/11/2010  | 19/11/2010 | 4.78 | 8    | 0.113 |      | 2.36    |
| 10/11/2010 | 19/11/2010 | 4.78 | 8.17 | 0.117 | 3.24 | 2.45    |
| 12/11/2010 | 19/11/2010 | 4.65 | 8.08 | 0.117 |      | 2.52    |
| 15/11/2010 | 24/11/2010 | 5.13 | 7.85 | 0.118 |      | 2.30    |
| 17/11/2010 | 24/11/2010 | 4.88 | 8    | 0.114 | 1.61 | 2.34    |
| 19/11/2010 | 24/11/2010 | 4.93 | 8    | 0.118 |      | 2.39    |

|            |            |      |      |       |      |      |
|------------|------------|------|------|-------|------|------|
| 22/11/2010 | 3/12/2010  | 4.86 | 8.1  | 0.109 |      | 2.24 |
| 23/11/2010 | 3/12/2010  | 4.97 | 8.11 | 0.119 |      | 2.40 |
| 24/11/2010 | 3/12/2010  | 5.07 | 8.08 | 0.126 | 1.35 | 2.48 |
| 29/11/2010 | 14/12/2010 | 5.76 | 7.7  | 0.173 |      | 3.01 |
| 1/12/2010  | 14/12/2010 | 5.78 | 7.91 | 0.176 | 1.34 | 3.04 |
| 3/12/2010  | 14/12/2010 | 6.40 | 7.85 | 0.183 |      | 2.86 |
| 6/12/2010  | 15/12/2010 | 5.41 | 7.38 | 0.187 |      | 3.46 |
| 8/12/2010  | 15/12/2010 | 9.81 | 7.29 | 0.266 | 0.21 | 2.71 |
| 10/12/2010 | 15/12/2010 | 7.17 | 7.39 | 0.234 |      | 3.27 |
| 13/12/2010 | 21/12/2010 | 4.98 | 7.55 | 0.187 |      | 3.75 |
| 15/12/2010 | 21/12/2010 | 4.82 | 7.79 | 0.157 | 2.07 | 3.25 |
| 17/12/2010 | 21/12/2010 | 4.71 | 7.78 | 0.178 |      | 3.78 |
| 21/12/2010 | 5/1/2011   | 4.48 | 7.79 | 0.122 |      | 2.72 |
| 22/12/2010 | 5/1/2011   | 5.02 | 7.62 | 0.169 | 1.94 | 3.36 |
| 24/12/2010 | 5/1/2011   | 4.92 | 7.81 | 0.153 |      | 3.11 |
| 27/12/2010 | 11/1/2011  | 4.76 | 7.66 | 0.166 |      | 3.49 |
| 29/12/2010 | 11/1/2011  | 4.65 | 7.87 | 0.161 | 1.89 | 3.47 |
| 31/12/2010 | 11/1/2011  | 4.93 | 7.9  | 0.148 |      | 3.00 |
| 5/1/2011   | 13/1/2011  | 4.71 | 7.08 | 0.175 | 1.37 | 3.72 |
| 7/1/2011   | 13/1/2011  | 5.33 | 7.04 | 0.176 |      | 3.30 |
| 10/1/2011  | 18/1/2011  | 5.07 | 7.21 | 0.167 |      | 3.30 |
| 12/1/2011  | 19/1/2011  | 4.90 | 7.36 | 0.170 | 0.89 | 3.47 |
| 14/1/2011  | 19/1/2011  | 4.73 | 7.15 | 0.160 |      | 3.38 |
| 17/1/2011  | 27/1/2011  | 4.15 | 7.03 | 0.153 |      | 3.69 |
| 19/1/2011  | 27/1/2011  | 4.39 | 7.06 | 0.147 | 1.89 | 3.35 |
| 21/1/2011  | 27/1/2011  | 5.24 | 6.94 | 0.142 |      | 2.71 |
| 24/1/2011  | 8/2/2011   | 3.99 | 7.07 | 0.122 |      | 3.06 |
| 26/1/2011  | 8/2/2011   | 4.27 | 7.11 | 0.129 | 2.87 | 3.02 |
| 28/1/2011  | 8/2/2011   | 4.04 | 7.01 | 0.125 |      | 3.09 |
| 31/1/2011  | 11/2/2011  | 4.25 | 7.25 | 0.118 |      | 2.77 |
| 2/2/2011   | 11/2/2011  | 4.20 | 7.52 | 0.127 | 2.81 | 3.02 |
| 4/2/2011   | 11/2/2011  | 4.24 | 7.39 | 0.111 |      | 2.62 |
| 7/2/2011   | 17/2/2011  | 3.70 | 7.13 | 0.112 |      | 3.02 |
| 9/2/2011   | 17/2/2011  | 3.99 | 7.55 | 0.112 | 2.95 | 2.81 |
| 11/2/2011  | 17/2/2011  | 3.60 | 7.42 | 0.107 |      | 2.97 |
| 14/2/2011  | 9/3/2011   | 3.23 | 7.58 | 0.105 |      | 3.25 |
| 16/2/2011  | 9/3/2011   | 3.52 | 7.37 | 0.106 | 3.31 | 3.01 |
| 18/2/2011  | 9/3/2011   | 4.25 | 7.12 | 0.107 |      | 2.52 |
| 21/2/2011  | 11/3/2011  | 3.65 | 6.62 | 0.133 |      | 3.64 |
| 23/2/2011  | 11/3/2011  | 5.22 | 7.26 | 0.129 | 2.27 | 2.47 |
| 25/2/2011  | 11/3/2011  | 4.06 | 7.21 | 0.123 |      | 3.03 |
| 28/2/2011  | 15/3/2011  | 3.66 | 6.76 | 0.115 |      | 3.14 |
| 2/3/2011   | 15/3/2011  | 3.64 | 7.12 | 0.130 | 1.68 | 3.57 |
| 4/3/2011   | 15/3/2011  | 3.52 | 7.08 | 0.113 |      | 3.21 |
| 7/3/2011   | 16/3/2011  | 4.00 | 6.91 | 0.142 |      | 3.55 |
| 9/3/2011   | 16/3/2011  | 3.84 | 6.64 | 0.143 | 1.67 | 3.72 |
| 11/3/2011  | 16/3/2011  | 3.86 | 6.89 | 0.150 |      | 3.89 |
| 15/3/2011  | 25/3/2011  | 3.99 | 6.61 | 0.143 |      | 3.58 |
| 16/3/2011  | 25/3/2011  | 4.16 | 6.75 | 0.144 | 2.14 | 3.46 |
| 18/3/2011  | 25/3/2011  | 3.68 | 6.85 | 0.128 |      | 3.48 |
| 21/3/2011  | 31/3/2011  | 3.23 | 6.82 | 0.135 |      | 4.18 |
| 23/3/2011  | 31/3/2011  | 3.29 | 7.2  | 0.136 | 2.63 | 4.13 |
| 25/3/2011  | 31/3/2011  | 3.22 | 7.24 | 0.130 |      | 4.04 |
| 28/3/2011  | 8/4/2011   | 3.55 | 6.88 | 0.132 |      | 3.72 |
| 30/3/2011  | 8/4/2011   | 3.48 | 7.3  | 0.137 | 2.90 | 3.94 |
| 1/4/2011   | 8/4/2011   | 3.54 | 7.35 | 0.124 |      | 3.50 |
| 4/4/2011   | 15/4/2011  | 3.21 | 7    | 0.122 |      | 3.80 |
| 6/4/2011   | 15/4/2011  | 3.29 | 7.31 | 0.125 | 2.69 | 3.80 |

|           |           |      |      |       |      |         |
|-----------|-----------|------|------|-------|------|---------|
| 8/4/2011  | 15/4/2011 | 4.18 | 7.31 | 0.162 |      | 3.88    |
| 11/4/2011 | 25/4/2011 | 4.06 | 6.75 | 0.165 |      | 4.06    |
| 14/4/2011 | 25/4/2011 | 4.28 | 7.06 | 0.173 | 1.43 | 4.04    |
| 15/4/2011 | 25/4/2011 | 4.08 | 7.21 | 0.164 |      | 4.02    |
| 18/4/2011 | 3/5/2011  | 4.62 | 6.81 | 0.154 |      | 3.33    |
| 20/4/2011 | 3/5/2011  | 4.26 | 7.23 | 0.168 | 1.65 | 3.94    |
| 22/4/2011 | 3/5/2011  | 4.75 | 7.32 | 0.176 |      | 3.71    |
| 25/4/2011 | 10/5/2011 | 4.59 | 6.55 | 0.187 |      | 4.07    |
| 27/4/2011 | 10/5/2011 | 5.01 | 6.8  | 0.201 | 0.60 | 4.01    |
| 29/4/2011 | 10/5/2011 | 4.70 | 7.01 | 0.191 |      | 4.06    |
| 2/5/2011  | 12/5/2011 | 4.54 | 7.23 | 0.173 |      | 3.81    |
| 4/5/2011  | 12/5/2011 | 4.67 | 7.24 | 0.187 | 0.66 | 4.00    |
| 6/5/2011  | 12/5/2011 | 4.44 | 7.35 | 0.183 |      | 4.12    |
| 9/5/2011  | 19/5/2011 | 4.95 | 7.4  | 0.169 |      | 3.41    |
| 11/5/2011 | 19/5/2011 | 4.51 | 7.51 | 0.172 | 0.55 | 3.81    |
| 13/5/2011 | 19/5/2011 | 4.69 | 7.56 | 0.171 |      | 3.65    |
| 16/5/2011 | 3/6/2011  | 4.60 | 7.62 | 0.181 |      | 3.93    |
| 18/5/2011 | 3/6/2011  | 6.42 | 7.64 | 0.233 | 0.15 | 3.63    |
| 20/5/2011 | 3/6/2011  | 6.65 | 7.62 | 0.245 |      | 3.68    |
| 23/5/2011 | 9/6/2011  | 5.42 | 6.97 | 0.222 |      | 4.10    |
| 25/5/2011 | 9/6/2011  | 5.67 | 7.34 | 0.222 | 0.21 | 3.92    |
| 27/5/2011 | 9/6/2011  | 5.62 | 7.53 | 0.227 |      | 4.04    |
| 1/6/2011  | NA        |      |      |       |      | #DIV/0! |
| 3/6/2011  | 10/6/2011 | 6.04 | 7.87 | 0.216 |      | 3.58    |
| 8/6/2011  | 17/6/2011 | 6.18 | 7.69 | 0.235 | 0.22 | 3.80    |
| 10/6/2011 | 17/6/2011 | 6.85 | 8.06 | 0.223 |      | 3.26    |
| 15/6/2011 | 21/6/2011 | 6.22 | 7.81 | 0.210 | 0.67 | 3.38    |
| 17/6/2011 | 21/6/2011 | 6.22 | 7.75 | 0.200 |      | 3.22    |
| 20/6/2011 | 30/6/2011 | 5.74 | 7.58 | 0.188 |      | 3.28    |
| 22/6/2011 | 30/6/2011 | 5.71 | 7.46 | 0.212 | 0.49 | 3.71    |
| 24/6/2011 | 30/6/2011 | 6.15 | 7.76 | 0.203 |      | 3.30    |
| 30/6/2011 | 12/7/2011 | 5.06 | 7.87 | 0.191 | 0.61 | 3.77    |
| 1/7/2011  | 12/7/2011 | 5.36 | 7.83 | 0.189 |      | 3.53    |
| 6/7/2011  | 14/7/2011 | 5.66 | 7.86 | 0.200 | 0.20 | 3.53    |
| 9/7/2011  | 14/7/2011 | 5.43 | 7.95 | 0.189 |      | 3.48    |
| 11/7/2011 | 20/7/2011 | 5.04 | 7.74 | 0.217 |      | 4.31    |
| 13/7/2011 | 20/7/2011 | 6.81 | 7.76 | 0.228 | 0.42 | 3.35    |
| 15/7/2011 | 20/7/2011 | 5.04 | 8.19 | 0.174 |      | 3.45    |
| 18/7/2011 | 25/7/2011 | 5.10 | 7.76 | 0.154 |      | 3.02    |
| 20/7/2011 | 25/7/2011 | 4.85 | 7.81 | 0.167 | 1.65 | 3.44    |
| 25/7/2011 | 17/8/2011 | 4.99 | 7.4  | 0.151 |      | 3.03    |
| 27/7/2011 | 17/8/2011 | 5.92 | 7.85 | 0.170 | 0.39 | 2.87    |
| 3/8/2011  | 17/8/2011 | 5.41 | 7.77 | 0.162 | 1.07 | 2.99    |
| 8/8/2011  | 6/9/2011  | 5.45 | 7.98 | 0.165 |      | 3.03    |
| 10/8/2011 | 17/8/2011 | 5.35 | 8.04 | 0.158 | 1.06 | 2.95    |
| 17/8/2011 | 25/8/2011 | 4.87 | 7.96 | 0.146 |      | 3.00    |
| 20/8/2011 | 25/8/2011 | 4.70 | 7.96 | 0.153 |      | 3.26    |
| 22/8/2011 | 25/8/2011 | 4.80 | 7.84 | 0.166 | 1.71 | 3.46    |
| 24/8/2011 | 31/8/2011 | 5.34 | 7.77 | 0.152 |      | 2.85    |
| 26/8/2011 | 31/8/2011 | 4.80 | 8.16 | 0.157 |      | 3.27    |
| 29/8/2011 | 31/8/2011 | 5.12 | 8.13 | 0.157 | 2.30 | 3.07    |
| 31/8/2011 | 6/9/2011  | 5.76 | 7.86 | 0.151 |      | 2.62    |
| 2/9/2011  | 6/9/2011  | 5.42 | 7.83 | 0.147 |      | 2.71    |
| 5/9/2011  | 6/9/2011  | 5.39 | 8.03 | 0.151 | 1.79 | 2.80    |
| 8/9/2011  | 13/9/2011 | 5.75 | 7.5  | 0.148 |      | 2.57    |
| 9/9/2011  | 13/9/2011 | 5.58 | 7.83 | 0.161 |      | 2.89    |
| 12/9/2011 | 13/9/2011 | 6.81 | 7.66 | 0.220 | 0.23 | 3.23    |
| 14/9/2011 | 21/9/2011 | 6.57 | 7.53 | 0.194 |      | 2.95    |

|            |            |      |      |       |      |      |
|------------|------------|------|------|-------|------|------|
| 16/9/2011  | 21/9/2011  | 7.34 | 7.84 | 0.190 |      | 2.59 |
| 19/9/2011  | 21/9/2011  | 7.46 | 8.06 | 0.219 | 0.51 | 2.94 |
| 21/9/2011  | 27/9/2011  | 7.62 | 7.89 | 0.224 |      | 2.94 |
| 23/9/2011  | 27/9/2011  | 7.85 | 7.59 | 0.215 |      | 2.74 |
| 26/9/2011  | 27/9/2011  | 7.68 | 8.08 | 0.225 | 0.38 | 2.93 |
| 28/9/2011  | 4/10/2011  | 7.23 | 7.59 | 0.209 |      | 2.89 |
| 30/9/2011  | 4/10/2011  | 7.01 | 7.61 | 0.209 |      | 2.98 |
| 3/10/2011  | 4/10/2011  | 7.83 | 7.69 | 0.241 | 0.11 | 3.08 |
| 5/10/2011  | 24/10/2011 | 7.64 | 7.87 | 0.236 |      | 3.09 |
| 7/10/2011  | 24/10/2011 | 7.35 | 7.62 | 0.231 |      | 3.14 |
| 10/10/2011 | 24/10/2011 | 7.44 | 7.67 | 0.235 | 0.17 | 3.16 |
| 12/10/2011 | 25/10/2011 | 7.83 | 8.01 | 0.215 |      | 2.75 |
| 14/10/2011 | 25/10/2011 | 7.82 | 7.61 | 0.210 |      | 2.69 |
| 17/10/2011 | 25/10/2011 | 8.07 | 7.76 | 0.216 | 0.11 | 2.68 |
| 19/10/2011 | 27/10/2011 | 7.00 | 7.67 | 0.207 |      | 2.96 |
| 21/10/2011 | 27/10/2011 | 7.22 | 7.67 | 0.213 |      | 2.95 |
| 24/10/2011 | 27/10/2011 | 8.47 | 7.65 | 0.253 | 0.15 | 2.99 |
| 26/10/2011 | 1/11/2011  | 7.44 | 7.39 | 0.240 |      | 3.23 |
| 28/10/2011 | 1/11/2011  | 7.25 | 7.36 | 0.242 |      | 3.34 |
| 31/10/2011 | 1/11/2011  | 8.04 | 7.52 | 0.241 | 0.32 | 3.00 |
| 2/11/2011  | 11/11/2011 | 7.28 | 7.35 | 0.216 |      | 2.97 |
| 4/11/2011  | 11/11/2011 | 7.16 | 7.48 | 0.222 |      | 3.10 |
| 7/11/2011  | 11/11/2011 | 7.30 | 7.68 | 0.218 | 0.50 | 2.99 |
| 14/11/2011 | 23/11/2011 | 6.08 | 7.62 | 0.188 | 0.79 | 3.09 |
| 21/11/2011 | 23/11/2011 | 6.49 | 7.58 | 0.218 | 0.35 | 3.36 |
| 23/11/2011 | 30/11/2011 | 5.66 | 7.42 | 0.169 |      | 2.99 |
| 25/11/2011 | 30/11/2011 | 5.88 | 7.57 | 0.187 |      | 3.18 |
| 28/11/2011 | 30/11/2011 | 6.02 | 7.65 | 0.206 | 0.43 | 3.42 |
| 30/11/2011 | 8/12/2011  | 6.36 | 7.54 | 0.193 |      | 3.03 |
| 2/12/2011  | 8/12/2011  | 6.26 | 7.65 | 0.188 |      | 3.00 |
| 5/12/2011  | 8/12/2011  | 6.99 | 7.5  | 0.203 | 0.99 | 2.90 |
| 7/12/2011  | 15/12/2011 | 6.07 | 7.42 | 0.190 |      | 3.13 |
| 9/12/2011  | 15/12/2011 | 6.07 | 7.4  | 0.201 |      | 3.31 |
| 12/12/2011 | 15/12/2011 | 5.85 | 7.55 | 0.184 | 1.16 | 3.15 |
| 14/12/2011 | 22/12/2011 | 5.04 | 7.51 | 0.166 |      | 3.29 |
| 16/12/2011 | 22/12/2011 | 4.97 | 7.53 | 0.169 |      | 3.40 |
| 19/12/2011 | 22/12/2011 | 4.82 | 7.67 | 0.159 | 1.59 | 3.30 |
| 26/12/2011 | 11/1/2012  | 4.47 | 7.24 | 0.160 | 1.52 | 3.58 |
| 2/1/2012   | 11/1/2012  | 4.40 | 7.39 | 0.154 | 1.36 | 3.50 |
| 11/1/2012  | 18/1/2012  | 4.19 | 7.64 | 0.125 |      | 2.98 |
| 13/1/2012  | 18/1/2012  | 3.85 | 7.71 | 0.133 |      | 3.45 |
| 18/1/2012  | 25/1/2012  | 4.14 | 7.59 | 0.121 |      | 2.92 |
| 20/1/2012  | 25/1/2012  | 3.90 | 7.6  | 0.131 |      | 3.36 |
| 24/1/2012  | 25/1/2012  | 3.88 | 7.62 | 0.130 |      | 3.35 |
| 25/1/2012  | 1/2/2012   | 3.87 | 7.53 | 0.125 |      | 3.23 |
| 27/1/2012  | 1/2/2012   | 3.71 | 7.5  | 0.120 |      | 3.23 |
| 30/1/2012  | 1/2/2012   | 3.70 | 7.59 | 0.123 | 3.81 | 3.32 |
| 1/2/2012   | 8/2/2012   | 4.51 | 7.24 | 0.126 |      | 2.79 |
| 3/2/2012   | 8/2/2012   | 3.86 | 7.41 | 0.123 |      | 3.19 |
| 6/2/2012   | 8/2/2012   | 4.15 | 7.55 | 0.107 |      | 2.58 |
| 8/2/2012   | 15/2/2012  | 4.49 | 7.5  | 0.116 |      | 2.58 |
| 10/2/2012  | 15/2/2012  | 3.98 | 7.58 | 0.119 |      | 2.99 |
| 13/2/2012  | 15/2/2012  | 3.45 | 7.82 | 0.112 |      | 3.25 |
| 15/2/2012  | 23/2/2012  | 3.08 | 7.73 | 0.099 |      | 3.21 |
| 17/2/2012  | 23/2/2012  | 3.16 | 7.68 | 0.108 |      | 3.42 |
| 20/2/2012  | 23/2/2012  | 3.14 | 7.8  | 0.103 | 4.29 | 3.28 |
| 22/2/2012  | 29/2/2012  | 3.56 | 7.71 | 0.106 |      | 2.98 |
| 24/2/2012  | 29/2/2012  | 3.25 | 7.84 | 0.109 |      | 3.35 |

|           |           |      |      |       |      |      |
|-----------|-----------|------|------|-------|------|------|
| 27/2/2012 | 29/2/2012 | 3.56 | 7.94 | 0.100 |      | 2.81 |
| 29/2/2012 | 7/3/2012  | 3.58 | 7.7  | 0.103 |      | 2.88 |
| 5/3/2012  | 7/3/2012  | 4.31 | 7.84 | 0.120 | 3.12 | 2.78 |
| 7/3/2012  | 14/3/2012 | 3.69 | 7.47 | 0.120 |      | 3.25 |
| 9/3/2012  | 14/3/2012 | 3.78 | 7.45 | 0.117 |      | 3.10 |
| 12/3/2012 | 14/3/2012 | 3.64 | 7.46 | 0.115 |      | 3.16 |
| 14/3/2012 | 22/3/2012 | 3.91 | 7.55 | 0.114 |      | 2.92 |
| 16/3/2012 | 22/3/2012 | 3.99 | 7.67 | 0.117 |      | 2.93 |
| 19/3/2012 | 22/3/2012 | 4.45 | 7.87 | 0.131 | 2.39 | 2.94 |
| 21/3/2012 | 28/3/2012 | 4.52 | 7.48 | 0.193 |      | 4.27 |
| 23/3/2012 | 28/3/2012 | 4.99 | 7.48 | 0.163 |      | 3.27 |
| 26/3/2012 | 28/3/2012 | 4.87 | 7.58 | 0.169 |      | 3.47 |
| 28/3/2012 | 4/4/2012  | 5.81 | 7.56 | 0.168 |      | 2.89 |
| 30/3/2012 | 4/4/2012  | 5.96 | 7.68 | 0.173 |      | 2.90 |
| 2/4/2012  | 4/4/2012  | 6.18 | 7.76 | 0.176 | 0.76 | 2.85 |
| 4/4/2012  | 15/4/2012 | 5.41 | 7.85 | 0.150 |      | 2.77 |
| 6/4/2012  | 15/4/2012 | 5.43 | 7.88 | 0.153 |      | 2.82 |
| 9/4/2012  | 15/4/2012 | 5.31 | 7.88 | 0.155 |      | 2.92 |
| 11/4/2012 | 18/4/2012 | 4.81 | 7.56 | 0.132 |      | 2.74 |
| 13/4/2012 | 18/4/2012 | 5.02 | 7.62 | 0.132 |      | 2.63 |
| 16/4/2012 | 18/4/2012 | 4.89 | 7.93 | 0.125 | 2.20 | 2.56 |
| 18/4/2012 | 26/4/2012 | 4.76 | 7.63 | 0.118 |      | 2.48 |
| 20/4/2012 | 26/4/2012 | 4.52 | 7.84 | 0.127 |      | 2.81 |
| 23/4/2012 | 26/4/2012 | 4.58 | 7.95 | 0.121 |      | 2.64 |
| 25/4/2012 | 3/5/2012  | 4.17 | 7.81 | 0.120 |      | 2.88 |
| 30/4/2012 | 3/5/2012  | 4.83 | 8.05 | 0.128 | 2.75 | 2.65 |
| 2/5/2012  | 3/5/2012  | 4.68 | 7.74 | 0.120 |      | 2.56 |
| 4/5/2012  | 9/5/2012  | 4.54 | 7.93 | 0.127 |      | 2.80 |
| 7/5/2012  | 9/5/2012  | 5.22 | 7.89 | 0.124 |      | 2.38 |
| 10/5/2012 | 16/5/2012 | 5.26 | 7.88 | 0.126 |      | 2.40 |
| 11/5/2012 | 16/5/2012 | 5.61 | 7.68 | 0.122 |      | 2.17 |
| 15/5/2012 | 16/5/2012 | 6.17 | 7.63 | 0.169 | 0.82 | 2.74 |
| 16/5/2012 | 23/5/2012 | 5.95 | 7.63 | 0.175 |      | 2.94 |
| 18/5/2012 | 23/5/2012 | 6.31 | 7.68 | 0.178 |      | 2.82 |
| 21/5/2012 | 23/5/2012 | 6.32 | 7.71 | 0.172 |      | 2.72 |
| 23/5/2012 | 30/5/2012 | 6.62 | 7.34 | 0.168 |      | 2.54 |
| 25/5/2012 | 30/5/2012 | 6.42 | 7.45 | 0.164 |      | 2.55 |
| 28/5/2012 | 30/5/2012 | 6.80 | 7.52 | 0.163 | 0.71 | 2.40 |
| 30/5/2012 | 6/6/2012  | 7.16 | 7.2  | 0.157 |      | 2.19 |
| 1/6/2012  | 6/6/2012  | 6.39 | 7.7  | 0.150 |      | 2.35 |
| 4/6/2012  | 6/6/2012  | 6.39 | 7.64 | 0.152 |      | 2.38 |
| 6/6/2012  | 20/6/2012 | 5.62 | 7.75 | 0.150 |      | 2.67 |
| 8/6/2012  | 20/6/2012 | 5.53 | 7.85 | 0.145 |      | 2.62 |
| 11/6/2012 | 20/6/2012 | 5.67 | 8.15 | 0.139 | 1.79 | 2.45 |
| 20/6/2012 | 11/7/2012 | 5.02 | 7.99 | 0.132 |      | 2.63 |
| 22/6/2012 | 11/7/2012 | 5.20 | 8.36 | 0.127 |      | 2.44 |
| 25/6/2012 | 11/7/2012 | 5.69 | 8.29 | 0.133 | 2.32 | 2.34 |
| 27/6/2012 | 11/7/2012 | 5.26 | 7.95 | 0.131 |      | 2.49 |
| 29/6/2012 | 11/7/2012 | 5.17 | 8.05 | 0.134 |      | 2.59 |
| 1/7/2012  | 11/7/2012 | 5.28 | 8.09 | 0.136 |      | 2.58 |
| 4/7/2012  | 12/7/2012 | 4.99 | 7.95 | 0.130 |      | 2.61 |
| 6/7/2012  | 12/7/2012 | 5.01 | 8.17 | 0.126 |      | 2.51 |
| 9/7/2012  | 12/7/2012 | 5.46 | 8.32 | 0.128 | 2.08 | 2.34 |
| 11/7/2012 | 28/8/2012 | 5.23 | 7.69 | 0.110 |      | 2.10 |
| 13/7/2012 | 28/8/2012 | 5.14 | 7.75 | 0.112 |      | 2.18 |
| 18/7/2012 | 28/8/2012 | 5.41 | 7.7  | 0.125 |      | 2.31 |
| 20/7/2012 | 28/8/2012 | 5.37 | 7.82 | 0.120 |      | 2.23 |
| 23/7/2012 | 28/8/2012 | 5.64 | 7.37 | 0.131 | 1.22 | 2.32 |

|            |           |      |      |       |      |         |
|------------|-----------|------|------|-------|------|---------|
| 25/7/2012  | 29/8/2012 | 5.28 | 7.78 | 0.128 |      | 2.42    |
| 27/7/2012  | 29/8/2012 | 4.98 | 7.7  | 0.122 |      | 2.45    |
| 30/7/2012  | 29/8/2012 | 5.53 | 8.25 | 0.127 |      | 2.30    |
| 1/8/2012   | 29/8/2012 | 5.25 | 7.82 | 0.126 |      | 2.40    |
| 3/8/2012   | 29/8/2012 | 5.30 | 7.77 | 0.125 |      | 2.36    |
| 6/8/2012   | 29/8/2012 | 5.20 | 7.81 | 0.126 | 1.68 | 2.42    |
| 8/8/2012   |           |      | 7.64 | 0.125 |      | #DIV/0! |
| 10/8/2012  |           |      | 7.73 | 0.123 |      | #DIV/0! |
| 15/8/2012  |           |      | 7.68 | 0.128 |      | #DIV/0! |
| 17/8/2012  |           | 5.01 | 7.7  | 0.134 | 0.59 | 2.67    |
| 22/8/2012  |           |      | 7.7  | 0.119 |      | #DIV/0! |
| 24/8/2012  |           |      | 7.77 | 0.119 |      | #DIV/0! |
| 27/8/2012  |           | 5.34 | 7.9  | 0.122 |      | 2.28    |
| 29/8/2012  |           |      | 7.88 | 0.121 |      | #DIV/0! |
| 5/9/2012   |           | 4.84 | 7.5  | 0.122 |      | 2.52    |
| 7/9/2012   |           |      | 7.6  | 0.123 |      | #DIV/0! |
| 10/9/2012  |           | 4.71 | 7.58 | 0.122 |      | 2.59    |
| 12/9/2012  |           |      | 7.57 | 0.124 |      | #DIV/0! |
| 17/9/2012  |           | 7.66 | 7.68 | 0.128 | 2.68 | 1.67    |
| 19/9/2012  |           | 5.36 | 7.51 | 0.128 |      | 2.39    |
| 21/9/2012  |           | 5.08 | 7.64 | 0.129 |      | 2.54    |
| 24/9/2012  |           | 4.83 | 7.57 | 0.126 |      | 2.61    |
| 26/9/2012  |           | 6.98 | 7.8  | 0.125 |      | 1.79    |
| 28/9/2012  |           | 4.78 | 7.83 | 0.120 |      | 2.51    |
| 1/10/2012  |           | 4.77 | 7.84 | 0.123 | 2.53 | 2.58    |
| 3/10/2012  |           | 4.84 | 7.46 | 0.109 |      | 2.25    |
| 5/10/2012  |           | 4.77 | 7.76 | 0.108 |      | 2.26    |
| 8/10/2012  |           | 4.96 | 7.75 | 0.116 |      | 2.34    |
| 10/10/2012 |           | 5.41 | 7.68 | 0.132 |      | 2.44    |
| 12/10/2012 |           | 5.01 | 7.74 | 0.130 |      | 2.59    |
| 15/10/2012 |           | 5.28 | 7.71 | 0.143 | 1.56 | 2.71    |
| 17/10/2012 |           | 5.47 | 7.39 | 0.144 |      | 2.63    |
| 19/10/2012 |           | 5.28 | 7.42 | 0.148 |      | 2.80    |
| 22/10/2012 |           | 5.37 | 7.46 | 0.151 |      | 2.81    |
| 24/10/2012 |           | 5.49 | 7.7  | 0.142 |      | 2.59    |
| 26/10/2012 |           | 5.46 | 7.8  | 0.136 |      | 2.49    |
| 30/10/2012 |           | 4.37 | 7.73 | 0.105 | 2.15 | 2.40    |
| 31/10/2012 |           | 5.69 | 7.62 | 0.150 |      | 2.64    |
| 2/11/2012  |           | 6.09 | 7.57 | 0.191 |      | 3.14    |
| 5/11/2012  |           | 6.93 | 7.49 | 0.151 |      | 2.18    |
| 7/11/2012  |           | 7.43 | 7.36 | 0.243 |      | 3.27    |
| 9/11/2012  |           | 6.75 | 7.27 | 0.212 | 0.12 | 3.14    |
| 14/11/2012 |           | 6.32 |      | 0.211 |      | 3.34    |
| 16/11/2012 |           | 6.03 |      | 0.205 |      | 3.40    |
| 19/11/2012 |           | 6.31 |      | 0.197 |      | 3.12    |
| 21/11/2012 |           | 5.63 |      | 0.174 |      | 3.09    |
| 24/11/2012 |           | 5.81 |      | 0.170 |      | 2.93    |
| 28/11/2012 |           | 5.52 |      | 0.171 |      | 3.10    |
| 30/11/2012 |           | 5.26 |      | 0.165 |      | 3.14    |
| 3/12/2012  |           | 5.70 |      | 0.161 |      | 2.82    |
| 5/12/2012  |           | 5.12 | 7.47 | 0.140 |      | 2.73    |
| 7/12/2012  |           | 5.21 | 7.58 | 0.140 |      | 2.69    |
| 10/12/2012 |           | 5.03 | 7.65 | 0.133 | 1.79 | 2.64    |
| 12/12/2012 |           | 4.76 | 7.44 | 0.135 |      | 2.84    |
| 14/12/2012 |           | 6.00 | 7.33 | 0.183 |      | 3.05    |
| 17/12/2012 |           | 5.78 | 7.49 | 0.173 |      | 2.99    |

**Table S2.** Raw water Fluorescence Data.

| Date       | Fmax     |          |          |
|------------|----------|----------|----------|
|            | C1       | C2       | C3       |
| 13/11/2009 | 0.394797 | 0.223241 | 0.225544 |
| 16/11/2009 | 0.422579 | 0.252232 | 0.253892 |
| 18/11/2009 | 0.458456 | 0.279477 | 0.284616 |
| 20/11/2009 | 0.507788 | 0.318823 | 0.286368 |
| 23/11/2009 | 0.479211 | 0.303703 | 0.265096 |
| 25/11/2009 | 0.403742 | 0.235369 | 0.243478 |
| 30/11/2009 | 0.505929 | 0.300255 | 0.334426 |
| 2/12/2009  | 0.565743 | 0.365883 | 0.424458 |
| 4/12/2009  | 0.547297 | 0.337144 | 0.396078 |
| 7/12/2009  | 0.535263 | 0.309829 | 0.272434 |
| 9/12/2009  | 0.580593 | 0.366316 | 0.276008 |
| 11/12/2009 | 0.597019 | 0.388063 | 0.292017 |
| 14/12/2009 | 0.581838 | 0.404262 | 0.353772 |
| 16/12/2009 | 0.594091 | 0.415007 | 0.332855 |
| 18/12/2009 | 0.591954 | 0.422101 | 0.354364 |
| 23/12/2009 | 0.579651 | 0.4327   | 0.347278 |
| 28/12/2009 | 0.557628 | 0.41159  | 0.403313 |
| 30/12/2009 | 0.526127 | 0.403405 | 0.286052 |
| 6/1/2010   | 0.564743 | 0.413769 | 0.226948 |
| 8/1/2010   | 0.628954 | 0.440594 | 0.392535 |
| 11/1/2010  | 0.521008 | 0.387846 | 0.427543 |
| 13/1/2010  | 0.532242 | 0.39559  | 0.269996 |
| 16/1/2010  | 0.539508 | 0.407948 | 0.329479 |
| 22/1/2010  | 0.53458  | 0.376703 | 0.242341 |
| 25/1/2010  | 0.482261 | 0.349772 | 0.323593 |
| 27/1/2010  | 0.496847 | 0.376739 | 0.249048 |
| 29/1/2010  | 0.449092 | 0.353702 | 0.258839 |
| 1/2/2010   | 0.503133 | 0.403002 | 0.309548 |
| 4/2/2010   | 0.565167 | 0.43834  | 0.396141 |
| 5/2/2010   | 0.549752 | 0.449284 | 0.30438  |
| 8/2/2010   | 0.512829 | 0.354166 | 0.292506 |
| 10/2/2010  | 0.503831 | 0.355032 | 0.241742 |
| 15/2/2010  | 0.506027 | 0.379192 | 0.124054 |
| 17/2/2010  | 0.523107 | 0.371116 | 0.220967 |
| 19/2/2010  | 0.519808 | 0.361521 | 0.191396 |
| 22/2/2010  | 0.489025 | 0.319557 | 0.217614 |
| 24/2/2010  | 0.472852 | 0.305449 | 0.226814 |
| 26/2/2010  | 0.463195 | 0.290107 | 0.196043 |
| 1/3/2010   | 0.490664 | 0.310624 | 0.400851 |
| 3/3/2010   | 0.488669 | 0.315212 | 0.303584 |
| 8/3/2010   | 0.495862 | 0.321391 | 0.477558 |
| 10/3/2010  | 0.499112 | 0.329586 | 0.455576 |
| 17/3/2010  | 0.469593 | 0.391258 | 0.131526 |
| 19/3/2010  | 0.475629 | 0.386144 | 0.392409 |
| 14/4/2010  | 0.513805 | 0.311906 | 0.463987 |
| 21/4/2010  | 0.552748 | 0.339655 | 0.378168 |
| 28/4/2010  | 0.523858 | 0.312056 | 0.403881 |
| 5/5/2010   | 0.572053 | 0.382264 | 0.371935 |
| 19/5/2010  | 0.643296 | 0.44261  | 0.572869 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 26/5/2010  | 0.743751 | 0.58683  | 0.502317 |
| 2/6/2010   | 0.815726 | 0.545371 | 0.417081 |
| 9/6/2010   | 0.789433 | 0.593381 | 0.31343  |
| 17/6/2010  | 0.752364 | 0.572169 | 0.460058 |
| 30/6/2010  | 0.885925 | 0.509599 | 0.538027 |
| 7/7/2010   | 0.769966 | 0.429288 | 0.488975 |
| 14/7/2010  | 0.674396 | 0.384938 | 0.474599 |
| 21/7/2010  | 0.679091 | 0.356093 | 0.36911  |
| 28/7/2010  | 0.677193 | 0.408523 | 0.518673 |
| 4/8/2010   | 0.566622 | 0.338594 | 0.301508 |
| 11/8/2010  | 0.611347 | 0.351885 | 0.360534 |
| 18/8/2010  | 0.585361 | 0.33729  | 0.40037  |
| 25/8/2010  | 0.641442 | 0.365463 | 0.404907 |
| 1/9/2010   | 0.536463 | 0.297024 | 0.565192 |
| 13/9/2010  | 0.544276 | 0.291503 | 0.439094 |
| 15/9/2010  | 0.569574 | 0.289514 | 0.255841 |
| 17/9/2010  | 0.544061 | 0.276002 | 0.2373   |
| 20/9/2010  | 0.470661 | 0.242587 | 0.367414 |
| 22/9/2010  | 0.519788 | 0.243759 | 0.381837 |
| 24/9/2010  | 0.476254 | 0.236125 | 0.342497 |
| 27/9/2010  | 0.434271 | 0.227838 | 0.418785 |
| 29/9/2010  | 0.46949  | 0.245359 | 0.431102 |
| 1/10/2010  | 0.444563 | 0.240762 | 0.363492 |
| 4/10/2010  | 0.438185 | 0.219957 | 0.634703 |
| 6/10/2010  | 0.451171 | 0.231652 | 0.35408  |
| 11/10/2010 | 0.474873 | 0.246888 | 0.355445 |
| 13/10/2010 | 0.454821 | 0.245995 | 0.368045 |
| 18/10/2010 | 0.445461 | 0.251679 | 0.338284 |
| 20/10/2010 | 0.467075 | 0.25487  | 0.377742 |
| 22/10/2010 | 0.464669 | 0.27617  | 0.452689 |
| 27/10/2010 | 0.481558 | 0.267251 | 0.602859 |
| 29/10/2010 | 0.471906 | 0.270442 | 0.327995 |
| 1/11/2010  | 0.473497 | 0.273006 | 0.381624 |
| 3/11/2010  | 0.484662 | 0.26124  | 0.568301 |
| 5/11/2010  | 0.476288 | 0.276577 | 0.358522 |
| 8/11/2010  | 0.459945 | 0.267512 | 0.394697 |
| 10/11/2010 | 0.483183 | 0.269934 | 0.389356 |
| 12/11/2010 | 0.491172 | 0.291137 | 0.285271 |
| 15/11/2010 | 0.493383 | 0.289979 | 0.298676 |
| 17/11/2010 | 0.511517 | 0.287618 | 0.411795 |
| 19/11/2010 | 0.506149 | 0.299115 | 0.315718 |
| 22/11/2010 | 0.509355 | 0.278822 | 0.233031 |
| 23/11/2010 | 0.519276 | 0.300078 | 0.253806 |
| 24/11/2010 | 0.523907 | 0.308777 | 0.276687 |
| 29/11/2010 | 0.547585 | 0.435193 | 0.3457   |
| 1/12/2010  | 0.562762 | 0.44394  | 0.395889 |
| 3/12/2010  | 0.577558 | 0.504079 | 0.417468 |
| 6/12/2010  | 0.504382 | 0.444374 | 0.280355 |
| 10/12/2010 | 0.508711 | 0.482465 | 0.340627 |
| 13/12/2010 | 0.484013 | 0.434053 | 0.472603 |
| 15/12/2010 | 0.50487  | 0.417518 | 0.329581 |
| 17/12/2010 | 0.493056 | 0.420718 | 0.306164 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 21/12/2010 | 0.527426 | 0.403546 | 0.286896 |
| 22/12/2010 | 0.532515 | 0.435688 | 0.273625 |
| 24/12/2010 | 0.581628 | 0.468843 | 0.336501 |
| 27/12/2010 | 0.542739 | 0.464449 | 0.263132 |
| 29/12/2010 | 0.5559   | 0.463662 | 0.292301 |
| 31/12/2010 | 0.534292 | 0.436227 | 0.309335 |
| 5/1/2011   | 0.416537 | 0.376699 | 0.369157 |
| 10/1/2011  | 0.431455 | 0.363156 | 0.245616 |
| 12/1/2011  | 0.446408 | 0.382158 | 0.302668 |
| 14/1/2011  | 0.417138 | 0.358908 | 0.414044 |
| 17/1/2011  | 0.426771 | 0.355894 | 0.267787 |
| 19/1/2011  | 0.454977 | 0.381994 | 0.259147 |
| 21/1/2011  | 0.396593 | 0.330201 | 0.357622 |
| 24/1/2011  | 0.402488 | 0.320728 | 0.323451 |
| 26/1/2011  | 0.419021 | 0.342112 | 0.289571 |
| 28/1/2011  | 0.403561 | 0.316529 | 0.240748 |
| 31/1/2011  | 0.392957 | 0.319787 | 0.262974 |
| 4/2/2011   | 0.394206 | 0.301263 | 0.325171 |
| 7/2/2011   | 0.387667 | 0.30567  | 0.194015 |
| 9/2/2011   | 0.399145 | 0.326329 | 0.226624 |
| 14/2/2011  | 0.391903 | 0.303813 | 0.167173 |
| 16/2/2011  | 0.41177  | 0.322744 | 0.263865 |
| 18/2/2011  | 0.373476 | 0.28585  | 0.24777  |
| 21/2/2011  | 0.397408 | 0.320724 | 0.094459 |
| 23/2/2011  | 0.417264 | 0.330727 | 0.025863 |
| 25/2/2011  | 0.39262  | 0.300052 | 0.140694 |
| 2/3/2011   | 0.405987 | 0.339045 | 0.095871 |
| 4/3/2011   | 0.348608 | 0.279729 | 0.069022 |
| 7/3/2011   | 0.363853 | 0.330996 | 0.186875 |
| 9/3/2011   | 0.40238  | 0.352782 | 0.299339 |
| 11/3/2011  | 0.393113 | 0.359231 | 0.234862 |
| 15/3/2011  | 0.393006 | 0.349671 | 0.195498 |
| 16/3/2011  | 0.396437 | 0.357574 | 0.225244 |
| 18/3/2011  | 0.370026 | 0.316335 | 0.235319 |
| 21/3/2011  | 0.382616 | 0.297656 | 0.195775 |
| 23/3/2011  | 0.402053 | 0.33264  | 0.204162 |
| 25/3/2011  | 0.387043 | 0.311106 | 0.194055 |
| 28/3/2011  | 0.380303 | 0.292237 | 0.195972 |
| 30/3/2011  | 0.412794 | 0.311009 | 0.230128 |
| 1/4/2011   | 0.383017 | 0.28604  | 0.218955 |
| 4/4/2011   | 0.389873 | 0.298956 | 0.221638 |
| 6/4/2011   | 0.408671 | 0.307933 | 0.229362 |
| 8/4/2011   | 0.470671 | 0.404103 | 0.253198 |
| 11/4/2011  | 0.487688 | 0.433054 | 0.26321  |
| 14/4/2011  | 0.501581 | 0.428316 | 0.305998 |
| 15/4/2011  | 0.481807 | 0.407984 | 0.308294 |
| 20/4/2011  | 0.525586 | 0.431542 | 0.300333 |
| 22/4/2011  | 0.555124 | 0.477135 | 0.318275 |
| 25/4/2011  | 0.519891 | 0.460118 | 0.280624 |
| 27/4/2011  | 0.531881 | 0.498015 | 0.350426 |
| 29/4/2011  | 0.522331 | 0.472069 | 0.291938 |
| 2/5/2011   | 0.519725 | 0.457797 | 0.298668 |

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|           |          |          |          |
|-----------|----------|----------|----------|
| 4/5/2011  | 0.585473 | 0.507845 | 0.299781 |
| 6/5/2011  | 0.550308 | 0.472613 | 0.273925 |
| 9/5/2011  | 0.472779 | 0.387718 | 0.265041 |
| 11/5/2011 | 0.497672 | 0.39544  | 0.307434 |
| 13/5/2011 | 0.511219 | 0.401937 | 0.262043 |
| 18/5/2011 | 0.705741 | 0.636891 | 0.429658 |
| 20/5/2011 | 0.675504 | 0.626354 | 0.372282 |
| 23/5/2011 | 0.627446 | 0.554409 | 0.300128 |
| 25/5/2011 | 0.661992 | 0.548469 | 0.30094  |
| 27/5/2011 | 0.614436 | 0.555139 | 0.318535 |
| 3/6/2011  | 0.727057 | 0.588214 | 0.318582 |
| 8/6/2011  | 0.730697 | 0.585053 | 0.3337   |
| 10/6/2011 | 0.700456 | 0.525706 | 0.367974 |
| 15/6/2011 | 0.737388 | 0.561428 | 0.288372 |
| 17/6/2011 | 0.725573 | 0.530603 | 0.342592 |
| 20/6/2011 | 0.707361 | 0.49432  | 0.214474 |
| 22/6/2011 | 0.79015  | 0.605018 | 0.296396 |
| 24/6/2011 | 0.745806 | 0.556553 | 0.273349 |
| 30/6/2011 | 0.7503   | 0.545225 | 0.242302 |
| 1/7/2011  | 0.801325 | 0.628551 | 0.237252 |
| 6/7/2011  | 0.763632 | 0.562538 | 0.374223 |
| 9/7/2011  | 0.682712 | 0.448816 | 0.412118 |
| 11/7/2011 | 0.76106  | 0.500954 | 0.398137 |
| 13/7/2011 | 0.808919 | 0.639238 | 0.36178  |
| 15/7/2011 | 0.720756 | 0.451644 | 0.366206 |
| 18/7/2011 | 0.726081 | 0.434756 | 0.543858 |
| 20/7/2011 | 0.748612 | 0.485135 | 0.370578 |
| 25/7/2011 | 0.491884 | 0.338121 | 0.279306 |
| 27/7/2011 | 0.659595 | 0.401398 | 0.362664 |
| 3/8/2011  | 0.559155 | 0.384332 | 0.353243 |
| 8/8/2011  | 0.546189 | 0.384465 | 0.322164 |
| 10/8/2011 | 0.554329 | 0.376593 | 0.307426 |
| 17/8/2011 | 0.511361 | 0.310867 | 0.302313 |
| 20/8/2011 | 0.533291 | 0.336813 | 0.323742 |
| 22/8/2011 | 0.549205 | 0.350488 | 0.327672 |
| 24/8/2011 | 0.530549 | 0.330452 | 0.345156 |
| 26/8/2011 | 0.631531 | 0.386078 | 0.374704 |
| 29/8/2011 | 0.570282 | 0.364442 | 0.373465 |
| 31/8/2011 | 0.614714 | 0.389468 | 0.495153 |
| 2/9/2011  | 0.624904 | 0.396425 | 0.493267 |
| 5/9/2011  | 0.637406 | 0.385274 | 0.473432 |
| 8/9/2011  | 0.574796 | 0.353445 | 0.338489 |
| 9/9/2011  | 0.658873 | 0.453832 | 0.311773 |
| 12/9/2011 | 0.696254 | 0.578087 | 0.291678 |
| 14/9/2011 | 0.651465 | 0.497546 | 0.451797 |
| 16/9/2011 | 0.697074 | 0.511814 | 0.388756 |
| 19/9/2011 | 0.71818  | 0.540464 | 0.376574 |
| 21/9/2011 | 0.720478 | 0.564098 | 0.703102 |
| 23/9/2011 | 0.79829  | 0.585915 | 0.408568 |
| 26/9/2011 | 0.78139  | 0.546016 | 0.412473 |
| 28/9/2011 | 0.721298 | 0.550829 | 0.306329 |
| 30/9/2011 | 0.751559 | 0.581036 | 0.325518 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 3/10/2011  | 0.774402 | 0.646456 | 0.306077 |
| 5/10/2011  | 0.747767 | 0.597668 | 0.320145 |
| 7/10/2011  | 0.739056 | 0.591246 | 0.276292 |
| 10/10/2011 | 0.755034 | 0.579802 | 0.274146 |
| 12/10/2011 | 0.70027  | 0.50201  | 0.302242 |
| 14/10/2011 | 0.726183 | 0.583785 | 0.270122 |
| 17/10/2011 | 0.736168 | 0.56203  | 0.307237 |
| 19/10/2011 | 0.720859 | 0.563988 | 0.355437 |
| 21/10/2011 | 0.74116  | 0.595538 | 0.367003 |
| 24/10/2011 | 0.708176 | 0.64216  | 0.352367 |
| 26/10/2011 | 0.618481 | 0.565119 | 0.286588 |
| 28/10/2011 | 0.618032 | 0.549609 | 0.315892 |
| 31/10/2011 | 0.662719 | 0.579736 | 0.337566 |
| 2/11/2011  | 0.646014 | 0.543439 | 0.083287 |
| 4/11/2011  | 0.655994 | 0.550069 | 0.084707 |
| 7/11/2011  | 0.674182 | 0.561702 | 0.079444 |
| 14/11/2011 | 0.602202 | 0.461647 | 0.326378 |
| 21/11/2011 | 0.572282 | 0.495491 | 0.311024 |
| 23/11/2011 | 0.532994 | 0.443861 | 0.277223 |
| 25/11/2011 | 0.54207  | 0.454822 | 0.243249 |
| 28/11/2011 | 0.564474 | 0.477983 | 0.312128 |
| 30/11/2011 | 0.496603 | 0.429823 | 0.244124 |
| 2/12/2011  | 0.527948 | 0.440091 | 0.233007 |
| 5/12/2011  | 0.509736 | 0.436745 | 0.224786 |
| 7/12/2011  | 0.481524 | 0.395166 | 0.42191  |
| 9/12/2011  | 0.482017 | 0.41712  | 0.412671 |
| 12/12/2011 | 0.477776 | 0.391046 | 0.375185 |
| 14/12/2011 | 0.456992 | 0.370551 | 0.242791 |
| 16/12/2011 | 0.458749 | 0.379718 | 0.31489  |
| 19/12/2011 | 0.464932 | 0.366864 | 0.409657 |
| 26/12/2011 | 0.449233 | 0.379824 | 0.215618 |
| 13/1/2012  | 0.427444 | 0.329401 | 0.253182 |
| 18/1/2012  | 0.413268 | 0.309793 | 0.256741 |
| 20/1/2012  | 0.401034 | 0.298377 | 0.236937 |
| 24/1/2012  | 0.384832 | 0.299738 | 0.227942 |
| 25/1/2012  | 0.418719 | 0.321086 | 0.229331 |
| 27/1/2012  | 0.380684 | 0.293479 | 0.188705 |
| 30/1/2012  | 0.373632 | 0.304158 | 0.20413  |
| 1/2/2012   | 0.379698 | 0.294659 | 0.195719 |
| 3/2/2012   | 0.377688 | 0.290686 | 0.17833  |
| 6/2/2012   | 0.371456 | 0.264617 | 0.176507 |
| 8/2/2012   | 0.375784 | 0.275211 | 0.216691 |
| 10/2/2012  | 0.380811 | 0.280537 | 0.176184 |
| 13/2/2012  | 0.383329 | 0.274628 | 0.16472  |
| 15/2/2012  | 0.36559  | 0.261333 | 0.219082 |
| 17/2/2012  | 0.355674 | 0.25529  | 0.19441  |
| 20/2/2012  | 0.359524 | 0.253964 | 0.231548 |
| 22/2/2012  | 0.36212  | 0.252687 | 0.200067 |
| 24/2/2012  | 0.383841 | 0.276599 | 0.28647  |
| 27/2/2012  | 0.414746 | 0.303442 | 0.255573 |
| 29/2/2012  | 0.401966 | 0.302284 | 0.33871  |
| 5/3/2012   | 0.393621 | 0.308697 | 0.258421 |

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|           |          |          |          |
|-----------|----------|----------|----------|
| 7/3/2012  | 0.359251 | 0.300277 | 0.230546 |
| 9/3/2012  | 0.363941 | 0.29732  | 0.224849 |
| 12/3/2012 | 0.355015 | 0.286686 | 0.230033 |
| 14/3/2012 | 0.38592  | 0.277797 | 0.201747 |
| 16/3/2012 | 0.394367 | 0.282712 | 0.196879 |
| 19/3/2012 | 0.42557  | 0.306929 | 0.109513 |
| 21/3/2012 | 0.46911  | 0.375267 | 0.239509 |
| 23/3/2012 | 0.486678 | 0.398786 | 0.246839 |
| 26/3/2012 | 0.523697 | 0.41921  | 0.247399 |
| 28/3/2012 | 0.583955 | 0.450813 | 0.266311 |
| 30/3/2012 | 0.584292 | 0.442491 | 0.270201 |
| 2/4/2012  | 0.554793 | 0.433063 | 0.306353 |
| 4/4/2012  | 0.552811 | 0.403816 | 0.273041 |
| 6/4/2012  | 0.57765  | 0.411215 | 0.293216 |
| 9/4/2012  | 0.563572 | 0.400271 | 0.303386 |
| 11/4/2012 | 0.507998 | 0.342338 | 0.297848 |
| 13/4/2012 | 0.502933 | 0.346029 | 0.260488 |
| 16/4/2012 | 0.486312 | 0.326006 | 0.295686 |
| 18/4/2012 | 0.452957 | 0.286014 | 0.292285 |
| 20/4/2012 | 0.442806 | 0.289864 | 0.246121 |
| 23/4/2012 | 0.440654 | 0.30071  | 0.273065 |
| 25/4/2012 | 0.457085 | 0.285855 | 0.27772  |
| 30/4/2012 | 0.456758 | 0.283141 | 0.308641 |
| 2/5/2012  | 0.419846 | 0.274097 | 0.278746 |
| 4/5/2012  | 0.413077 | 0.266075 | 0.250113 |
| 7/5/2012  | 0.428059 | 0.283189 | 0.237789 |
| 10/5/2012 | 0.498224 | 0.353799 | 0.279156 |
| 15/5/2012 | 0.555608 | 0.414671 | 0.290068 |
| 16/5/2012 | 0.547536 | 0.387917 | 0.304617 |
| 21/5/2012 | 0.560761 | 0.395997 | 0.317809 |
| 23/5/2012 | 0.632853 | 0.412284 | 0.367508 |
| 25/5/2012 | 0.634244 | 0.4252   | 0.361851 |
| 28/5/2012 | 0.623898 | 0.411741 | 0.381624 |
| 1/6/2012  | 0.572824 | 0.336004 | 0.342442 |
| 4/6/2012  | 0.597834 | 0.369061 | 0.328847 |
| 6/6/2012  | 0.562552 | 0.336928 | 0.374325 |
| 8/6/2012  | 0.558765 | 0.327549 | 0.34039  |
| 11/6/2012 | 0.531622 | 0.302805 | 0.335017 |
| 20/6/2012 | 0.540631 | 0.303482 | 0.319174 |
| 22/6/2012 | 0.507378 | 0.277351 | 0.392677 |
| 25/6/2012 | 0.53681  | 0.297851 | 0.334796 |
| 27/6/2012 | 0.440503 | 0.247489 | 0.336256 |
| 29/6/2012 | 0.453128 | 0.251202 | 0.292774 |
| 1/7/2012  | 0.438151 | 0.247016 | 0.317139 |
| 4/7/2012  | 0.525498 | 0.29641  | 0.357243 |
| 6/7/2012  | 0.444978 | 0.245482 | 0.441674 |
| 9/7/2012  | 0.491621 | 0.26928  | 0.37831  |
| 11/7/2012 | 0.460521 | 0.253708 | 0.214663 |
| 13/7/2012 | 0.474883 | 0.269032 | 0.22395  |
| 18/7/2012 | 0.513679 | 0.285775 | 0.345188 |
| 20/7/2012 | 0.469729 | 0.258941 | 0.310787 |
| 23/7/2012 | 0.448257 | 0.273943 | 0.361299 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 25/7/2012  | 0.440967 | 0.252594 | 0.296159 |
| 27/7/2012  | 0.448657 | 0.263794 | 0.306479 |
| 30/7/2012  | 0.44326  | 0.254031 | 0.33901  |
| 1/8/2012   | 0.478855 | 0.286394 | 0.33897  |
| 3/8/2012   | 0.479372 | 0.288303 | 0.292648 |
| 6/8/2012   | 0.511702 | 0.304618 | 0.335262 |
| 8/8/2012   | 0.480407 | 0.281019 | 0.346758 |
| 10/8/2012  | 0.465303 | 0.27682  | 0.304696 |
| 15/8/2012  | 0.50081  | 0.293448 | 0.306574 |
| 17/8/2012  | 0.501962 | 0.298262 | 0.305761 |
| 22/8/2012  | 0.496721 | 0.291415 | 0.302321 |
| 24/8/2012  | 0.511361 | 0.291084 | 0.36096  |
| 27/8/2012  | 0.48473  | 0.268992 | 0.347602 |
| 29/8/2012  | 0.464966 | 0.277152 | 0.322449 |
| 5/9/2012   | 0.474595 | 0.261156 | 0.293248 |
| 7/9/2012   | 0.552538 | 0.118818 | 0.234349 |
| 10/9/2012  | 0.485906 | 0.278544 | 0.365599 |
| 12/9/2012  | 0.505846 | 0.288723 | 0.280048 |
| 17/9/2012  | 0.501522 | 0.291994 | 0.299339 |
| 19/9/2012  | 0.452557 | 0.260395 | 0.28445  |
| 21/9/2012  | 0.41722  | 0.241814 | 0.255305 |
| 24/9/2012  | 0.461428 | 0.266141 | 0.280521 |
| 26/9/2012  | 0.513181 | 0.301506 | 0.28501  |
| 28/9/2012  | 0.488425 | 0.281753 | 0.285815 |
| 1/10/2012  | 0.499727 | 0.27823  | 0.288774 |
| 3/10/2012  | 0.494398 | 0.286447 | 0.347365 |
| 5/10/2012  | 0.537171 | 0.320216 | 0.352636 |
| 8/10/2012  | 0.490743 | 0.316976 | 0.320602 |
| 10/10/2012 | 0.516543 | 0.325259 | 0.297019 |
| 12/10/2012 | 0.52174  | 0.332844 | 0.29466  |
| 15/10/2012 | 0.52642  | 0.33226  | 0.335357 |
| 17/10/2012 | 0.532359 | 0.339301 | 0.294936 |
| 19/10/2012 | 0.52867  | 0.332176 | 0.29698  |
| 22/10/2012 | 0.534565 | 0.335213 | 0.305666 |
| 26/10/2012 | 0.543325 | 0.352256 | 0.321446 |
| 30/10/2012 | 0.392357 | 0.222423 | 0.821712 |
| 31/10/2012 | 0.565753 | 0.402512 | 0.409428 |
| 2/11/2012  | 0.5911   | 0.496967 | 0.389016 |
| 5/11/2012  | 0.529626 | 0.513984 | 0.314306 |
| 7/11/2012  | 0.540592 | 0.510682 | 0.303394 |
| 9/11/2012  | 0.512073 | 0.471486 | 0.286383 |
| 14/11/2012 | 0.524102 | 0.485736 | 0.260039 |
| 16/11/2012 | 0.521799 | 0.477665 | 0.290896 |
| 19/11/2012 | 0.543168 | 0.467053 | 0.304373 |
| 21/11/2012 | 0.537405 | 0.452418 | 0.328327 |
| 24/11/2012 | 0.53986  | 0.433416 | 0.283851 |
| 28/11/2012 | 0.534345 | 0.42215  | 0.315884 |
| 30/11/2012 | 0.52522  | 0.409707 | 0.300199 |
| 3/12/2012  | 0.544105 | 0.416108 | 0.285145 |
| 5/12/2012  | 0.488083 | 0.361574 | 0.382389 |
| 7/12/2012  | 0.497374 | 0.375956 | 0.265183 |
| 10/12/2012 | 0.485697 | 0.367501 | 0.286131 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 12/12/2012 | 0.466079 | 0.350387 | 0.288821 |
| 14/12/2012 | 0.525971 | 0.453775 | 0.34342  |
| 17/12/2012 | 0.528182 | 0.446376 | 0.471262 |

**Table S3.** Raw Water DBP Data.

| <b>Date</b> | <b>THM</b> | <b>HAA</b> |
|-------------|------------|------------|
| 22/9/2010   | 110.1      | 128.1      |
| 29/9/2010   | 130.1      | 135.9      |
| 6/10/2010   | 117.2      | 128.1      |
| 13/10/2010  | 124.9      | 155.7      |
| 20/10/2010  | 118.5      | 148.9      |
| 27/10/2010  | 125.1      | 165.7      |
| 3/11/2010   | 145.3      | 127.3      |
| 10/11/2010  | 149.8      | 139.8      |
| 17/11/2010  | 162.3      | 110.5      |
| 24/11/2010  | 166.7      | 129.2      |
| 1/12/2010   | 253.0      | 224.5      |
| 8/12/2010   | 225.9      | 197.4      |
| 15/12/2010  | 224.5      | 158.5      |
| 22/12/2010  | 211.2      | 220.2      |
| 29/12/2010  | 190.0      | 231.5      |
| 5/1/2011    | 219.0      | 258.1      |
| 12/1/2011   | 226.0      | 228.0      |
| 19/1/2011   | 188.8      | 210.0      |
| 26/1/2011   | 171.8      | 158.5      |
| 2/2/2011    | 153.7      | 166.0      |
| 9/2/2011    | 177.3      | 120.9      |
| 16/2/2011   | 167.7      | 130.2      |
| 23/2/2011   | 186.5      | 183.2      |
| 2/3/2011    | 211.9      | 218.1      |
| 9/3/2011    | 211.2      | 225.4      |
| 16/3/2011   | 216.0      | 252.6      |
| 23/3/2011   | 214.0      | 229.2      |
| 30/3/2011   | 171.8      | 254.3      |
| 6/4/2011    | 167.5      | 244.7      |
| 14/4/2011   | 240.6      | 255.5      |
| 20/4/2011   | 220.4      | 239.0      |
| 27/4/2011   | 255.2      | 279.8      |
| 4/5/2011    | 280.1      | 274.0      |
| 11/5/2011   | 294.2      | 262.3      |
| 18/5/2011   | 286.1      | 285.0      |
| 25/5/2011   | 323.8      | 266.6      |
| 8/6/2011    | 413.1      | 291.8      |
| 15/6/2011   | 367.3      | 248.7      |
| 22/6/2011   | 319.0      | 240.5      |
| 30/6/2011   | 336.5      | 235.7      |
| 6/7/2011    | 341.4      | 287.8      |
| 13/7/2011   | 146.8      | 89.4       |
| 20/7/2011   | 289.6      | 233.9      |
| 27/7/2011   | 284.8      | 197.6      |
| 3/8/2011    | 299.3      | 217.8      |
| 10/8/2011   | 275.8      | 200.8      |

|            |       |       |
|------------|-------|-------|
| 22/8/2011  | 293.7 | 203.8 |
| 29/8/2011  | 241.2 | 183.3 |
| 5/9/2011   | 244.7 | 187.1 |
| 12/9/2011  | 384.2 | 291.6 |
| 19/9/2011  | 395.2 | 277.2 |
| 26/9/2011  | 421.0 | 226.2 |
| 3/10/2011  | 404.7 | 258.4 |
| 10/10/2011 | 410.4 | 275.6 |
| 17/10/2011 | 406.0 | 242.3 |
| 24/10/2011 | 395.7 | 295.9 |
| 31/10/2011 | 389.5 | 367.4 |
| 7/11/2011  | 400.7 | 353.2 |
| 14/11/2011 | 332.1 | 286.8 |
| 21/11/2011 | 427.0 | 369.1 |
| 28/11/2011 | 459.7 | 325.0 |
| 5/12/2011  | 439.6 | 303.5 |
| 12/12/2011 | 437.0 | 338.2 |
| 19/12/2011 | 402.1 | 303.1 |
| 26/12/2011 | 273.9 | 254.1 |
| 2/1/2012   | 258.1 | 227.6 |
| 30/1/2012  | 189.1 | 199.5 |
| 20/2/2012  | 175.7 | 148.9 |
| 5/3/2012   | 208.8 | 196.8 |
| 19/3/2012  | 246.8 | 198.9 |
| 2/4/2012   | 327.7 | 272.2 |
| 16/4/2012  | 323.9 | 207.6 |
| 30/4/2012  | 258.5 | 178.5 |
| 15/5/2012  | 317.5 | 249.4 |
| 28/5/2012  | 332.3 | 233.4 |
| 11/6/2012  | 288.0 | 162.0 |
| 25/6/2012  | 274.1 | 160.8 |
| 9/7/2012   | 270.0 | 151.9 |
| 23/7/2012  | 219.7 | 167.1 |
| 6/8/2012   | 219.5 | 160.8 |
| 17/8/2012  | 213.1 | 148.8 |
| 17/9/2012  | 195.5 | 165.3 |
| 1/10/2012  | 182.2 | 157.2 |
| 15/10/2012 | 202.1 | 175.2 |
| 30/10/2012 | 166.9 | 136.1 |
| 9/11/2012  | 220.7 | 344.9 |
| 10/12/2012 | 216.3 | 205.1 |

Table S4. Alum Water Data.

| Date       | Sample Analysis Date | TOC(mg/L) | pH   | UV254 (cm <sup>-1</sup> ) | Cl <sub>2</sub> Residual | SUVA 254   |
|------------|----------------------|-----------|------|---------------------------|--------------------------|------------|
| 13/11/2009 |                      | 3.72      |      | 0.042                     |                          | 1.12817106 |
| 16/11/2009 |                      | 3.72      |      | 0.043                     |                          | 1.15572238 |
| 18/11/2009 |                      | 3.72      |      | 0.046                     |                          | 1.23567268 |
| 20/11/2009 |                      | 3.69      |      | 0.044                     |                          | 1.19097446 |
| 23/11/2009 |                      | 3.47      |      | 0.046                     |                          | 1.32547893 |
| 25/11/2009 |                      | 3.46      |      | 0.041                     |                          | 1.18426441 |
| 30/11/2009 |                      | 3.84      |      | 0.05                      |                          | 1.30336881 |
| 2/12/2009  |                      | 4.17      | 7.24 | 0.063                     |                          | 1.51140945 |
| 4/12/2009  |                      | 3.62      | 7.38 | 0.053                     |                          | 1.4627478  |

|            |           |      |      |        |            |
|------------|-----------|------|------|--------|------------|
| 7/12/2009  |           | 3.58 | 7.42 | 0.049  | 1.36980645 |
| 9/12/2009  |           | 3.58 | 7.48 | 0.052  | 1.45367215 |
| 11/12/2009 |           | 3.21 | 7.36 | 0.05   | 1.55878974 |
| 14/12/2009 |           | 3.81 | 7.3  | 0.055  | 1.44413405 |
| 16/12/2009 |           | 3.56 | 7.18 | 0.052  | 1.45960295 |
| 18/12/2009 |           | 3.55 | 7.12 | 0.053  | 1.49376661 |
| 21/12/2009 |           |      |      |        | #DIV/0!    |
| 23/12/2009 |           | 3.47 | 7.53 | 0.055  | 1.58481176 |
| 25/12/2009 |           |      |      |        | #DIV/0!    |
| 28/12/2009 |           | 3.63 | 7.29 | 0.052  | 1.43244466 |
| 30/12/2009 |           | 3.00 | 7.17 | 0.046  | 1.53480895 |
| 6/1/2010   |           | 4.82 | 7.17 | 0.052  | 1.07830804 |
| 8/1/2010   |           | 3.92 | 7.04 | 0.051  | 1.30062236 |
| 11/1/2010  |           | 3.85 | 6.83 | 0.044  | 1.14344767 |
| 13/1/2010  |           | 3.55 | 6.82 | 0.042  | 1.18425326 |
| 16/1/2010  |           | 3.82 | 6.8  | 0.042  | 1.09992888 |
| 20/1/2010  |           | 3.84 | 7.06 | 0.051  | 1.32937693 |
| 22/1/2010  |           | 3.76 | 7.04 | 0.047  | 1.24927911 |
| 25/1/2010  |           | 4.02 | 7.32 | 0.045  | 1.11810834 |
| 27/1/2010  |           | 3.67 | 7.26 | 0.044  | 1.20042003 |
| 29/1/2010  |           | 3.80 | 7.2  | 0.043  | 1.13153973 |
| 1/2/2010   |           | 3.02 | 6.79 | 0.041  | 1.35937286 |
| 4/2/2010   |           | 3.02 | 6.83 | 0.048  | 1.58929835 |
| 5/2/2010   |           | 3.06 | 6.72 | 0.042  | 1.37275955 |
| 8/2/2010   |           | 2.65 | 7.14 | 0.041  | 1.54847053 |
| 10/2/2010  |           | 4.75 | 7.19 | 0.042  | 0.88335763 |
| 15/2/2010  |           | 3.18 | 6.93 | 0.036  | 1.13192683 |
| 17/2/2010  |           | 2.75 | 7.16 | 0.039  | 1.41750693 |
| 19/2/2010  |           | 2.98 | 7.18 | 0.038  | 1.27359285 |
| 22/2/2010  |           | 2.77 | 7.42 | 0.042  | 1.51786313 |
| 24/2/2010  |           | 2.44 | 7.29 | 0.04   | 1.6413622  |
| 26/2/2010  |           | 2.74 | 7.23 | 0.04   | 1.45999426 |
| 1/3/2010   |           | 2.27 | 7.3  | 0.041  | 1.80453497 |
| 3/3/2010   |           | 2.43 | 7.39 | 0.048  | 1.976392   |
| 8/3/2010   |           | 2.65 | 7.38 | 0.041  | 1.54991568 |
| 10/3/2010  |           | 2.59 | 7.29 | 0.0383 | 1.47617661 |
| 15/3/2010  |           | 2.39 | 7.05 | 0.028  | 1.16923802 |
| 17/3/2010  |           | 1.92 | 7.12 | 0.037  | 1.92590442 |
| 19/3/2010  |           | 2.18 | 7.48 | 0.033  | 1.51412715 |
| 23/3/2010  |           | 2.31 | 7.07 | 0.043  | 1.8643111  |
| 24/3/2010  |           | 2.33 | 6.96 | 0.043  | 1.84630736 |
| 26/3/2010  |           | 2.38 | 6.94 | 0.035  | 1.47014534 |
| 31/3/2010  |           | 2.88 | 7.88 | 0.042  | 1.45918858 |
| 7/4/2010   |           | 2.67 | 7.7  | 0.044  | 1.65020339 |
| 14/4/2010  |           | 2.77 | 8.23 | 0.062  | 2.24078621 |
| 21/4/2010  |           | 2.81 | 7.74 | 0.046  | 1.63943716 |
| 28/4/2010  |           | 2.38 | 8.21 | 0.044  | 1.8470938  |
| 5/5/2010   |           | 3.07 | 8.21 | NA     | #VALUE!    |
| 19/5/2010  |           | 2.97 | NA   | 0.049  | 1.65142675 |
| 26/5/2010  |           | 3.27 | 7.13 | 0.062  | 1.89697225 |
| 2/6/2010   |           | 3.09 | 7.1  | 0.053  | 1.7133401  |
| 9/6/2010   |           | 3.11 | 6.83 | 0.055  | 1.76899954 |
| 17/6/2010  |           | 2.32 | 7.21 | 0.055  | 2.37293883 |
| 30/6/2010  |           | 2.63 | 6.96 | 0.045  | 1.71374202 |
| 7/7/2010   | 15/7/2010 | 2.66 | 6.93 | 0.049  | 1.84031386 |
| 14/7/2010  | 22/7/2010 | 2.92 | 7.24 | 0.043  | 1.4723896  |
| 21/7/2010  | 28/7/2010 | 2.23 | 6.71 | 0.039  | 1.74499861 |
| 28/7/2010  | 5/8/2010  | 2.00 | 6.51 | 0.043  | 2.14491912 |

|            |            |      |      |       |      |            |
|------------|------------|------|------|-------|------|------------|
| 4/8/2010   | 9/8/2010   | 2.27 | 6.89 | 0.042 |      | 1.852625   |
| 11/8/2010  | 20/8/2010  | 2.83 | 6.61 | 0.036 |      | 1.27045019 |
| 18/8/2010  | 24/8/2010  | 2.74 | 6.53 | 0.041 |      | 1.49760781 |
| 25/8/2010  | 31/8/2010  | 2.54 | 6.65 | 0.037 |      | 1.4553841  |
| 1/9/2010   | 10/9/2010  | 2.61 | 6.77 | 0.044 |      | 1.68495442 |
| 8/9/2010   | 14/9/2010  | 3.04 | 6.83 | 0.044 |      | 1.44604111 |
| 13/9/2010  | 21/9/2010  | 2.49 | 7.12 | 0.039 |      | 1.56374109 |
| 15/9/2010  | 22/9/2010  | 2.67 | 6.67 | 0.04  |      | 1.49614257 |
| 17/9/2010  | 22/9/2010  | 2.62 | 6.6  | 0.037 |      | 1.41169626 |
| 20/9/2010  | 29/9/2010  | 2.67 | 6.93 | 0.04  |      | 1.49559379 |
| 22/9/2010  | 29/9/2010  | 2.55 | 6.77 | 0.033 | 6.96 | 1.29216167 |
| 24/9/2010  | 29/9/2010  | 2.41 | 6.65 | 0.039 |      | 1.62007322 |
| 27/9/2010  | 8/10/2010  | 2.56 | 6.94 | 0.036 |      | 1.40369976 |
| 29/9/2010  | 8/10/2010  | 2.98 | 6.92 | 0.039 | 5.95 | 1.30682914 |
| 1/10/2010  | 8/10/2010  | 2.67 | 6.98 | 0.038 |      | 1.42332002 |
| 4/10/2010  | 12/10/2010 | 2.59 | 6.75 | 0.035 |      | 1.34891934 |
| 6/10/2010  | 12/10/2010 | 2.62 | 6.73 | 0.036 | 5.49 | 1.3765306  |
| 8/10/2010  | 12/10/2010 | 2.76 | 6.83 | 0.041 |      | 1.48388938 |
| 11/10/2010 | 19/10/2010 | 2.65 | 6.73 | 0.039 |      | 1.47148133 |
| 13/10/2010 | 19/10/2010 | 2.86 | 6.78 | 0.041 | 4.35 | 1.4348802  |
| 15/10/2010 | 19/10/2010 | 2.94 | 7.06 | 0.047 |      | 1.59598675 |
| 18/10/2010 | 26/10/2010 | 2.97 | 7.09 | 0.042 |      | 1.41199594 |
| 20/10/2010 | 26/10/2010 | 2.99 | 6.94 | 0.044 | 3.61 | 1.47388685 |
| 22/10/2010 | 26/10/2010 | 2.89 | 6.98 | 0.042 |      | 1.4514398  |
| 25/10/2010 | 5/11/2010  | 3.34 | 6.61 | 0.043 |      | 1.28718544 |
| 27/10/2010 | 5/11/2010  | 3.52 | 6.72 | 0.046 | 5.39 | 1.30618194 |
| 29/10/2010 | 5/11/2010  | 3.37 | 6.75 | 0.044 |      | 1.30721603 |
| 1/11/2010  | 9/11/2010  | 3.27 | 7.05 | 0.039 |      | 1.19152033 |
| 3/11/2010  | 9/11/2010  | 3.19 | 6.96 | 0.042 | 6.77 | 1.3153446  |
| 5/11/2010  | 9/11/2010  | 3.39 | 6.73 | 0.038 |      | 1.12098754 |
| 8/11/2010  | 19/11/2010 | 3.76 | 7.21 | 0.046 |      | 1.22451524 |
| 10/11/2010 | 19/11/2010 | 3.49 | 7.12 | 0.042 | 6.68 | 1.20193405 |
| 12/11/2010 | 19/11/2010 | 3.16 | 7.02 | 0.043 |      | 1.36206958 |
| 15/11/2010 | 24/11/2010 | 3.70 | 6.6  | 0.052 |      | 1.40395683 |
| 17/11/2010 | 24/11/2010 | 3.28 | 6.73 | 0.052 | 4.87 | 1.58344226 |
| 19/11/2010 | 24/11/2010 | 3.27 | 6.91 | 0.05  |      | 1.52862724 |
| 22/11/2010 | 3/12/2010  | 3.29 | 7.22 | 0.047 |      | 1.43057789 |
| 23/11/2010 | 3/12/2010  | 3.32 | 7.02 | 0.06  |      | 1.80942306 |
| 24/11/2010 | 3/12/2010  | 3.49 | 7.04 | 0.053 | 4.64 | 1.52028188 |
| 29/11/2010 | 14/12/2010 | 3.43 | 7.1  | 0.051 |      | 1.48802855 |
| 1/12/2010  | 14/12/2010 | 3.34 | 6.98 | 0.051 | 6.63 | 1.52682812 |
| 3/12/2010  | 14/12/2010 | 3.34 | 6.97 | 0.053 |      | 1.5857061  |
| 6/12/2010  | 15/12/2010 | 3.00 | 6.65 | 0.051 |      | 1.70182685 |
| 8/12/2010  | 15/12/2010 | 3.46 | 6.78 | 0.068 | 5.62 | 1.96449771 |
| 10/12/2010 | 15/12/2010 | 2.62 | 6.59 | 0.053 |      | 2.02387168 |
| 13/12/2010 | 21/12/2010 | 2.18 | 6.71 | 0.047 |      | 2.15874135 |
| 15/12/2010 | 21/12/2010 | 2.29 | 6.8  | 0.049 | 6.28 | 2.13823506 |
| 17/12/2010 | 21/12/2010 | 2.15 | 7.15 | 0.048 |      | 2.23244538 |
| 21/12/2010 | 5/1/2011   | 2.40 | 6.54 | 0.04  |      | 1.66459348 |
| 22/12/2010 | 5/1/2011   | 2.62 | 6.58 | 0.045 | 6.79 | 1.72022222 |
| 24/12/2010 | 5/1/2011   | 2.70 | 7.28 | 0.049 |      | 1.81591338 |
| 27/12/2010 | 11/1/2011  | 2.84 | 7.2  | 0.052 |      | 1.83092074 |
| 29/12/2010 | 11/1/2011  | 2.60 | 6.91 | 0.049 | 6.28 | 1.88558566 |
| 31/12/2010 | 11/1/2011  | 2.45 | 6.9  | 0.044 |      | 1.79614629 |
| 5/1/2011   | 13/1/2011  | 2.28 | 6.62 | 0.043 | 5.3  | 1.88219944 |
| 7/1/2011   | 13/1/2011  | 3.09 | 6.52 | 0.049 |      | 1.58749171 |
| 10/1/2011  | 19/1/2011  | 2.78 | 6.51 | 0.039 |      | 1.4031445  |
| 12/1/2011  | 19/1/2011  | 2.50 | 6.61 | 0.043 | 6.23 | 1.71829078 |

|           |           |      |      |       |      |            |
|-----------|-----------|------|------|-------|------|------------|
| 14/1/2011 | 19/1/2011 | 2.91 | 6.58 | 0.042 |      | 1.445364   |
| 17/1/2011 | 27/1/2011 | 2.47 | 6.53 | 0.039 |      | 1.58093371 |
| 19/1/2011 | 27/1/2011 | 2.28 | 6.64 | 0.039 | 6.26 | 1.71155505 |
| 21/1/2011 | 27/1/2011 | 2.05 | 6.67 | 0.038 |      | 1.85517444 |
| 24/1/2011 | 9/2/2011  | 2.28 | 6.68 | 0.034 |      | 1.4929698  |
| 26/1/2011 | 9/2/2011  | 2.23 | 6.69 | 0.033 | 6.23 | 1.47835712 |
| 28/1/2011 | 9/2/2011  | 2.42 | 6.81 | 0.035 |      | 1.4461515  |
| 31/1/2011 | 11/2/2011 | 2.80 | 7.06 | 0.036 |      | 1.28507501 |
| 2/2/2011  | 11/2/2011 | 2.58 | 7.09 | 0.038 | 5.2  | 1.47147898 |
| 4/2/2011  | 11/2/2011 | 3.63 | 6.92 | 0.039 |      | 1.07414365 |
| 7/2/2011  | 18/2/2011 | 2.73 | 7.16 | 0.04  |      | 1.46536427 |
| 9/2/2011  | 18/2/2011 | 2.53 | 7.13 | 0.041 | 5.72 | 1.62182332 |
| 11/2/2011 | 18/2/2011 | 3.14 | 7.04 | 0.039 |      | 1.24193004 |
| 14/2/2011 | 9/3/2011  | 2.28 | 7.11 | 0.033 |      | 1.44736842 |
| 16/2/2011 | 9/3/2011  | 2.09 | 7.06 | 0.039 | 6.26 | 1.86602871 |
| 18/2/2011 | 9/3/2011  | 2.37 | 6.93 | 0.033 |      | 1.39240506 |
| 21/2/2011 | 11/3/2011 | 1.96 | 6.92 | 0.033 |      | 1.68367347 |
| 23/2/2011 | 11/3/2011 | 1.84 | 6.57 | 0.03  | 6.08 | 1.63043478 |
| 25/2/2011 | 11/3/2011 | 1.76 | 6.58 | 0.028 |      | 1.59090909 |
| 28/2/2011 | 15/3/2011 | 2.69 | 6.7  | 0.024 |      | 0.89219331 |
| 2/3/2011  | 15/3/2011 | 1.53 | 6.51 | 0.017 | 6.37 | 1.11111111 |
| 4/3/2011  | 15/3/2011 | 1.54 | 6.3  | 0.015 |      | 0.97402597 |
| 7/3/2011  | 16/3/2011 | 1.49 | 6.38 | 0.029 |      | 1.94630872 |
| 9/3/2011  | 16/3/2011 | 1.47 | 6.23 | 0.03  | 6.57 | 2.04081633 |
| 11/3/2011 | 16/3/2011 | 1.75 | 6.8  | 0.03  |      | 1.71428571 |
| 15/3/2011 | 25/3/2011 | 1.63 | 6.56 | 0.021 |      | 1.28834356 |
| 16/3/2011 | 25/3/2011 | 1.49 | 6.34 | 0.024 | 7.42 | 1.61073826 |
| 18/3/2011 | 25/3/2011 | 2.07 | 6.2  | 0.023 |      | 1.11111111 |
| 21/3/2011 | 31/3/2011 | 1.56 | 6.91 | 0.03  |      | 1.92307692 |
| 23/3/2011 | 31/3/2011 | 1.65 | 6.81 | 0.032 | 6.77 | 1.93939394 |
| 25/3/2011 | 31/3/2011 | 1.53 | 6.73 | 0.022 |      | 1.4379085  |
| 28/3/2011 | 8/4/2011  | 2.44 | 7.03 | 0.031 |      | 1.2704918  |
| 30/3/2011 | 8/4/2011  | 1.60 | 6.87 | 0.031 | 7.1  | 1.9375     |
| 1/4/2011  | 8/4/2011  | 2.14 | 6.87 | 0.037 |      | 1.72897196 |
| 4/4/2011  | 15/4/2011 | 2.07 | 6.4  | 0.036 |      | 1.73913043 |
| 6/4/2011  | 15/4/2011 | 1.45 | 6.66 | 0.032 | 7.17 | 2.20689655 |
| 8/4/2011  | 15/4/2011 | 1.81 | 6.62 | 0.038 |      | 2.09944751 |
| 11/4/2011 | 25/4/2011 | 2.08 | 6.82 | 0.042 |      | 2.01923077 |
| 14/4/2011 | 25/4/2011 | 2.56 | 6.72 | 0.042 | 7.42 | 1.640625   |
| 15/4/2011 | 25/4/2011 | 2.05 | 6.68 | 0.04  |      | 1.95121951 |
| 18/4/2011 | 3/5/2011  | 2.63 | 6.99 | 0.041 |      | 1.55893536 |
| 20/4/2011 | 3/5/2011  | 2.50 | 6.71 | 0.038 | 6.98 | 1.52       |
| 22/4/2011 | 3/5/2011  | 2.29 | 6.68 | 0.042 |      | 1.83406114 |
| 25/4/2011 | 10/5/2011 | 2.05 | 6.75 | 0.04  |      | 1.95121951 |
| 27/4/2011 | 10/5/2011 | 2.03 | 6.64 | 0.043 | 6.88 | 2.1182266  |
| 29/4/2011 | 10/5/2011 | 1.79 | 6.52 | 0.041 |      | 2.29050279 |
| 2/5/2011  | 12/5/2011 | 2.03 | 6.66 | 0.042 |      | 2.06896552 |
| 4/5/2011  | 12/5/2011 | 2.11 | 6.68 | 0.04  | 6.1  | 1.8957346  |
| 6/5/2011  | 12/5/2011 | 2.28 | 6.62 | 0.046 |      | 2.01754386 |
| 9/5/2011  | 19/5/2011 | 2.68 | 6.97 | 0.05  |      | 1.86567164 |
| 11/5/2011 | 19/5/2011 | 2.52 | 6.87 | 0.047 | 6.3  | 1.86507937 |
| 13/5/2011 | 19/5/2011 | 1.98 | 6.85 | 0.044 |      | 2.22222222 |
| 16/5/2011 | 3/6/2011  | 2.71 | 7.4  | 0.045 |      | 1.66051661 |
| 18/5/2011 | 3/6/2011  | 2.97 | 7.23 | 0.06  | 4.89 | 2.02020202 |
| 20/5/2011 | 3/6/2011  | 2.40 | 7.01 | 0.047 |      | 1.95833333 |
| 23/5/2011 | 9/6/2011  | 2.71 | 7.06 | 0.052 |      | 1.91881919 |
| 25/5/2011 | 9/6/2011  | 2.72 | 6.94 | 0.055 | 6.21 | 2.02205882 |
| 27/5/2011 | 9/6/2011  | 2.32 | 7.03 | 0.048 |      | 2.06896552 |

|            |            |      |      |       |      |            |
|------------|------------|------|------|-------|------|------------|
| 1/6/2011   | 10/6/2011  | 2.98 | 7.41 | 0.06  | 5.88 | 2.01342282 |
| 3/6/2011   | 10/6/2011  | 2.65 | 7.16 | 0.057 |      | 2.1509434  |
| 8/6/2011   | 17/6/2011  | 3.49 | 6.87 | 0.061 | 5.13 | 1.747851   |
| 10/6/2011  | 17/6/2011  | 3.29 | 6.87 | 0.058 |      | 1.76291793 |
| 15/6/2011  | 21/6/2011  | 3.91 | 7.35 | 0.06  | 4.88 | 1.53452685 |
| 17/6/2011  | 21/6/2011  | 3.17 | 7.09 | 0.059 |      | 1.86119874 |
| 20/6/2011  | 30/6/2011  | 2.57 | 7.19 | 0.052 |      | 2.0233463  |
| 22/6/2011  | 30/6/2011  | 2.27 | 6.95 | 0.053 | 5.75 | 2.33480176 |
| 24/6/2011  | 30/6/2011  | 2.37 | 6.88 | 0.046 |      | 1.94092827 |
| 30/6/2011  | 12/7/2011  | 2.17 | 7.2  | 0.052 | 6.33 | 2.39631336 |
| 1/7/2011   | 12/7/2011  | 2.37 | 7    | 0.057 |      | 2.40506329 |
| 6/7/2011   | 14/7/2011  | 2.24 | 7.25 | 0.053 | 5.11 | 2.36607143 |
| 9/7/2011   | 14/7/2011  | 2.00 | 7.1  | 0.047 |      | 2.35       |
| 11/7/2011  | 20/7/2011  | 2.05 | 7.34 | 0.048 |      | 2.34146341 |
| 13/7/2011  | 20/7/2011  | 2.29 | 7.04 | 0.048 | 6.23 | 2.09606987 |
| 15/7/2011  | 20/7/2011  | 2.38 | 6.88 | 0.047 |      | 1.97478992 |
| 18/7/2011  | 25/7/2011  | 2.25 | 7.13 | 0.043 |      | 1.91111111 |
| 20/7/2011  | 25/7/2011  | 2.33 | 6.76 | 0.049 | 5.69 | 2.10300429 |
| 25/7/2011  | 17/8/2011  | 2.26 | 6.38 | 0.041 |      | 1.81415929 |
| 27/7/2011  | 17/8/2011  | 2.35 | 6.36 | 0.038 | 6.86 | 1.61702128 |
| 3/8/2011   | 17/8/2011  | 2.61 | 6.31 | 0.039 | 6.93 | 1.49425287 |
| 8/8/2011   | 17/8/2011  | 2.77 | 6.41 | 0.04  |      | 1.44404332 |
| 10/8/2011  | 17/8/2011  | 2.81 | 6.41 | 0.043 | 5.92 | 1.53024911 |
| 17/8/2011  | 25/8/2011  | 2.24 | 6.89 | 0.041 |      | 1.83035714 |
| 20/8/2011  | 25/8/2011  | 2.21 | 6.86 | 0.043 |      | 1.94570136 |
| 22/8/2011  | 25/8/2011  | 2.38 | 6.63 | 0.044 | 5.82 | 1.8487395  |
| 24/8/2011  | 31/8/2011  | 2.30 | 6.91 | 0.039 |      | 1.69565217 |
| 26/8/2011  | 31/8/2011  | 2.39 | 6.84 | 0.043 |      | 1.79916318 |
| 29/8/2011  | 31/8/2011  | 2.34 | 6.62 | 0.042 | 5.43 | 1.79487179 |
| 31/8/2011  | 6/9/2011   | 2.72 | 6.98 | 0.039 |      | 1.43382353 |
| 2/9/2011   | 7/9/2011   | 2.86 | 6.7  | 0.04  |      | 1.3986014  |
| 5/9/2011   | 7/9/2011   | 2.53 | 6.53 | 0.043 | 5.78 | 1.69960474 |
| 8/9/2011   | 13/9/2011  | 2.53 | 6.72 | 0.041 |      | 1.62055336 |
| 9/9/2011   | 13/9/2011  | 2.97 | 6.64 | 0.046 |      | 1.54882155 |
| 12/9/2011  | 13/9/2011  | 3.03 | 6.39 | 0.046 | 8.28 | 1.51815182 |
| 14/9/2011  | 20/9/2011  | 3.31 | 6.91 | 0.038 |      | 1.14803625 |
| 16/9/2011  | 20/9/2011  | 4.01 | 6.69 | 0.049 |      | 1.22194514 |
| 19/9/2011  | 20/9/2011  | 4.24 | 6.58 | 0.05  | 7.56 | 1.17924528 |
| 21/9/2011  | 27/9/2011  | 3.38 | 7.15 | 0.057 |      | 1.68639053 |
| 23/9/2011  | 27/9/2011  | 3.08 | 6.93 | 0.053 |      | 1.72077922 |
| 26/9/2011  | 28/9/2011  | 2.91 | 6.67 | 0.057 | 5.67 | 1.95876289 |
| 28/9/2011  | 4/10/2011  | 3.25 | 7.12 | 0.057 |      | 1.75384615 |
| 30/9/2011  | 4/10/2011  | 3.25 | 6.63 | 0.048 |      | 1.47692308 |
| 3/10/2011  | 4/10/2011  | 3.21 | 6.36 | 0.048 | 6.47 | 1.4953271  |
| 5/10/2011  | 11/10/2011 | 3.38 | 7.09 | 0.059 |      | 1.74556213 |
| 7/10/2011  | 24/10/2011 | 3.77 | 6.81 | 0.067 |      | 1.77718833 |
| 10/10/2011 | 24/10/2011 | 3.98 | 6.7  | 0.064 | 5.51 | 1.6080402  |
| 12/10/2011 | 25/10/2011 | 3.97 | 7.22 | 0.056 |      | 1.41057935 |
| 14/10/2011 | 25/10/2011 | 3.65 | 6.95 | 0.052 |      | 1.42465753 |
| 17/10/2011 | 25/10/2011 | 3.69 | 6.81 | 0.055 | 5.24 | 1.49051491 |
| 19/10/2011 | 27/10/2011 | 3.56 | 7.09 | 0.057 |      | 1.6011236  |
| 21/10/2011 | 27/10/2011 | 3.79 | 6.91 | 0.058 |      | 1.53034301 |
| 24/10/2011 | 27/10/2011 | 3.46 | 6.77 | 0.058 | 5.29 | 1.67630058 |
| 26/10/2011 | 1/11/2011  | 3.44 | 6.81 | 0.056 |      | 1.62790698 |
| 28/10/2011 | 1/11/2011  | 3.72 | 6.67 | 0.058 |      | 1.55913978 |
| 31/10/2011 | 1/11/2011  | 3.44 | 6.59 | 0.057 | 5.71 | 1.65697674 |
| 2/11/2011  | 11/11/2011 | 3.78 | 7.2  | 0.06  |      | 1.58730159 |
| 4/11/2011  | 11/11/2011 | 3.32 | 6.85 | 0.053 |      | 1.59638554 |

|            |            |      |      |       |      |            |
|------------|------------|------|------|-------|------|------------|
| 7/11/2011  | 11/11/2011 | 3.17 | 6.75 | 0.053 | 6.23 | 1.67192429 |
| 14/11/2011 | 23/11/2011 | 3.39 | 6.99 | 0.048 | 5.63 | 1.4159292  |
| 21/11/2011 | 23/11/2011 | 2.87 | 6.52 | 0.041 | 5.98 | 1.42857143 |
| 23/11/2011 | 30/11/2011 | 3.51 | 6.87 | 0.045 |      | 1.28205128 |
| 25/11/2011 | 30/11/2011 | 3.55 | 6.61 | 0.046 |      | 1.29577465 |
| 28/11/2011 | 30/11/2011 | 3.50 | 6.61 | 0.046 | 6.15 | 1.31428571 |
| 30/11/2011 | 8/12/2011  | 2.84 | 6.99 | 0.045 |      | 1.58450704 |
| 2/12/2011  | 8/12/2011  | 2.79 | 6.83 | 0.044 |      | 1.57706093 |
| 5/12/2011  | 8/12/2011  | 2.74 | 6.75 | 0.044 | 6.11 | 1.60583942 |
| 7/12/2011  | 15/12/2011 | 3.08 | 7.03 | 0.05  |      | 1.62337662 |
| 9/12/2011  | 15/12/2011 | 2.87 | 6.8  | 0.048 |      | 1.67247387 |
| 12/12/2011 | 15/12/2011 | 2.73 | 6.72 | 0.052 | 6.44 | 1.9047619  |
| 14/12/2011 | 22/12/2011 | 2.55 | 7.18 | 0.039 |      | 1.52941176 |
| 16/12/2011 | 22/12/2011 | 2.58 | 7    | 0.037 |      | 1.43410853 |
| 19/12/2011 | 22/12/2011 | 2.44 | 6.99 | 0.04  | 6.65 | 1.63934426 |
| 26/12/2011 | 11/1/2012  | 2.38 | 6.9  | 0.041 | 5.43 | 1.72268908 |
| 2/1/2012   | 11/1/2012  | 2.20 | 6.84 | 0.041 | 5.64 | 1.86363636 |
| 11/1/2012  | 18/1/2012  | 2.22 | 7.38 | 0.036 |      | 1.62162162 |
| 13/1/2012  | 18/1/2012  | 2.06 | 7.12 | 0.033 |      | 1.60194175 |
| 18/1/2012  | 25/1/2012  | 2.35 | 7.22 | 0.037 |      | 1.57446809 |
| 20/1/2012  | 25/1/2012  | 2.21 | 7.04 | 0.04  |      | 1.80995475 |
| 24/1/2012  | 25/1/2012  | 2.02 | 6.96 | 0.039 |      | 1.93069307 |
| 25/1/2012  | 1/2/2012   | 2.02 | 7.16 | 0.037 |      | 1.83168317 |
| 27/1/2012  | 1/2/2012   | 1.90 | 6.93 | 0.033 |      | 1.73684211 |
| 30/1/2012  | 1/2/2012   | 1.76 | 6.88 | 0.031 | 8.04 | 1.76136364 |
| 1/2/2012   | 8/2/2012   | 2.09 | 7.27 | 0.032 |      | 1.53110048 |
| 3/2/2012   | 8/2/2012   | 2.25 | 7.1  | 0.034 |      | 1.51111111 |
| 6/2/2012   | 8/2/2012   | 1.96 | 6.95 | 0.032 |      | 1.63265306 |
| 8/2/2012   | 15/2/2012  | 1.85 | 7.35 | 0.032 |      | 1.72972973 |
| 10/2/2012  | 15/2/2012  | 1.77 | 7.14 | 0.034 |      | 1.92090395 |
| 13/2/2012  | 15/2/2012  | 2.26 | 7.11 | 0.032 |      | 1.4159292  |
| 15/2/2012  | 23/2/2012  | 1.74 | 7.49 | 0.034 |      | 1.95402299 |
| 17/2/2012  | 23/2/2012  | 1.75 | 7.24 | 0.033 |      | 1.88571429 |
| 20/2/2012  | 23/2/2012  | 1.96 | 7.14 | 0.034 | 7.63 | 1.73469388 |
| 22/2/2012  | 29/2/2012  | 2.16 | 7.31 | 0.034 |      | 1.57407407 |
| 24/2/2012  | 29/2/2012  | 1.95 | 7.13 | 0.035 |      | 1.79487179 |
| 27/2/2012  | 29/2/2012  | 1.92 | 7.08 | 0.037 |      | 1.92708333 |
| 29/2/2012  | 7/3/2012   | 2.13 | 7.38 | 0.038 |      | 1.78403756 |
| 5/3/2012   | 7/3/2012   | 2.06 | 7.17 | 0.038 | 7.54 | 1.84466019 |
| 7/3/2012   | 14/3/2012  | 1.84 | 7.04 | 0.037 |      | 2.01086957 |
| 9/3/2012   | 14/3/2012  | 1.78 | 6.97 | 0.035 |      | 1.96629213 |
| 12/3/2012  | 14/3/2012  | 1.88 | 6.84 | 0.026 |      | 1.38297872 |
| 14/3/2012  | 22/3/2012  | 2.14 | 7.26 | 0.034 |      | 1.58878505 |
| 16/3/2012  | 22/3/2012  | 2.29 | 6.99 | 0.034 |      | 1.48471616 |
| 19/3/2012  | 22/3/2012  | 2.42 | 6.96 | 0.039 | 6.68 | 1.61157025 |
| 21/3/2012  | 28/3/2012  | 2.19 | 7.08 | 0.03  |      | 1.36986301 |
| 23/3/2012  | 28/3/2012  | 2.09 | 6.9  | 0.033 |      | 1.57894737 |
| 26/3/2012  | 28/3/2012  | 2.57 | 6.89 | 0.04  |      | 1.55642023 |
| 28/3/2012  | 4/4/2012   | 3.42 | 6.37 | 0.053 |      | 1.5497076  |
| 30/3/2012  | 4/4/2012   | 3.00 | 6.55 | 0.051 |      | 1.7        |
| 2/4/2012   | 4/4/2012   | 3.10 | 6.71 | 0.052 | 5.45 | 1.67741935 |
| 4/4/2012   | 15/4/2012  | 2.99 | 7.34 | 0.049 |      | 1.63879599 |
| 6/4/2012   | 15/4/2012  | 3.12 | 7.57 | 0.056 |      | 1.79487179 |
| 9/4/2012   | 15/4/2012  | 2.94 | 7.23 | 0.047 |      | 1.59863946 |
| 11/4/2012  | 18/4/2012  | 2.77 | 7.31 | 0.04  |      | 1.44404332 |
| 13/4/2012  | 18/4/2012  | 2.73 | 7    | 0.039 |      | 1.42857143 |
| 16/4/2012  | 18/4/2012  | 2.84 | 7.03 | 0.042 | 5.4  | 1.47887324 |
| 18/4/2012  | 26/4/2012  | 2.84 | 7.38 | 0.042 |      | 1.47887324 |

|           |           |      |      |       |      |            |
|-----------|-----------|------|------|-------|------|------------|
| 20/4/2012 | 26/4/2012 | 2.72 | 7.16 | 0.041 |      | 1.50735294 |
| 23/4/2012 | 26/4/2012 | 2.58 | 7.05 | 0.04  |      | 1.5503876  |
| 25/4/2012 | 3/5/2012  | 2.76 | 7.42 | 0.046 | 5.98 | 1.66666667 |
| 30/4/2012 | 3/5/2012  | 2.96 | 7.31 | 0.047 |      | 1.58783784 |
| 2/5/2012  | 3/5/2012  | 2.79 | 7.37 | 0.048 |      | 1.72043011 |
| 4/5/2012  | 9/5/2012  | 2.80 | 7.14 | 0.044 |      | 1.57142857 |
| 7/5/2012  | 9/5/2012  | 2.52 | 7.1  | 0.042 |      | 1.66666667 |
| 10/5/2012 | 16/5/2012 | 2.71 | 7.44 | 0.027 |      | 0.99630996 |
| 11/5/2012 | 16/5/2012 | 2.86 | 7.25 | 0.031 |      | 1.08391608 |
| 15/5/2012 | 16/5/2012 | 3.42 | 7.39 | 0.052 | 5.29 | 1.52046784 |
| 16/5/2012 | 23/5/2012 | 3.45 | 7.09 | 0.059 |      | 1.71014493 |
| 18/5/2012 | 23/5/2012 | 3.28 | 6.96 | 0.057 |      | 1.73780488 |
| 21/5/2012 | 23/5/2012 | 3.33 | 6.97 | 0.061 |      | 1.83183183 |
| 23/5/2012 | 30/5/2012 | 3.79 | 7.07 | 0.047 |      | 1.24010554 |
| 25/5/2012 | 30/5/2012 | 3.56 | 7.02 | 0.047 |      | 1.32022472 |
| 28/5/2012 | 30/5/2012 | 3.65 | 6.94 | 0.043 | 6.44 | 1.17808219 |
| 30/5/2012 | 6/6/2012  | 3.67 | 7.1  | 0.049 |      | 1.33514986 |
| 1/6/2012  | 6/6/2012  | 3.49 | 7.02 | 0.045 |      | 1.28939828 |
| 4/6/2012  | 6/6/2012  | 3.52 | 7.02 | 0.047 |      | 1.33522727 |
| 6/6/2012  | 20/6/2012 | 3.30 | 7.21 | 0.043 |      | 1.3030303  |
| 8/6/2012  | 20/6/2012 | 3.48 | 7.08 | 0.043 |      | 1.23563218 |
| 11/6/2012 | 20/6/2012 | 3.16 | 7.07 | 0.045 | 5.66 | 1.42405063 |
| 20/6/2012 | 11/7/2012 | 3.14 | 7.39 | 0.036 |      | 1.14649682 |
| 22/6/2012 | 11/7/2012 | 2.69 | 7.2  | 0.052 |      | 1.9330855  |
| 25/6/2012 | 11/7/2012 | 2.75 | 7.09 | 0.043 | 5.61 | 1.56363636 |
| 27/6/2012 | 11/7/2012 | 2.70 | 7.38 | 0.047 |      | 1.74074074 |
| 29/6/2012 | 11/7/2012 | 2.95 | 7.21 | 0.045 |      | 1.52542373 |
| 1/7/2012  | 11/7/2012 | 2.75 | 7.11 | 0.045 |      | 1.63636364 |
| 4/7/2012  | 12/7/2012 | 2.72 | 7.54 | 0.045 |      | 1.65441176 |
| 6/7/2012  | 12/7/2012 | 2.81 | 7.36 | 0.041 |      | 1.45907473 |
| 9/7/2012  | 12/7/2012 | 2.69 | 7.2  | 0.042 | 5.55 | 1.56133829 |
| 11/7/2012 | 28/8/2012 | 3.04 | 7.41 | 0.04  |      | 1.31578947 |
| 13/7/2012 | 28/8/2012 | 3.58 | 7.19 | 0.028 |      | 0.78212291 |
| 18/7/2012 | 28/8/2012 | 3.57 | 7.33 | 0.039 |      | 1.09243697 |
| 20/7/2012 | 28/8/2012 | 3.21 | 7.17 | 0.041 |      | 1.27725857 |
| 23/7/2012 | 28/8/2012 | 3.02 | 7.45 | 0.064 | 5.15 | 2.1192053  |
| 25/7/2012 | 29/8/2012 | 3.14 | 7.42 | 0.063 |      | 2.00636943 |
| 27/7/2012 | 29/8/2012 | 2.65 | 7.31 | 0.076 |      | 2.86792453 |
| 30/7/2012 | 29/8/2012 | 3.24 | 7.2  | 0.06  |      | 1.85185185 |
| 1/8/2012  | 29/8/2012 | 2.86 | 7.41 | 0.042 |      | 1.46853147 |
| 3/8/2012  | 29/8/2012 | 2.61 | 7.15 | 0.043 |      | 1.64750958 |
| 6/8/2012  | 29/8/2012 | 2.89 | 7.05 | 0.043 | 4.92 | 1.48788927 |
| 6/8/2012  | 29/8/2012 | 2.89 | 7.05 | 0.043 | 4.92 | 1.48788927 |
| 8/8/2012  |           |      | 7.28 | 0.04  |      | #DIV/0!    |
| 10/8/2012 |           |      | 7.09 | 0.041 |      | #DIV/0!    |
| 15/8/2012 |           |      | 7.3  | 0.036 |      | #DIV/0!    |
| 17/8/2012 |           | 2.81 | 7.12 | 0.038 | 6.56 | 1.35231317 |
| 22/8/2012 |           |      | 7.19 | 0.031 |      | #DIV/0!    |
| 24/8/2012 |           |      | 6.99 | 0.036 |      | #DIV/0!    |
| 27/8/2012 |           | 2.37 | 6.91 | 0.031 |      | 1.30801688 |
| 29/8/2012 |           |      | 7.35 | 0.027 |      | #DIV/0!    |
| 5/9/2012  |           | 2.86 | 7.2  | 0.028 |      | 0.97902098 |
| 7/9/2012  |           |      | 7.04 | 0.024 |      | #DIV/0!    |
| 10/9/2012 |           | 2.70 | 6.91 | 0.02  |      | 0.74074074 |
| 12/9/2012 |           |      | 7.15 | 0.04  |      | #DIV/0!    |
| 17/9/2012 |           | 2.99 | 7.03 | 0.044 | 6.13 | 1.47157191 |
| 19/9/2012 |           | 2.73 | 7.21 | 0.046 |      | 1.68498168 |
| 21/9/2012 |           | 2.77 | 6.94 | 0.046 |      | 1.66064982 |

|            |      |      |       |      |            |
|------------|------|------|-------|------|------------|
| 24/9/2012  | 2.78 | 6.86 | 0.046 |      | 1.65467626 |
| 26/9/2012  | 2.87 | 7.41 | 0.044 |      | 1.53310105 |
| 28/9/2012  | 2.80 | 7.26 | 0.046 |      | 1.64285714 |
| 1/10/2012  | 2.92 | 7.13 | 0.047 | 5.71 | 1.60958904 |
| 3/10/2012  | 2.71 | 7.29 | 0.032 |      | 1.18081181 |
| 5/10/2012  | 2.81 | 7.06 | 0.031 |      | 1.10320285 |
| 8/10/2012  | 2.64 | 6.9  | 0.037 |      | 1.40151515 |
| 10/10/2012 | 3.02 | 7.33 | 0.05  |      | 1.65562914 |
| 12/10/2012 | 2.93 | 7.29 | 0.048 |      | 1.63822526 |
| 15/10/2012 | 3.15 | 7.2  | 0.06  | 4.85 | 1.9047619  |
| 17/10/2012 | 3.12 | 7.32 | 0.062 |      | 1.98717949 |
| 19/10/2012 | 3.36 | 6.91 | 0.059 |      | 1.75595238 |
| 22/10/2012 | 3.18 | 6.51 | 0.059 |      | 1.85534591 |
| 26/10/2012 | 6.73 | 6.9  | 0.062 |      | 0.92124814 |
| 30/10/2012 | 3.56 | 6.95 | 0.061 | 4.01 | 1.71348315 |
| 31/10/2012 | 3.53 | 6.96 | 0.062 |      | 1.75637394 |
| 2/11/2012  | 3.72 | 6.93 | 0.054 |      | 1.4516129  |
| 5/11/2012  | 4.91 | 7.01 | 0.047 |      | 0.95723014 |
| 7/11/2012  | 4.24 | 6.86 | 0.038 |      | 0.89622642 |
| 9/11/2012  | 5.11 | 6.84 | 0.043 | 8.63 | 0.84148728 |
| 14/11/2012 | 2.86 |      | 0.034 |      | 1.18881119 |
| 16/11/2012 | 3.49 |      | 0.045 |      | 1.28939828 |
| 19/11/2012 | 2.64 |      | 0.047 |      | 1.78030303 |
| 21/11/2012 | 2.76 |      | 0.057 |      | 2.06521739 |
| 24/11/2012 | 2.67 |      | 0.045 |      | 1.68539326 |
| 28/11/2012 | 2.88 |      | 0.044 |      | 1.52777778 |
| 30/11/2012 | 3.00 |      | 0.041 |      | 1.36666667 |
| 3/12/2012  | 2.96 |      | 0.033 |      | 1.11486486 |
| 5/12/2012  | 3.16 | 7.27 | 0.04  |      | 1.26582278 |
| 7/12/2012  | 3.36 | 7.28 | 0.037 |      | 1.10119048 |
| 10/12/2012 | 3.01 | 7.17 | 0.035 | 8    | 1.1627907  |
| 12/12/2012 | 2.80 | 7.02 | 0.039 |      | 1.39285714 |
| 14/12/2012 | 3.02 | 6.94 | 0.051 |      | 1.68874172 |
| 17/12/2012 | 2.86 | 6.84 | 0.048 |      | 1.67832168 |

Table S5. Alum Water Fluorescence Data.

| Date       | Fmax C1  | C2       | C3       |
|------------|----------|----------|----------|
| 13/11/2009 | 0.239459 | 0.144992 | 0.152642 |
| 16/11/2009 | 0.247446 | 0.147571 | 0.145841 |
| 18/11/2009 | 0.254961 | 0.159881 | 0.156404 |
| 20/11/2009 | 0.247049 | 0.154401 | 0.138265 |
| 23/11/2009 | 0.233427 | 0.150292 | 0.141752 |
| 25/11/2009 | 0.226579 | 0.140649 | 0.143702 |
| 30/11/2009 | 0.264581 | 0.14286  | 0.171477 |
| 2/12/2009  | 0.32744  | 0.18698  | 0.212324 |
| 4/12/2009  | 0.308177 | 0.179393 | 0.199216 |
| 9/12/2009  | 0.338589 | 0.194763 | 0.1585   |
| 11/12/2009 | 0.33626  | 0.19075  | 0.154577 |
| 14/12/2009 | 0.335156 | 0.199825 | 0.225511 |
| 16/12/2009 | 0.332408 | 0.201045 | 0.238395 |
| 18/12/2009 | 0.347593 | 0.205414 | 0.220908 |
| 23/12/2009 | 0.340877 | 0.194449 | 0.196185 |
| 28/12/2009 | 0.297609 | 0.178933 | 0.17922  |
| 30/12/2009 | 0.290398 | 0.166193 | 0.163125 |
| 6/1/2010   | 0.317521 | 0.171798 | 0.103762 |

|            |          |          |          |
|------------|----------|----------|----------|
| 8/1/2010   | 0.315853 | 0.180793 | 0.139969 |
| 11/1/2010  | 0.277731 | 0.166694 | 0.172405 |
| 13/1/2010  | 0.28915  | 0.176204 | 0.185238 |
| 16/1/2010  | 0.298718 | 0.185508 | 0.184375 |
| 20/1/2010  | 0.291795 | 0.184413 | 0.140781 |
| 22/1/2010  | 0.289812 | 0.157582 | 0.141506 |
| 25/1/2010  | 0.251252 | 0.137781 | 0.13435  |
| 27/1/2010  | 0.253512 | 0.138417 | 0.147944 |
| 8/2/2010   | 0.263551 | 0.144724 | 0.181337 |
| 10/2/2010  | 0.289363 | 0.165085 | 0.205364 |
| 15/2/2010  | 0.255162 | 0.173119 | 0.056557 |
| 17/2/2010  | 0.2737   | 0.167764 | 0.060893 |
| 19/2/2010  | 0.279076 | 0.176546 | 0.135988 |
| 22/2/2010  | 0.272481 | 0.149845 | 0.103421 |
| 24/2/2010  | 0.267415 | 0.147378 | 0.12304  |
| 1/3/2010   | 0.281629 | 0.16883  | 0.211475 |
| 3/3/2010   | 0.264632 | 0.164027 | 0.234306 |
| 8/3/2010   | 0.292721 | 0.167208 | 0.218515 |
| 10/3/2010  | 0.303359 | 0.169537 | 0.192966 |
| 17/3/2010  | 0.214797 | 0.139754 | 0.159718 |
| 31/3/2010  | 0.273625 | 0.162251 | 0.037229 |
| 14/4/2010  | 0.320867 | 0.193237 | 0.287992 |
| 21/4/2010  | 0.314772 | 0.192752 | 0.281503 |
| 28/4/2010  | 0.29156  | 0.189124 | 0.405232 |
| 26/5/2010  | 0.441048 | 0.302678 | 0.350378 |
| 2/6/2010   | 0.381582 | 0.226355 | 0.280923 |
| 9/6/2010   | 0.436391 | 0.245228 | 0.260717 |
| 17/6/2010  | 0.393041 | 0.221452 | 0.289942 |
| 30/6/2010  | 0.368702 | 0.195076 | 0.276283 |
| 7/7/2010   | 0.388252 | 0.212056 | 0.322545 |
| 14/7/2010  | 0.352222 | 0.196702 | 0.205443 |
| 28/7/2010  | 0.327756 | 0.178783 | 0.234262 |
| 11/8/2010  | 0.303376 | 0.157502 | 0.125034 |
| 18/8/2010  | 0.285189 | 0.155103 | 0.282344 |
| 13/9/2010  | 0.301375 | 0.157774 | 0.125809 |
| 15/9/2010  | 0.308723 | 0.162251 | 0.04047  |
| 17/9/2010  | 0.314537 | 0.158092 | 0.070021 |
| 20/9/2010  | 0.252488 | 0.138956 | 0.186593 |
| 22/9/2010  | 0.25388  | 0.114026 | 0.149009 |
| 24/9/2010  | 0.273689 | 0.147186 | 0.183302 |
| 27/9/2010  | 0.259791 | 0.146095 | 0.203044 |
| 29/9/2010  | 0.273936 | 0.149803 | 0.246652 |
| 1/10/2010  | 0.281756 | 0.168212 | 0.254656 |
| 4/10/2010  | 0.254472 | 0.143186 | 0.2755   |
| 6/10/2010  | 0.274425 | 0.138651 | 0.349856 |
| 11/10/2010 | 0.270492 | 0.167735 | 0.276682 |
| 13/10/2010 | 0.276431 | 0.167714 | 0.24869  |
| 15/10/2010 | 0.314353 | 0.190775 | 0.214803 |
| 18/10/2010 | 0.277374 | 0.160976 | 0.199469 |
| 20/10/2010 | 0.294371 | 0.167501 | 0.206415 |
| 22/10/2010 | 0.294803 | 0.173934 | 0.274652 |
| 25/10/2010 | 0.287471 | 0.177027 | 0.231891 |

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| 27/10/2010 | 0.289283 | 0.188046 | 0.297852 |
| 29/10/2010 | 0.299334 | 0.186512 | 0.214557 |
| 1/11/2010  | 0.293032 | 0.168212 | 0.201362 |
| 3/11/2010  | 0.304704 | 0.180012 | 0.198454 |
| 5/11/2010  | 0.280313 | 0.17617  | 0.254279 |
| 8/11/2010  | 0.301858 | 0.166071 | 0.228984 |
| 10/11/2010 | 0.29812  | 0.169248 | 0.213977 |
| 12/11/2010 | 0.29942  | 0.158535 | 0.23113  |
| 15/11/2010 | 0.311966 | 0.169704 | 0.158739 |
| 17/11/2010 | 0.323978 | 0.173119 | 0.14703  |
| 19/11/2010 | 0.314703 | 0.156056 | 0.127027 |
| 22/11/2010 | 0.336162 | 0.177295 | 0.146697 |
| 23/11/2010 | 0.35619  | 0.18499  | 0.154744 |
| 24/11/2010 | 0.365637 | 0.19664  | 0.126737 |
| 29/11/2010 | 0.309592 | 0.195908 | 0.203348 |
| 1/12/2010  | 0.322173 | 0.205472 | 0.224272 |
| 3/12/2010  | 0.294849 | 0.198211 | 0.308749 |
| 6/12/2010  | 0.284688 | 0.188681 | 0.151148 |
| 8/12/2010  | 0.31115  | 0.215951 | 0.199513 |
| 10/12/2010 | 0.263615 | 0.171861 | 0.173014 |
| 13/12/2010 | 0.272332 | 0.177031 | 0.171818 |
| 15/12/2010 | 0.289748 | 0.188397 | 0.190088 |
| 21/12/2010 | 0.270388 | 0.147207 | 0.156731 |
| 22/12/2010 | 0.291721 | 0.164918 | 0.216108 |
| 24/12/2010 | 0.309833 | 0.178411 | 0.19786  |
| 27/12/2010 | 0.287172 | 0.175606 | 0.189377 |
| 29/12/2010 | 0.326123 | 0.205196 | 0.182751 |
| 31/12/2010 | 0.294113 | 0.177901 | 0.165249 |
| 5/1/2011   | 0.21831  | 0.153076 | 0.150764 |
| 7/1/2011   | 0.219092 | 0.140678 | 0.173652 |
| 10/1/2011  | 0.210916 | 0.125463 | 0.145225 |
| 12/1/2011  | 0.244755 | 0.161465 | 0.139998 |
| 14/1/2011  | 0.203015 | 0.124292 | 0.164481 |
| 17/1/2011  | 0.224998 | 0.136878 | 0.107663 |
| 19/1/2011  | 0.231593 | 0.140423 | 0.183911 |
| 21/1/2011  | 0.230414 | 0.152733 | 0.148321 |
| 24/1/2011  | 0.222818 | 0.136439 | 0.179249 |
| 26/1/2011  | 0.242437 | 0.144624 | 0.142281 |
| 28/1/2011  | 0.232036 | 0.142275 | 0.168323 |
| 31/1/2011  | 0.241293 | 0.150304 | 0.12557  |
| 2/2/2011   | 0.249102 | 0.150894 | 0.135619 |
| 4/2/2011   | 0.241684 | 0.159768 | 0.138635 |
| 7/2/2011   | 0.212733 | 0.128096 | 0.13986  |
| 9/2/2011   | 0.250154 | 0.157849 | 0.134089 |
| 11/2/2011  | 0.22674  | 0.145075 | 0.092822 |
| 14/2/2011  | 0.223566 | 0.135875 | 0.094903 |
| 16/2/2011  | 0.229356 | 0.128347 | 0.126353 |
| 18/2/2011  | 0.212468 | 0.116049 | 0.115565 |
| 21/2/2011  | 0.203406 | 0.124288 | 0        |
| 23/2/2011  | 0.208564 | 0.121876 | 0.013703 |
| 25/2/2011  | 0.176031 | 0.106778 | 0        |
| 28/2/2011  | 0.15736  | 0.072598 | 0        |

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|-----------|----------|----------|----------|
| 4/3/2011  | 0.128127 | 0.049863 | 0        |
| 7/3/2011  | 0.144227 | 0.067198 | 0.083506 |
| 9/3/2011  | 0.161449 | 0.080444 | 0.097179 |
| 11/3/2011 | 0.175634 | 0.096253 | 0.122242 |
| 15/3/2011 | 0.13528  | 0.0654   | 0.065388 |
| 16/3/2011 | 0.152663 | 0.072051 | 0.080664 |
| 18/3/2011 | 0.13363  | 0.072439 | 0.089596 |
| 23/3/2011 | 0.17936  | 0.102201 | 0.100028 |
| 25/3/2011 | 0.180309 | 0.10274  | 0.079554 |
| 28/3/2011 | 0.176496 | 0.109269 | 0.168693 |
| 30/3/2011 | 0.198536 | 0.106406 | 0.098484 |
| 1/4/2011  | 0.190158 | 0.112618 | 0.125432 |
| 4/4/2011  | 0.196087 | 0.123251 | 0.129623 |
| 6/4/2011  | 0.206103 | 0.112526 | 0.091002 |
| 8/4/2011  | 0.224262 | 0.133848 | 0.138316 |
| 11/4/2011 | 0.230081 | 0.136138 | 0.10229  |
| 14/4/2011 | 0.248596 | 0.151905 | 0.146958 |
| 15/4/2011 | 0.231156 | 0.139992 | 0.134734 |
| 18/4/2011 | 0.292244 | 0.180108 | 0.18228  |
| 20/4/2011 | 0.242466 | 0.145146 | 0.144413 |
| 22/4/2011 | 0.268652 | 0.161035 | 0.127281 |
| 25/4/2011 | 0.234813 | 0.15402  | 0.144261 |
| 27/4/2011 | 0.253063 | 0.173265 | 0.145906 |
| 29/4/2011 | 0.232496 | 0.167923 | 0.143122 |
| 2/5/2011  | 0.247607 | 0.173152 | 0.137866 |
| 4/5/2011  | 0.279927 | 0.191737 | 0.165518 |
| 6/5/2011  | 0.274499 | 0.184012 | 0.170419 |
| 9/5/2011  | 0.282043 | 0.213957 | 0.207263 |
| 11/5/2011 | 0.299345 | 0.204089 | 0.186796 |
| 13/5/2011 | 0.257261 | 0.165678 | 0.178662 |
| 16/5/2011 | 0.321345 | 0.202437 | 0.173449 |
| 18/5/2011 | 0.382622 | 0.27955  | 0.221328 |
| 20/5/2011 | 0.30057  | 0.212076 | 0.184824 |
| 23/5/2011 | 0.325502 | 0.232475 | 0.181801 |
| 25/5/2011 | 0.355695 | 0.252171 | 0.204124 |
| 27/5/2011 | 0.315572 | 0.222267 | 0.187065 |
| 3/6/2011  | 0.382318 | 0.262462 | 0.21323  |
| 8/6/2011  | 0.370162 | 0.269376 | 0.205675 |
| 10/6/2011 | 0.378436 | 0.240793 | 0.240765 |
| 15/6/2011 | 0.523854 | 0.344273 | 0.207053 |
| 17/6/2011 | 0.382237 | 0.244012 | 0.201804 |
| 20/6/2011 | 0.290375 | 0.186027 | 0.10374  |
| 22/6/2011 | 0.274459 | 0.187034 | 0.080062 |
| 24/6/2011 | 0.217735 | 0.154347 | 0.084557 |
| 30/6/2011 | 0.278484 | 0.169662 | 0.163053 |
| 1/7/2011  | 0.296378 | 0.191452 | 0.212802 |
| 6/7/2011  | 0.29551  | 0.190432 | 0.212672 |
| 9/7/2011  | 0.29068  | 0.165169 | 0.214709 |
| 11/7/2011 | 0.29421  | 0.191436 | 0.214049 |
| 13/7/2011 | 0.341326 | 0.213481 | 0.18813  |
| 15/7/2011 | 0.362285 | 0.230138 | 0.205451 |
| 18/7/2011 | 0.319706 | 0.206739 | 0.232065 |

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| 25/7/2011  | 0.246888 | 0.139035 | 0.104973 |
| 3/8/2011   | 0.292117 | 0.20235  | 0.12035  |
| 8/8/2011   | 0.290456 | 0.189078 | 0.127027 |
| 10/8/2011  | 0.298828 | 0.199946 | 0.152018 |
| 17/8/2011  | 0.25223  | 0.166243 | 0.120705 |
| 20/8/2011  | 0.271659 | 0.166962 | 0.135633 |
| 22/8/2011  | 0.269876 | 0.169829 | 0.126672 |
| 24/8/2011  | 0.271854 | 0.176873 | 0.192872 |
| 26/8/2011  | 0.278151 | 0.166891 | 0.205255 |
| 29/8/2011  | 0.278593 | 0.180028 | 0.217696 |
| 31/8/2011  | 0.300668 | 0.175351 | 0.171854 |
| 2/9/2011   | 0.324438 | 0.201392 | 0.181192 |
| 5/9/2011   | 0.343482 | 0.227697 | 0.199201 |
| 8/9/2011   | 0.254587 | 0.173842 | 0.318195 |
| 9/9/2011   | 0.278852 | 0.173867 | 0.270722 |
| 12/9/2011  | 0.243944 | 0.107961 | 0.120691 |
| 14/9/2011  | 0.195788 | 0.079633 | 0.129797 |
| 16/9/2011  | 0.304399 | 0.170072 | 0.210083 |
| 19/9/2011  | 0.299155 | 0.153452 | 0.222771 |
| 21/9/2011  | 0.368115 | 0.215375 | 0.222546 |
| 23/9/2011  | 0.355465 | 0.205401 | 0.205574 |
| 26/9/2011  | 0.379103 | 0.219379 | 0.214071 |
| 28/9/2011  | 0.358513 | 0.23441  | 0.179307 |
| 30/9/2011  | 0.348904 | 0.207073 | 0.171339 |
| 3/10/2011  | 0.342516 | 0.188597 | 0.160334 |
| 5/10/2011  | 0.355212 | 0.241061 | 0.164524 |
| 7/10/2011  | 0.375055 | 0.253571 | 0.315056 |
| 10/10/2011 | 0.376533 | 0.239439 | 0.166359 |
| 12/10/2011 | 0.361089 | 0.221749 | 0.166083 |
| 14/10/2011 | 0.369093 | 0.230531 | 0.170622 |
| 17/10/2011 | 0.379121 | 0.234297 | 0.181526 |
| 19/10/2011 | 0.380725 | 0.247527 | 0.221082 |
| 21/10/2011 | 0.391196 | 0.268009 | 0.226773 |
| 24/10/2011 | 0.36436  | 0.248171 | 0.222198 |
| 26/10/2011 | 0.306326 | 0.212603 | 0.164742 |
| 28/10/2011 | 0.331465 | 0.230142 | 0.189189 |
| 31/10/2011 | 0.324461 | 0.22544  | 0.246515 |
| 2/11/2011  | 0.329119 | 0.217958 | 0.166736 |
| 4/11/2011  | 0.33051  | 0.211412 | 0.028688 |
| 7/11/2011  | 0.323668 | 0.202019 | 0.129645 |
| 14/11/2011 | 0.3468   | 0.221243 | 0.219458 |
| 21/11/2011 | 0.255358 | 0.148933 | 0.20408  |
| 23/11/2011 | 0.250493 | 0.14839  | 0.18017  |
| 25/11/2011 | 0.263408 | 0.14444  | 0.151213 |
| 28/11/2011 | 0.277357 | 0.157344 | 0.185665 |
| 30/11/2011 | 0.252195 | 0.134634 | 0.20772  |
| 2/12/2011  | 0.254955 | 0.133597 | 0.138098 |
| 5/12/2011  | 0.252799 | 0.138132 | 0.106184 |
| 14/12/2011 | 0.249498 | 0.155216 | 0.179488 |
| 16/12/2011 | 0.224986 | 0.135524 | 0.126911 |
| 19/12/2011 | 0.255956 | 0.146823 | 0.133146 |
| 26/12/2011 | 0.233393 | 0.150229 | 0.15399  |

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| 2/1/2012  | 0.239281 | 0.156767 | 0.124932 |
| 11/1/2012 | 0.212733 | 0.127599 | 0.168186 |
| 13/1/2012 | 0.239787 | 0.139859 | 0.147799 |
| 18/1/2012 | 0.210646 | 0.120229 | 0.143391 |
| 20/1/2012 | 0.237786 | 0.1319   | 0.132711 |
| 24/1/2012 | 0.210893 | 0.125676 | 0.173268 |
| 25/1/2012 | 0.231288 | 0.13468  | 0.123279 |
| 27/1/2012 | 0.196127 | 0.118775 | 0.117073 |
| 30/1/2012 | 0.19738  | 0.11434  | 0.110331 |
| 1/2/2012  | 0.179325 | 0.096859 | 0.126005 |
| 3/2/2012  | 0.193286 | 0.106569 | 0.101478 |
| 6/2/2012  | 0.195328 | 0.116279 | 0.134147 |
| 8/2/2012  | 0.195408 | 0.112609 | 0.175334 |
| 10/2/2012 | 0.21417  | 0.126867 | 0.124584 |
| 13/2/2012 | 0.213452 | 0.124865 | 0.134734 |
| 15/2/2012 | 0.200365 | 0.113617 | 0.123975 |
| 17/2/2012 | 0.206661 | 0.134211 | 0.155592 |
| 20/2/2012 | 0.211715 | 0.12479  | 0.141063 |
| 22/2/2012 | 0.194609 | 0.12015  | 0        |
| 24/2/2012 | 0.22425  | 0.144657 | 0.136634 |
| 27/2/2012 | 0.23015  | 0.135595 | 0.124193 |
| 29/2/2012 | 0.225164 | 0.145343 | 0.161255 |
| 5/3/2012  | 0.204338 | 0.122792 | 0.138881 |
| 7/3/2012  | 0.170838 | 0.11118  | 0        |
| 9/3/2012  | 0.193085 | 0.120802 | 0.006061 |
| 12/3/2012 | 0.182252 | 0.120154 | 0.148893 |
| 14/3/2012 | 0.193637 | 0.127373 | 0        |
| 16/3/2012 | 0.216091 | 0.125835 | 0.006199 |
| 19/3/2012 | 0.247365 | 0.148419 | 0.00886  |
| 21/3/2012 | 0.244473 | 0.152599 | 0.106742 |
| 23/3/2012 | 0.247952 | 0.154923 | 0.110215 |
| 26/3/2012 | 0.269618 | 0.168763 | 0.119437 |
| 28/3/2012 | 0.319303 | 0.208373 | 0.169657 |
| 30/3/2012 | 0.310558 | 0.192109 | 0.148458 |
| 2/4/2012  | 0.308016 | 0.190324 | 0.272905 |
| 4/4/2012  | 0.309896 | 0.194537 | 0.240845 |
| 6/4/2012  | 0.330924 | 0.205054 | 0.190284 |
| 9/4/2012  | 0.308056 | 0.184606 | 0.183063 |
| 11/4/2012 | 0.279352 | 0.167087 | 0.150916 |
| 13/4/2012 | 0.280767 | 0.161256 | 0.157528 |
| 16/4/2012 | 0.296965 | 0.180237 | 0.163517 |
| 18/4/2012 | 0.263218 | 0.13307  | 0.195286 |
| 20/4/2012 | 0.25971  | 0.145761 | 0.157854 |
| 23/4/2012 | 0.252586 | 0.137856 | 0.139838 |
| 25/4/2012 | 0.257945 | 0.144712 | 0.1701   |
| 30/4/2012 | 0.29616  | 0.176371 | 0.179496 |
| 2/5/2012  | 0.246572 | 0.144549 | 0.145471 |
| 4/5/2012  | 0.253742 | 0.151466 | 0.173    |
| 7/5/2012  | 0.29099  | 0.185024 | 0.225743 |
| 10/5/2012 | 0.271176 | 0.16641  | 0.176893 |
| 15/5/2012 | 0.306182 | 0.194571 | 0.178582 |
| 16/5/2012 | 0.318717 | 0.197839 | 0.191915 |

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| 18/5/2012  | 0.316388 | 0.184647 | 0.229477 |
| 21/5/2012  | 0.326445 | 0.204841 | 0.187877 |
| 23/5/2012  | 0.457763 | 0.205309 | 0.239874 |
| 28/5/2012  | 0.324984 | 0.170419 | 0.23279  |
| 30/5/2012  | 0.35006  | 0.203253 | 0.200448 |
| 1/6/2012   | 0.32154  | 0.172575 | 0.204501 |
| 4/6/2012   | 0.318958 | 0.179661 | 0.263567 |
| 6/6/2012   | 0.308982 | 0.154714 | 0.192364 |
| 8/6/2012   | 0.302404 | 0.144707 | 0.217188 |
| 11/6/2012  | 0.293561 | 0.15295  | 0.183295 |
| 20/6/2012  | 0.252005 | 0.098084 | 0.185948 |
| 25/6/2012  | 0.314324 | 0.154376 | 0.179162 |
| 27/6/2012  | 0.251764 | 0.125793 | 0.181758 |
| 29/6/2012  | 0.248745 | 0.131816 | 0.18647  |
| 1/7/2012   | 0.276121 | 0.143537 | 0.213099 |
| 6/7/2012   | 0.284815 | 0.154535 | 0.194837 |
| 9/7/2012   | 0.265374 | 0.176793 | 0.175885 |
| 11/7/2012  | 0.287431 | 0.178804 | 0.11919  |
| 13/7/2012  | 0.169683 | 0.052877 | 0.109345 |
| 18/7/2012  | 0.139662 | 0.037386 | 0.084629 |
| 20/7/2012  | 0.291916 | 0.210095 | 0.184759 |
| 23/7/2012  | 0.267254 | 0.167029 | 0.176349 |
| 25/7/2012  | 0.190659 | 0.064263 | 0.123062 |
| 27/7/2012  | 0.250482 | 0.164734 | 0.15304  |
| 30/7/2012  | 0.168895 | 0.056986 | 0.10738  |
| 1/8/2012   | 0.292618 | 0.200381 | 0.190632 |
| 3/8/2012   | 0.291646 | 0.197175 | 0.19364  |
| 6/8/2012   | 0.28409  | 0.185245 | 0.176893 |
| 8/8/2012   | 0.276426 | 0.191298 | 0.186209 |
| 10/8/2012  | 0.269997 | 0.199495 | 0.1653   |
| 15/8/2012  | 0.218615 | 0.075679 | 0.132769 |
| 17/8/2012  | 0.261246 | 0.115276 | 0.158906 |
| 22/8/2012  | 0.234508 | 0.163877 | 0.329998 |
| 24/8/2012  | 0.287609 | 0.094129 | 0.176828 |
| 27/8/2012  | 0.229201 | 0.087726 | 0.134524 |
| 29/8/2012  | 0.196248 | 0.032637 | 0.096759 |
| 5/9/2012   | 0.325531 | 0.102188 | 0.144616 |
| 7/9/2012   | 0.287621 | 0.170837 | 0.176052 |
| 10/9/2012  | 0.240689 | 0.136172 | 0.121981 |
| 12/9/2012  | 0.283533 | 0.165281 | 0.136191 |
| 17/9/2012  | 0.301375 | 0.19343  | 0.163763 |
| 19/9/2012  | 0.281877 | 0.172889 | 0.153367 |
| 21/9/2012  | 0.273349 | 0.178499 | 0.184099 |
| 24/9/2012  | 0.272303 | 0.168931 | 0.16306  |
| 26/9/2012  | 0.2957   | 0.189831 | 0.238627 |
| 28/9/2012  | 0.31621  | 0.178754 | 0.171876 |
| 1/10/2012  | 0.307453 | 0.186332 | 0.158652 |
| 3/10/2012  | 0.281371 | 0.172701 | 0.180402 |
| 5/10/2012  | 0.291284 | 0.186156 | 0.17798  |
| 8/10/2012  | 0.297419 | 0.195085 | 0.177937 |
| 10/10/2012 | 0.32917  | 0.210914 | 0.194119 |
| 12/10/2012 | 0.321368 | 0.197576 | 0.190842 |

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| 15/10/2012 | 0.337278 | 0.224387 | 0.199477 |
| 17/10/2012 | 0.332028 | 0.217937 | 0.233537 |
| 19/10/2012 | 0.351647 | 0.231472 | 0.211084 |
| 22/10/2012 | 0.337663 | 0.227442 | 0.199578 |
| 26/10/2012 | 0.372445 | 0.254244 | 0.233537 |
| 30/10/2012 | 0.344661 | 0.232429 | 0.245094 |
| 31/10/2012 | 0.356644 | 0.255887 | 0.260609 |
| 2/11/2012  | 0.311759 | 0.17872  | 0.206785 |
| 5/11/2012  | 0.22214  | 0.107928 | 0.097839 |
| 7/11/2012  | 0.173345 | 0.086049 | 0.164423 |
| 9/11/2012  | 0.175749 | 0.076548 | 0.136155 |
| 14/11/2012 | 0.289001 | 0.188029 | 0.212759 |
| 16/11/2012 | 0.277938 | 0.174946 | 0.288971 |
| 19/11/2012 | 0.275782 | 0.176542 | 0.145624 |
| 21/11/2012 | 0.274522 | 0.179753 | 0.233051 |
| 24/11/2012 | 0.291065 | 0.187101 | 0.163538 |
| 28/11/2012 | 0.305687 | 0.188334 | 0.162748 |
| 30/11/2012 | 0.292675 | 0.181174 | 0.1822   |
| 3/12/2012  | 0.271998 | 0.142801 | 0.143441 |
| 5/12/2012  | 0.259296 | 0.153765 | 0.265597 |
| 7/12/2012  | 0.250677 | 0.14276  | 0.237575 |
| 10/12/2012 | 0.232915 | 0.115159 | 0.168062 |
| 12/12/2012 | 0.221105 | 0.120547 | 0.172441 |
| 14/12/2012 | 0.282296 | 0.203273 | 0.244419 |
| 17/12/2012 | 0.272976 | 0.180831 | 0.193314 |

**Table S6.** Alum Water DBP Data.

| Date       | THM  | HAA  |
|------------|------|------|
| 22/9/2010  | 60.0 | 87.4 |
| 29/9/2010  | 41.9 | 62.9 |
| 6/10/2010  | 34.5 | 47.6 |
| 13/10/2010 | 36.1 | 50.2 |
| 20/10/2010 | 36.4 | 55.2 |
| 27/10/2010 | 41.1 | 62.3 |
| 3/11/2010  | 46.7 | 53.7 |
| 10/11/2010 | 43.3 | 49.1 |
| 17/11/2010 | 48.8 | 40.3 |
| 24/11/2010 | 50.9 | 51.2 |
| 1/12/2010  | 63.1 | 69.5 |
| 8/12/2010  | 68.4 | 69.9 |
| 15/12/2010 | 53.0 | 56.6 |
| 22/12/2010 | 36.2 | 51.6 |
| 29/12/2010 | 48.1 | 60.6 |
| 5/1/2011   | 38.5 | 57.6 |
| 12/1/2011  | 39.4 | 55.5 |
| 19/1/2011  | 38.5 | 51.6 |
| 26/1/2011  | 37.1 | 42.0 |
| 2/2/2011   | 43.2 | 41.4 |
| 9/2/2011   | 55.5 | 40.6 |
| 16/2/2011  | 43.7 | 34.2 |
| 2/3/2011   | 29.4 | 35.0 |
| 9/3/2011   | 27.2 | 35.7 |

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|            |       |       |
|------------|-------|-------|
| 16/3/2011  | 27.9  | 41.8  |
| 23/3/2011  | 36.5  | 46.5  |
| 30/3/2011  | 34.5  | 57.1  |
| 6/4/2011   | 39.8  | 56.2  |
| 14/4/2011  | 45.9  | 58.6  |
| 20/4/2011  | 40.7  | 47.2  |
| 27/4/2011  | 49.6  | 66.6  |
| 4/5/2011   | 60.1  | 81.2  |
| 11/5/2011  | 128.9 | 164.7 |
| 18/5/2011  | 105.3 | 105.7 |
| 25/5/2011  | 107.4 | 99.7  |
| 1/6/2011   | 99.6  | 105.4 |
| 8/6/2011   | 132.0 | 152.3 |
| 15/6/2011  | 190.0 | 133.1 |
| 22/6/2011  | 96.5  | 75.3  |
| 30/6/2011  | 98.5  |       |
| 6/7/2011   | 95.3  | 87.6  |
| 13/7/2011  | 65.8  | 62.9  |
| 20/7/2011  | 65.5  | 59.5  |
| 27/7/2011  | 76.2  | 79.7  |
| 3/8/2011   | 57.6  | 52.8  |
| 10/8/2011  | 58.7  | 54.8  |
| 22/8/2011  | 58.3  | 56.5  |
| 29/8/2011  | 51.6  | 54.5  |
| 5/9/2011   | 49.3  | 55.1  |
| 12/9/2011  | 156.4 | 220.5 |
| 19/9/2011  | 120.5 | 156.8 |
| 26/9/2011  | 78.1  | 68.6  |
| 3/10/2011  | 84.8  | 117.3 |
| 10/10/2011 | 83.3  | 80.1  |
| 17/10/2011 | 99.0  | 80.1  |
| 24/10/2011 | 106.3 | 89.3  |
| 31/10/2011 | 87.4  | 96.0  |
| 7/11/2011  | 89.0  | 95.0  |
| 14/11/2011 | 97.2  | 98.4  |
| 21/11/2011 | 66.1  | 81.7  |
| 28/11/2011 | 73.5  | 75.4  |
| 5/12/2011  | 68.1  | 90.9  |
| 12/12/2011 | 85.0  | 82.9  |
| 19/12/2011 | 87.5  | 77.8  |
| 26/12/2011 | 58.0  | 62.5  |
| 2/1/2012   | 56.4  | 57.6  |
| 30/1/2012  | 43.1  | 43.7  |
| 20/2/2012  | 54.9  | 48.4  |
| 5/3/2012   | 49.0  | 50.5  |
| 19/3/2012  | 64.6  | 77.1  |
| 2/4/2012   | 84.3  | 90.9  |
| 16/4/2012  | 85.3  | 82.2  |
| 30/4/2012  | 72.1  | 66.8  |
| 15/5/2012  | 72.7  | 82.1  |
| 28/5/2012  | 83.8  | 111.6 |
| 11/6/2012  | 92.0  | 67.9  |

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|            |       |       |
|------------|-------|-------|
| 25/6/2012  | 85.5  | 65.8  |
| 9/7/2012   | 96.1  | 69.0  |
| 23/7/2012  | 58.0  | 57.0  |
| 6/8/2012   | 49.2  | 57.0  |
| 17/8/2012  | 88.8  | 154.0 |
| 17/9/2012  | 59.3  | 56.4  |
| 1/10/2012  | 59.6  | 54.3  |
| 15/10/2012 | 75.3  | 72.2  |
| 30/10/2012 | 86.4  | 78.8  |
| 9/11/2012  | 104.0 | 258.7 |
| 10/12/2012 | 120.2 | 161.3 |

Table S7. ACH Water Data.

| Date       | Sample Analysis Date | TOC (mg/L) | pH    | UV254 (cm <sup>-1</sup> ) | Cl2 Residual | SUVA 254 |
|------------|----------------------|------------|-------|---------------------------|--------------|----------|
| 13/11/2009 |                      | 3.90       |       | 0.042                     |              | 1.08     |
| 16/11/2009 |                      | 4.32       |       | 0.051                     |              | 1.18     |
| 18/11/2009 |                      | 3.35       |       | 0.046                     |              | 1.37     |
| 20/11/2009 |                      | 3.68       |       | 0.052                     |              | 1.41     |
| 23/11/2009 |                      | 3.59       |       | 0.053                     |              | 1.48     |
| 25/11/2009 |                      | 4.10       |       | 0.064                     |              | 1.56     |
| 30/11/2009 |                      | 4.59       |       | 0.059                     |              | 1.28     |
| 2/12/2009  |                      | 4.08       | 7.81  | 0.067                     |              | 1.64     |
| 4/12/2009  |                      | 4.35       | 7.8   | 0.069                     |              | 1.59     |
| 7/12/2009  |                      | 3.83       | 7.8   | 0.065                     |              | 1.70     |
| 9/12/2009  |                      | 3.65       | 7.83  | 0.063                     |              | 1.73     |
| 11/12/2009 |                      | 3.95       | 7.81  | 0.065                     |              | 1.64     |
| 14/12/2009 |                      | 3.95       | 7.6   | 0.069                     |              | 1.75     |
| 16/12/2009 |                      | 4.22       | 7.66  | 0.067                     |              | 1.59     |
| 18/12/2009 |                      | 3.94       | 7.61  | 0.071                     |              | 1.80     |
| 21/12/2009 |                      |            |       |                           |              | #DIV/0!  |
| 23/12/2009 |                      | 3.79       | 7.58  | 0.061                     |              | 1.61     |
| 25/12/2009 |                      |            |       |                           |              | #DIV/0!  |
| 28/12/2009 |                      | 3.71       | 7.51  | 0.056                     |              | 1.51     |
| 30/12/2009 |                      | 3.38       | 7.49  | 0.056                     |              | 1.66     |
| 6/1/2010   |                      | 3.80       | 7.61  | 0.055                     |              | 1.45     |
| 8/1/2010   |                      | 3.69       | 7.66  | 0.051                     |              | 1.38     |
| 11/1/2010  |                      | 3.85       | 7.44  | 0.057                     |              | 1.48     |
| 13/1/2010  |                      | 4.28       | 7.54  | 0.043                     |              | 1.00     |
| 16/1/2010  |                      | 3.89       | 7.53  | 0.043                     |              | 1.11     |
| 20/1/2010  |                      | 3.62       | 7.25  | 0.045                     |              | 1.24     |
| 22/1/2010  |                      | 3.18       | 7.32  | 0.043                     |              | 1.35     |
| 25/1/2010  |                      | 3.68       | 7.58  | 0.046                     |              | 1.25     |
| 27/1/2010  |                      | 3.98       | 7.83  | 0.049                     |              | 1.23     |
| 29/1/2010  |                      | 3.16       | 7.72  | 0.044                     |              | 1.39     |
| 1/2/2010   |                      | 3.14       | 7.34  | 0.044                     |              | 1.40     |
| 4/2/2010   |                      | 4.22       | 7.36  | 0.044                     |              | 1.04     |
| 5/2/2010   |                      | 3.11       | 7.36  | 0.043                     |              | 1.38     |
| 8/2/2010   |                      | 2.73       | 7.54  | 0.041                     |              | 1.50     |
| 10/2/2010  |                      | 2.73       | 7.55  | 0.046                     |              | 1.68     |
| 15/2/2010  |                      | 2.48       | 7.432 | 0.04                      |              | 1.61     |
| 17/2/2010  |                      | 2.55       | 7.45  | 0.04                      |              | 1.57     |
| 19/2/2010  |                      | 2.66       | 7.65  | 0.041                     |              | 1.54     |
| 22/2/2010  |                      | 3.27       | 7.83  | 0.04                      |              | 1.22     |
| 24/2/2010  |                      | 3.20       | 7.85  | 0.043                     |              | 1.34     |
| 26/2/2010  |                      | 2.28       | 7.83  | 0.046                     |              | 2.02     |
| 1/3/2010   |                      | 2.16       | 7.92  | 0.044                     |              | 2.04     |

|            |            |      |      |       |      |         |
|------------|------------|------|------|-------|------|---------|
| 3/3/2010   |            | 3.11 | 7.78 | 0.053 |      | 1.70    |
| 8/3/2010   |            | 2.89 | 7.73 | 0.047 |      | 1.63    |
| 10/3/2010  |            | 2.82 | 7.74 | 0.051 |      | 1.81    |
| 15/3/2010  |            | 2.64 | 7.92 | 0.038 |      | 1.44    |
| 17/3/2010  |            | 2.16 | 7.87 | 0.038 |      | 1.76    |
| 19/3/2010  |            | 2.91 | 7.88 | 0.044 |      | 1.51    |
| 23/3/2010  |            | 2.55 | 7.74 | 0.045 |      | 1.77    |
| 24/3/2010  |            | 2.75 | 7.84 | 0.052 |      | 1.89    |
| 26/3/2010  |            | 2.58 | 7.8  | 0.047 |      | 1.82    |
| 31/3/2010  |            | 2.81 | 8.02 | 0.059 |      | 2.10    |
| 7/4/2010   |            | 2.93 | 8.05 | 0.054 |      | 1.84    |
| 14/4/2010  |            | 3.33 | 8.14 | 0.065 |      | 1.95    |
| 21/4/2010  |            | 3.16 | 8.02 | 0.055 |      | 1.74    |
| 28/4/2010  |            | 2.89 | 8.26 | 0.05  |      | 1.73    |
| 5/5/2010   |            | 3.27 | 8.24 | NA    |      | #VALUE! |
| 19/5/2010  |            | 3.21 | NA   | 0.057 |      | 1.77    |
| 26/5/2010  |            | 3.01 | 7.58 | 0.074 |      | 2.46    |
| 2/6/2010   |            | 2.45 | 7.89 | 0.081 |      | 3.30    |
| 9/6/2010   |            | 2.92 | 7.65 | 0.069 |      | 2.36    |
| 17/6/2010  |            | 3.51 | 7.75 | 0.064 |      | 1.82    |
| 30/6/2010  |            | 2.71 | 7.79 | 0.064 |      | 2.36    |
| 7/7/2010   | 15/7/2010  | 3.56 | 7.94 | 0.055 |      | 1.55    |
| 14/7/2010  | 22/7/2010  | 2.93 | 7.83 | 0.057 |      | 1.94    |
| 21/7/2010  | 28/7/2010  | 2.19 | 7.71 | 0.051 |      | 2.32    |
| 28/7/2010  | 5/8/2010   | 2.01 | 7.55 | 0.051 |      | 2.54    |
| 4/8/2010   | 9/8/2010   | 2.05 | 7.9  | 0.049 |      | 2.39    |
| 11/8/2010  | 20/8/2010  | 2.60 | 7.54 | 0.044 |      | 1.69    |
| 18/8/2010  | 24/8/2010  | 2.70 | 7.49 | 0.044 |      | 1.63    |
| 25/8/2010  | 31/8/2010  | 2.58 | 7.45 | 0.041 |      | 1.59    |
| 1/9/2010   | 10/9/2010  | 2.62 | 7.57 | 0.044 |      | 1.68    |
| 8/9/2010   | 14/9/2010  | 3.23 | 7.35 | 0.043 |      | 1.33    |
| 13/9/2010  | 22/9/2010  | 2.82 | 7.41 | 0.055 |      | 1.95    |
| 15/9/2010  | 22/9/2010  | 2.77 | 7.61 | 0.045 |      | 1.63    |
| 17/9/2010  | 22/9/2010  | 2.85 | 7.66 | 0.04  |      | 1.40    |
| 20/9/2010  | 29/9/2010  | 2.55 | 7.56 | 0.039 |      | 1.53    |
| 22/9/2010  | 29/9/2010  | 2.88 | 7.77 | 0.036 | 6.88 | 1.25    |
| 24/9/2010  | 29/9/2010  | 2.78 | 7.77 | 0.044 |      | 1.58    |
| 27/9/2010  | 8/10/2010  | 2.61 | 7.72 | 0.037 |      | 1.42    |
| 29/9/2010  | 8/10/2010  | 2.67 | 7.65 | 0.037 | 6.09 | 1.39    |
| 1/10/2010  | 8/10/2010  | 2.35 | 7.68 | 0.036 |      | 1.53    |
| 4/10/2010  | 12/10/2010 | 2.55 | 7.56 | 0.038 |      | 1.49    |
| 6/10/2010  | 12/10/2010 | 2.89 | 7.67 | 0.04  | 5.03 | 1.39    |
| 8/10/2010  | 12/10/2010 | 2.75 | 7.74 | 0.042 |      | 1.53    |
| 11/10/2010 | 19/10/2010 | 3.07 | 7.62 | 0.046 |      | 1.50    |
| 13/10/2010 | 19/10/2010 | 2.82 | 7.9  | 0.05  | 5.58 | 1.77    |
| 15/10/2010 | 19/10/2010 | 2.69 | 7.67 | 0.049 |      | 1.82    |
| 18/10/2010 | 26/10/2010 | 3.42 | 7.71 | 0.052 |      | 1.52    |
| 20/10/2010 | 26/10/2010 | 3.28 | 7.82 | 0.052 | 5.18 | 1.59    |
| 22/10/2010 | 26/10/2010 | 3.61 | 7.78 | 0.049 |      | 1.36    |
| 25/10/2010 | 5/11/2010  | 3.38 | 7.65 | 0.05  |      | 1.48    |
| 27/10/2010 | 5/11/2010  | 3.16 | 7.68 | 0.054 | 6.32 | 1.71    |
| 29/10/2010 | 5/11/2010  | 3.42 | 7.69 | 0.052 |      | 1.52    |
| 1/11/2010  | 9/11/2010  | 3.63 | 7.77 | 0.046 |      | 1.27    |
| 3/11/2010  | 9/11/2010  | 3.42 | 7.93 | 0.048 | 6.52 | 1.40    |
| 5/11/2010  | 9/11/2010  | 3.48 | 7.9  | 0.049 |      | 1.41    |
| 8/11/2010  | 19/11/2010 | 3.19 | 7.83 | 0.046 |      | 1.44    |
| 10/11/2010 | 19/11/2010 | 3.32 | 7.86 | 0.051 | 6.82 | 1.54    |
| 12/11/2010 | 19/11/2010 | 3.27 | 7.85 | 0.053 |      | 1.62    |

|            |            |      |      |       |      |      |
|------------|------------|------|------|-------|------|------|
| 15/11/2010 | 24/11/2010 | 3.55 | 7.82 | 0.046 |      | 1.30 |
| 17/11/2010 | 24/11/2010 | 3.86 | 7.76 | 0.045 | 4.63 | 1.17 |
| 19/11/2010 | 24/11/2010 | 3.62 | 7.76 | 0.044 |      | 1.21 |
| 22/11/2010 | 3/12/2010  | 3.39 | 7.83 | 0.054 |      | 1.59 |
| 23/11/2010 | 3/12/2010  | 3.19 | 7.9  | 0.05  |      | 1.57 |
| 24/11/2010 | 3/12/2010  | 3.67 | 7.93 | 0.05  | 4.88 | 1.36 |
| 29/11/2010 | 14/12/2010 | 3.42 | 7.74 | 0.057 |      | 1.67 |
| 1/12/2010  | 14/12/2010 | 3.48 | 7.82 | 0.061 | 6.37 | 1.75 |
| 3/12/2010  | 14/12/2010 | 3.48 | 7.76 | 0.064 |      | 1.84 |
| 6/12/2010  | 15/12/2010 | 3.39 | 7.23 | 0.069 |      | 2.04 |
| 8/12/2010  | 15/12/2010 | 3.58 | 7.53 | 0.08  | 5.26 | 2.23 |
| 10/12/2010 | 17/12/2010 | 3.31 | 7.37 | 0.061 |      | 1.84 |
| 13/12/2010 | 20/12/2010 | 2.81 | 7.22 | 0.052 |      | 1.85 |
| 15/12/2010 | 20/12/2010 | 2.72 | 7.16 | 0.049 | 6.37 | 1.80 |
| 17/12/2010 | 20/12/2010 | 2.64 | 7.36 | 0.046 |      | 1.74 |
| 21/12/2010 | 5/1/2011   | 2.42 | 7.41 | 0.042 |      | 1.73 |
| 22/12/2010 | 5/1/2011   | 2.55 | 7.62 | 0.045 | 6.81 | 1.77 |
| 24/12/2010 | 5/1/2011   | 2.42 | 7.67 | 0.047 |      | 1.94 |
| 27/12/2010 | 11/1/2011  | 2.59 | 7.44 | 0.046 |      | 1.78 |
| 29/12/2010 | 11/1/2011  | 2.48 | 7.63 | 0.049 | 6.43 | 1.98 |
| 31/12/2010 | 11/1/2011  | 2.65 | 7.57 | 0.044 |      | 1.66 |
| 5/1/2011   | 13/1/2011  | 2.42 | 7.02 | 0.044 | 5.92 | 1.82 |
| 7/1/2011   | 13/1/2011  | 2.27 | 6.89 | 0.048 |      | 2.11 |
| 10/1/2011  | 19/1/2011  | 2.50 | 6.83 | 0.04  |      | 1.60 |
| 12/1/2011  | 19/1/2011  | 2.42 | 6.79 | 0.042 | 6.17 | 1.74 |
| 14/1/2011  | 19/1/2011  | 2.49 | 6.93 | 0.041 |      | 1.64 |
| 17/1/2011  | 27/1/2011  | 2.95 | 6.92 | 0.045 |      | 1.53 |
| 19/1/2011  | 27/1/2011  | 2.33 | 7.21 | 0.042 | 5.72 | 1.80 |
| 21/1/2011  | 27/1/2011  | 2.10 | 7.08 | 0.052 |      | 2.48 |
| 24/1/2011  | 9/2/2011   | 2.49 | 7.24 | 0.034 |      | 1.37 |
| 26/1/2011  | 9/2/2011   | 2.33 | 7.41 | 0.036 | 6.76 | 1.55 |
| 28/1/2011  | 9/2/2011   | 2.95 | 7.39 | 0.036 |      | 1.22 |
| 31/1/2011  | 11/2/2011  | 3.00 | 7.39 | 0.039 |      | 1.30 |
| 2/2/2011   | 11/2/2011  | 2.61 | 7.49 | 0.038 | 5.61 | 1.46 |
| 4/2/2011   | 11/2/2011  | 3.01 | 7.41 | 0.04  |      | 1.33 |
| 7/2/2011   | 21/2/2011  | 2.27 | 7.57 | 0.037 |      | 1.63 |
| 9/2/2011   | 21/2/2011  | 2.19 | 7.52 | 0.036 | 6.28 | 1.64 |
| 11/2/2011  | 21/2/2011  | 2.69 | 7.42 | 0.037 |      | 1.38 |
| 14/2/2011  | 9/3/2011   | 2.17 | 7.31 | 0.032 |      | 1.47 |
| 16/2/2011  | 9/3/2011   | 2.18 | 7.61 | 0.037 | 7.35 | 1.70 |
| 18/2/2011  | 9/3/2011   | 2.02 | 6.63 | 0.033 |      | 1.63 |
| 21/2/2011  | 11/3/2011  | 2.10 | 6.78 | 0.039 |      | 1.86 |
| 23/2/2011  | 11/3/2011  | 1.97 | 6.98 | 0.034 | 6.04 | 1.73 |
| 25/2/2011  | 11/3/2011  | 2.14 | 7.01 | 0.03  |      | 1.40 |
| 28/2/2011  | 15/3/2011  | 2.10 | 6.57 | 0.021 |      | 1.00 |
| 2/3/2011   | 15/3/2011  | 1.95 | 6.76 | 0.023 | 5.94 | 1.18 |
| 4/3/2011   | 15/3/2011  | 2.58 | 6.8  | 0.02  |      | 0.78 |
| 7/3/2011   | 16/3/2011  | 1.81 | 6.92 | 0.029 |      | 1.60 |
| 9/3/2011   | 16/3/2011  | 1.99 | 7.18 | 0.027 | 7.65 | 1.36 |
| 11/3/2011  | 16/3/2011  | 1.95 | 7.08 | 0.026 |      | 1.33 |
| 15/3/2011  | 25/3/2011  | 1.87 | 6.54 | 0.028 |      | 1.50 |
| 16/3/2011  | 25/3/2011  | 1.87 | 6.73 | 0.031 | 5.02 | 1.66 |
| 18/3/2011  | 25/3/2011  | 1.89 | 6.96 | 0.026 |      | 1.38 |
| 21/3/2011  | 31/3/2011  | 1.80 | 6.99 | 0.023 |      | 1.28 |
| 23/3/2011  | 31/3/2011  | 1.75 | 7.15 | 0.029 | 6.52 | 1.66 |
| 25/3/2011  | 31/3/2011  | 2.43 | 7.18 | 0.03  |      | 1.23 |
| 28/3/2011  | 8/4/2011   | 1.71 | 7.14 | 0.035 |      | 2.05 |
| 30/3/2011  | 8/4/2011   | 1.89 | 7.27 | 0.033 | 7.83 | 1.75 |

|           |           |      |      |       |      |      |
|-----------|-----------|------|------|-------|------|------|
| 1/4/2011  | 8/4/2011  | 1.79 | 7.38 | 0.033 |      | 1.84 |
| 4/4/2011  | 15/4/2011 | 1.74 | 7.06 | 0.037 |      | 2.13 |
| 6/4/2011  | 15/4/2011 | 1.88 | 7.32 | 0.035 | 6.85 | 1.86 |
| 8/4/2011  | 15/4/2011 | 2.40 | 7.4  | 0.047 |      | 1.96 |
| 11/4/2011 | 25/4/2011 | 2.75 | 6.96 | 0.052 |      | 1.89 |
| 14/4/2011 | 25/4/2011 | 2.26 | 7.33 | 0.053 | 6.75 | 2.35 |
| 15/4/2011 | 25/4/2011 | 2.52 | 7.37 | 0.049 |      | 1.94 |
| 18/4/2011 | 3/5/2011  | 2.51 | 7.12 | 0.047 |      | 1.87 |
| 20/4/2011 | 3/5/2011  | 2.40 | 7.32 | 0.054 | 6.7  | 2.25 |
| 22/4/2011 | 3/5/2011  | 3.53 | 7.38 | 0.055 |      | 1.56 |
| 25/4/2011 | 10/5/2011 | 2.42 | 6.76 | 0.052 |      | 2.15 |
| 27/4/2011 | 10/5/2011 | 2.34 | 6.94 | 0.057 | 6.61 | 2.44 |
| 29/4/2011 | 10/5/2011 | 2.39 | 7.06 | 0.059 |      | 2.47 |
| 2/5/2011  | 12/5/2011 | 2.36 | 7.24 | 0.048 |      | 2.03 |
| 4/5/2011  | 12/5/2011 | 2.41 | 7.41 | 0.058 | 5.93 | 2.41 |
| 6/5/2011  | 12/5/2011 | 2.61 | 7.46 | 0.065 |      | 2.49 |
| 9/5/2011  | 19/5/2011 | 2.16 | 7.42 | 0.065 |      | 3.01 |
| 11/5/2011 | 19/5/2011 | 2.49 | 7.57 | 0.07  | 5.03 | 2.81 |
| 13/5/2011 | 19/5/2011 | 2.15 | 7.31 | 0.06  |      | 2.79 |
| 16/5/2011 | 3/6/2011  | 3.09 | 7.32 | 0.06  |      | 1.94 |
| 18/5/2011 | 3/6/2011  | 3.62 | 7.47 | 0.076 | 4.34 | 2.10 |
| 20/5/2011 | 3/6/2011  | 3.22 | 7.47 | 0.062 |      | 1.93 |
| 23/5/2011 | 9/6/2011  | 3.15 | 7.2  | 0.072 |      | 2.29 |
| 25/5/2011 | 9/6/2011  | 3.30 | 7.61 | 0.081 | 5.1  | 2.45 |
| 27/5/2011 | 9/6/2011  | 3.60 | 7.81 | 0.075 |      | 2.08 |
| 1/6/2011  | 10/6/2011 | 3.81 | 7.45 | 0.085 | 4.8  | 2.23 |
| 3/6/2011  | 10/6/2011 | 3.91 | 7.61 | 0.091 |      | 2.33 |
| 8/6/2011  | 17/6/2011 | 3.83 | 7.42 | 0.077 | 5.05 | 2.01 |
| 10/6/2011 | 17/6/2011 | 3.03 | 7.41 | 0.067 |      | 2.21 |
| 15/6/2011 | 21/6/2011 | 3.01 | 7.07 | 0.06  | 7.5  | 1.99 |
| 17/6/2011 | 21/6/2011 | 3.41 | NA   | 0.056 |      | 1.64 |
| 20/6/2011 | 30/6/2011 | 3.20 | 7.3  | 0.082 |      | 2.56 |
| 22/6/2011 | 30/6/2011 | 2.64 | 7.39 | 0.066 | 6.01 | 2.50 |
| 24/6/2011 | 6/7/2011  | 2.40 | 7.62 | 0.057 |      | 2.38 |
| 30/6/2011 | 12/7/2011 | 2.69 | 7.77 | 0.068 | 5.14 | 2.53 |
| 1/7/2011  | 12/7/2011 | 3.06 | 7.99 | 0.079 |      | 2.58 |
| 6/7/2011  | 14/7/2011 | 2.72 | 7.63 | 0.073 | 4.38 | 2.68 |
| 9/7/2011  | 14/7/2011 | 2.73 | 7.7  | 0.07  |      | 2.56 |
| 11/7/2011 | 20/7/2011 | 2.48 | 7.39 | 0.068 |      | 2.74 |
| 13/7/2011 | 20/7/2011 | 3.10 | 7.8  | 0.069 | 4.96 | 2.23 |
| 15/7/2011 | 20/7/2011 | 2.79 | 7.79 | 0.06  |      | 2.15 |
| 18/7/2011 | 25/7/2011 | 2.39 | 7.4  | 0.051 |      | 2.13 |
| 20/7/2011 | 25/7/2011 | 2.45 | 7.57 | 0.055 | 5.39 | 2.24 |
| 25/7/2011 | 18/8/2011 | 3.56 | 7.66 | 0.054 |      | 1.52 |
| 27/7/2011 | 18/8/2011 | 2.45 | 7.79 | 0.05  | 5.92 | 2.04 |
| 3/8/2011  | 18/8/2011 | 2.49 | 7.85 | 0.038 | 8.38 | 1.53 |
| 8/8/2011  | 18/8/2011 | 2.07 | 7.66 | 0.046 |      | 2.22 |
| 10/8/2011 | 18/8/2011 | 2.32 | 7.75 | 0.047 | 4.94 | 2.03 |
| 17/8/2011 | 25/8/2011 | 2.21 | 7.62 | 0.048 |      | 2.17 |
| 20/8/2011 | 25/8/2011 | 2.52 | 7.84 | 0.052 |      | 2.06 |
| 22/8/2011 | 25/8/2011 | 2.22 | 7.74 | 0.049 | 5.88 | 2.21 |
| 24/8/2011 | 31/8/2011 | 2.35 | 7.73 | 0.046 |      | 1.96 |
| 26/8/2011 | 31/8/2011 | 2.54 | 7.76 | 0.048 |      | 1.89 |
| 29/8/2011 | 31/8/2011 | 2.44 | 7.7  | 0.048 | 5.2  | 1.97 |
| 31/8/2011 | 7/9/2011  | 2.84 | 7.26 | 0.045 |      | 1.58 |
| 2/9/2011  | 7/9/2011  | 2.94 | 7.63 | 0.048 |      | 1.63 |
| 5/9/2011  | 7/9/2011  | 2.75 | 7.73 | 0.05  | 5.48 | 1.82 |
| 8/9/2011  | 13/9/2011 | 3.00 | 7.61 | 0.049 |      | 1.63 |

|            |            |      |      |       |      |      |
|------------|------------|------|------|-------|------|------|
| 9/9/2011   | 13/9/2011  | 3.02 | 7.56 | 0.054 |      | 1.79 |
| 12/9/2011  | 13/9/2011  | 3.89 | 7.58 | 0.062 | 5.48 | 1.59 |
| 14/9/2011  | 20/9/2011  | 3.27 | 7.46 | 0.046 |      | 1.41 |
| 16/9/2011  | 20/9/2011  | 4.01 | 7.3  | 0.064 |      | 1.60 |
| 19/9/2011  | 20/9/2011  | 4.24 | 7.62 | 0.072 | 5.12 | 1.70 |
| 21/9/2011  | 27/9/2011  | 4.26 | 7.58 | 0.069 |      | 1.62 |
| 23/9/2011  | 27/9/2011  | 4.03 | 7.53 | 0.073 |      | 1.81 |
| 26/9/2011  | 27/9/2011  | 3.98 | 7.49 | 0.072 | 5.14 | 1.81 |
| 28/9/2011  | 4/10/2011  | 3.55 | 7.3  | 0.066 |      | 1.86 |
| 30/9/2011  | 4/10/2011  | 3.55 | 7.54 | 0.067 |      | 1.89 |
| 3/10/2011  | 4/10/2011  | 3.64 | 7.3  | 0.069 | 4.39 | 1.90 |
| 5/10/2011  | 24/10/2011 | 4.16 | 7.36 | 0.075 |      | 1.80 |
| 7/10/2011  | 24/10/2011 | 4.18 | 7.38 | 0.078 |      | 1.87 |
| 10/10/2011 | 24/10/2011 | 4.65 | 7.54 | 0.08  | 4.93 | 1.72 |
| 12/10/2011 | 25/10/2011 | 4.18 | 7.3  | 0.071 |      | 1.70 |
| 14/10/2011 | 25/10/2011 | 4.24 | 7.43 | 0.07  |      | 1.65 |
| 17/10/2011 | 25/10/2011 | 4.02 | 7.54 | 0.071 | 4.72 | 1.77 |
| 19/10/2011 | 25/10/2011 | 3.96 | 7.4  | 0.072 |      | 1.82 |
| 21/10/2011 | 25/10/2011 | 4.09 | 7.7  | 0.073 |      | 1.78 |
| 24/10/2011 | 25/10/2011 | 4.73 | 7.76 | 0.088 | 3.84 | 1.86 |
| 26/10/2011 | 1/11/2011  | 4.15 | 7.26 | 0.079 |      | 1.90 |
| 28/10/2011 | 1/11/2011  | 4.25 | 7.35 | 0.087 |      | 2.05 |
| 31/10/2011 | 1/11/2011  | 4.20 | 7.44 | 0.08  | 4.47 | 1.90 |
| 2/11/2011  | 11/11/2011 | 4.11 | 7.16 | 0.077 |      | 1.87 |
| 4/11/2011  | 11/11/2011 | 4.00 | 7.34 | 0.073 |      | 1.83 |
| 7/11/2011  | 11/11/2011 | 3.80 | 7.56 | 0.073 | 5.19 | 1.92 |
| 14/11/2011 | 23/11/2011 | 3.56 | 7.59 | 0.069 | 4.89 | 1.94 |
| 21/11/2011 | 23/11/2011 | 3.75 | 7.04 | 0.071 | 5.27 | 1.89 |
| 23/11/2011 | 30/11/2011 | 2.94 | 7.15 | 0.063 |      | 2.14 |
| 25/11/2011 | 30/11/2011 | 2.80 | 7.29 | 0.063 |      | 2.25 |
| 28/11/2011 | 30/11/2011 | 2.80 | 7.45 | 0.066 | 5.24 | 2.36 |
| 30/11/2011 | 8/12/2011  | 3.43 | 7.14 | 0.054 |      | 1.57 |
| 2/12/2011  | 8/12/2011  | 3.05 | 7.54 | 0.057 |      | 1.87 |
| 5/12/2011  | 8/12/2011  | 3.10 | 7.41 | 0.056 | 6.07 | 1.81 |
| 7/12/2011  | 15/12/2011 | 3.07 | 7.1  | 0.059 |      | 1.92 |
| 9/12/2011  | 15/12/2011 | 3.06 | 7.24 | 0.061 |      | 1.99 |
| 12/12/2011 | 15/12/2011 | 2.92 | 7.34 | 0.055 | 6.46 | 1.88 |
| 14/12/2011 | 22/12/2011 | 2.64 | 7.25 | 0.041 |      | 1.55 |
| 16/12/2011 | 22/12/2011 | 2.53 | 7.31 | 0.035 |      | 1.38 |
| 19/12/2011 | 22/12/2011 | 2.59 | 7.57 | 0.042 | 6.49 | 1.62 |
| 26/12/2011 | 11/1/2012  | 2.35 | 7.25 | 0.046 | 5.31 | 1.96 |
| 2/1/2012   | 11/1/2012  | 2.32 | 7.32 | 0.043 | 6.52 | 1.85 |
| 11/1/2012  | 18/1/2012  | 2.25 | 7.45 | 0.036 |      | 1.60 |
| 13/1/2012  | 18/1/2012  | 2.35 | 7.52 | 0.035 |      | 1.49 |
| 18/1/2012  | 25/1/2012  | 2.17 | 7.39 | 0.039 |      | 1.80 |
| 20/1/2012  | 25/1/2012  | 2.19 | 7.43 | 0.04  |      | 1.83 |
| 24/1/2012  | 25/1/2012  | 2.17 | 7.4  | 0.04  |      | 1.84 |
| 25/1/2012  | 1/2/2012   | 2.12 | 7.65 | 0.036 |      | 1.70 |
| 27/1/2012  | 1/2/2012   | 1.86 | 7.55 | 0.035 |      | 1.88 |
| 30/1/2012  | 1/2/2012   | 1.94 | 7.45 | 0.032 | 8.04 | 1.65 |
| 1/2/2012   | 8/2/2012   | 1.92 | 7.54 | 0.032 |      | 1.67 |
| 3/2/2012   | 8/2/2012   | 1.92 | 7.49 | 0.033 |      | 1.72 |
| 6/2/2012   | 8/2/2012   | 1.92 | 7.53 | 0.036 |      | 1.88 |
| 8/2/2012   | 15/2/2012  | 1.88 | 7.27 | 0.033 |      | 1.76 |
| 10/2/2012  | 15/2/2012  | 1.90 | 7.36 | 0.028 |      | 1.47 |
| 13/2/2012  | 15/2/2012  | 1.79 | 7.49 | 0.028 |      | 1.56 |
| 15/2/2012  | 23/2/2012  | 2.05 | 7.38 | 0.034 |      | 1.66 |
| 17/2/2012  | 23/2/2012  | 1.98 | 7.48 | 0.035 |      | 1.77 |

|            |           |      |      |       |      |      |
|------------|-----------|------|------|-------|------|------|
| 20/2/2012  | 23/2/2012 | 1.85 | 7.66 | 0.037 | 7.6  | 2.00 |
| 22/2/2012  | 29/2/2012 | 1.78 | 7.59 | 0.038 |      | 2.13 |
| 24/2/2012  | 29/2/2012 | 1.94 | 7.74 | 0.039 |      | 2.01 |
| 27/2/2012  | 29/2/2012 | 2.08 | 7.67 | 0.038 |      | 1.83 |
| 29/2/2012  | 7/3/2012  | 2.27 | 7.42 | 0.043 |      | 1.89 |
| 5/3/2012   | 7/3/2012  | 2.46 | 7.64 | 0.033 | 7.45 | 1.34 |
| 7/3/2012   | 14/3/2012 | 2.00 | 7.16 | 0.033 |      | 1.65 |
| 9/3/2012   | 14/3/2012 | 1.93 | 7.34 | 0.031 |      | 1.61 |
| 12/3/2012  | 14/3/2012 | 2.01 | 7.38 | 0.03  |      | 1.49 |
| 14/3/2012  | 22/3/2012 | 2.28 | 7.42 | 0.036 |      | 1.58 |
| 16/3/2012  | 22/3/2012 | 2.31 | 7.62 | 0.038 |      | 1.65 |
| 19/3/2012  | 22/3/2012 | 2.53 | 7.67 | 0.047 | 6.46 | 1.86 |
| 21/3/2012  | 28/3/2012 | 2.63 | 7.87 | 0.043 |      | 1.63 |
| 23/3/2012  | 28/3/2012 | 3.00 | 7.66 | 0.049 |      | 1.63 |
| 26/3/2012  | 28/3/2012 | 2.65 | 7.69 | 0.045 |      | 1.70 |
| 28/3/2012  | 4/4/2012  | 3.41 | 7.62 | 0.053 |      | 1.55 |
| 30/3/2012  | 4/4/2012  | 3.29 | 7.54 | 0.056 |      | 1.70 |
| 2/4/2012   | 4/4/2012  | 3.66 | 7.63 | 0.056 | 5.71 | 1.53 |
| 4/4/2012   | 15/4/2012 | 3.01 | 7.62 | 0.055 |      | 1.83 |
| 6/4/2012   | 15/4/2012 | 3.16 | 7.27 | 0.05  |      | 1.58 |
| 9/4/2012   | 15/4/2012 | 3.08 | 7.32 | 0.051 |      | 1.66 |
| 11/4/2012  | 18/4/2012 | 2.82 | 7.51 | 0.041 |      | 1.45 |
| 13/4/2012  | 18/4/2012 | 2.80 | 7.12 | 0.04  |      | 1.43 |
| 16/4/2012  | 18/4/2012 | 2.86 | 6.99 | 0.037 | 6.06 | 1.29 |
| 24/10/2012 |           | 3.64 |      | 0.066 |      | 1.81 |
| 26/10/2012 |           | 3.81 |      | 0.071 |      | 1.86 |
| 30/10/2012 |           | 5.38 |      | 0.07  | 3.55 | 1.30 |
| 31/10/2012 |           | 3.75 |      | 0.075 |      | 2.00 |
| 2/11/2012  |           | 4.46 |      | 0.078 |      | 1.75 |
| 5/11/2012  |           | 4.49 |      | 0.076 |      | 1.69 |
| 7/11/2012  |           | 3.78 |      | 0.067 |      | 1.77 |
| 9/11/2012  |           | 3.89 |      | 0.072 | 4.9  | 1.85 |
| 14/11/2012 |           | 3.05 |      | 0.061 |      | 2.00 |
| 16/11/2012 |           | 3.26 |      | 0.065 |      | 1.99 |
| 19/11/2012 |           | 3.23 |      | 0.065 |      | 2.01 |
| 21/11/2012 |           | 3.06 |      | 0.057 |      | 1.86 |
| 24/11/2012 |           | 2.97 |      | 0.057 |      | 1.92 |
| 28/11/2012 |           | 3.31 |      | 0.053 |      | 1.60 |
| 30/11/2012 |           | 2.19 |      | 0.038 |      | 1.74 |
| 3/12/2012  |           | 6.50 |      | 0.051 |      | 0.78 |
| 5/12/2012  |           | 3.57 | 7.38 | 0.043 |      | 1.20 |
| 7/12/2012  |           | 3.49 | 7.65 | 0.044 |      | 1.26 |
| 10/12/2012 |           | 3.37 | 7.7  | 0.047 | 6.97 | 1.39 |
| 12/12/2012 |           | 3.27 | 7.5  | 0.044 |      | 1.35 |
| 14/12/2012 |           | 3.59 | 7.52 | 0.06  |      | 1.67 |
| 17/12/2012 |           | 3.36 | 7.47 | 0.059 |      | 1.76 |

Table S8. ACH Fluorescence Data.

| Date       | C1       | C2       | C3       |
|------------|----------|----------|----------|
| 13/11/2009 | 0.250335 | 0.149007 | 0.138412 |
| 16/11/2009 | 0.327378 | 0.187163 | 0.199009 |
| 18/11/2009 | 0.255815 | 0.143612 | 0.151288 |
| 20/11/2009 | 0.280353 | 0.162028 | 0.176536 |
| 23/11/2009 | 0.270991 | 0.16021  | 0.180153 |
| 25/11/2009 | 0.338294 | 0.201635 | 0.202737 |
| 30/11/2009 | 0.323197 | 0.171787 | 0.217252 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 2/12/2009  | 0.370798 | 0.203761 | 0.233934 |
| 4/12/2009  | 0.399732 | 0.224286 | 0.252128 |
| 7/12/2009  | 0.404286 | 0.217664 | 0.213989 |
| 11/12/2009 | 0.430293 | 0.236558 | 0.233973 |
| 14/12/2009 | 0.441514 | 0.258548 | 0.273625 |
| 16/12/2009 | 0.428044 | 0.249276 | 0.265879 |
| 18/12/2009 | 0.44852  | 0.26223  | 0.282009 |
| 23/12/2009 | 0.41045  | 0.238672 | 0.238228 |
| 28/12/2009 | 0.503669 | 0.281965 | 0.289976 |
| 30/12/2009 | 0.335209 | 0.18958  | 0.207031 |
| 8/1/2010   | 0.337994 | 0.186451 | 0.216598 |
| 11/1/2010  | 0.332519 | 0.179055 | 0.248212 |
| 13/1/2010  | 0.337814 | 0.18673  | 0.258283 |
| 16/1/2010  | 0.329242 | 0.19017  | 0.212153 |
| 20/1/2010  | 0.30071  | 0.146586 | 0.17228  |
| 22/1/2010  | 0.265013 | 0.12349  | 0.176725 |
| 25/1/2010  | 0.269974 | 0.1274   | 0.193076 |
| 27/1/2010  | 0.298721 | 0.144385 | 0.240419 |
| 29/1/2010  | 0.258171 | 0.138245 | 0.183785 |
| 8/2/2010   | 0.300303 | 0.15974  | 0.184108 |
| 10/2/2010  | 0.310948 | 0.165152 | 0.216897 |
| 15/2/2010  | 0.274584 | 0.155755 | 0.048202 |
| 17/2/2010  | 0.270273 | 0.147276 | 0.085892 |
| 19/2/2010  | 0.284766 | 0.153683 | 0.15325  |
| 22/2/2010  | 0.275573 | 0.1353   | 0.11218  |
| 24/2/2010  | 0.282517 | 0.135849 | 0.145551 |
| 26/2/2010  | 0.293568 | 0.139564 | 0.127948 |
| 1/3/2010   | 0.307157 | 0.14919  | 0.269638 |
| 3/3/2010   | 0.362973 | 0.190445 | 0.256431 |
| 8/3/2010   | 0.359815 | 0.193028 | 0.260513 |
| 10/3/2010  | 0.322785 | 0.170032 | 0.214762 |
| 17/3/2010  | 0.283415 | 0.166866 | 0.10229  |
| 19/3/2010  | 0.321587 | 0.197384 | 0.147254 |
| 24/3/2010  | 0.291947 | 0.189829 | 0.201862 |
| 26/3/2010  | 0.279873 | 0.173264 | 0.201736 |
| 31/3/2010  | 0.339266 | 0.19641  | 0.042387 |
| 7/4/2010   | 0.277884 | 0.157269 | 0.219844 |
| 14/4/2010  | 0.390449 | 0.217876 | 0.274823 |
| 5/5/2010   | 0.401619 | 0.217281 | 0.266809 |
| 19/5/2010  | 0.456305 | 0.232365 | 0.164077 |
| 2/6/2010   | 0.484216 | 0.272276 | 0.25242  |
| 9/6/2010   | 0.539021 | 0.281312 | 0.367728 |
| 17/6/2010  | 0.410591 | 0.215621 | 0.286146 |
| 30/6/2010  | 0.442101 | 0.213791 | 0.280906 |
| 7/7/2010   | 0.450362 | 0.21949  | 0.375577 |
| 14/7/2010  | 0.462221 | 0.223895 | 0.289858 |
| 21/7/2010  | 0.358425 | 0.17898  | 0.254831 |
| 28/7/2010  | 0.420552 | 0.210188 | 0.280418 |
| 4/8/2010   | 0.307959 | 0.146727 | 0.302434 |
| 11/8/2010  | 0.380426 | 0.189455 | 0.185156 |
| 8/9/2010   | 0.332587 | 0.167315 | 0.235202 |
| 17/9/2010  | 0.344825 | 0.156287 | 0.092519 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 20/9/2010  | 0.298399 | 0.148321 | 0.259268 |
| 22/9/2010  | 0.271641 | 0.099387 | 0.192989 |
| 24/9/2010  | 0.317993 | 0.149365 | 0.229064 |
| 27/9/2010  | 0.290122 | 0.143308 | 0.258078 |
| 1/10/2010  | 0.31036  | 0.152335 | 0.28695  |
| 6/10/2010  | 0.335977 | 0.148375 | 0.312537 |
| 8/10/2010  | 0.343396 | 0.158687 | 0.265162 |
| 11/10/2010 | 0.326824 | 0.163005 | 0.193186 |
| 13/10/2010 | 0.348198 | 0.182907 | 0.249465 |
| 15/10/2010 | 0.342673 | 0.180282 | 0.244099 |
| 18/10/2010 | 0.338441 | 0.19708  | 0.302332 |
| 20/10/2010 | 0.357622 | 0.196281 | 0.226613 |
| 22/10/2010 | 0.334859 | 0.182624 | 0.265792 |
| 25/10/2010 | 0.341944 | 0.191664 | 0.216054 |
| 27/10/2010 | 0.361481 | 0.197592 | 0.235226 |
| 1/11/2010  | 0.358221 | 0.193199 | 0.273759 |
| 3/11/2010  | 0.358843 | 0.20151  | 0.419169 |
| 5/11/2010  | 0.3423   | 0.184467 | 0.253208 |
| 8/11/2010  | 0.317112 | 0.157647 | 0.178498 |
| 10/11/2010 | 0.341181 | 0.167752 | 0.31531  |
| 12/11/2010 | 0.341785 | 0.171421 | 0.198529 |
| 15/11/2010 | 0.352023 | 0.190495 | 0.241821 |
| 19/11/2010 | 0.347769 | 0.179209 | 0.222752 |
| 22/11/2010 | 0.354408 | 0.173143 | 0.158617 |
| 23/11/2010 | 0.361668 | 0.180307 | 0.24941  |
| 24/11/2010 | 0.347916 | 0.167336 | 0.174353 |
| 29/11/2010 | 0.36108  | 0.200158 | 0.206763 |
| 1/12/2010  | 0.396071 | 0.223816 | 0.266045 |
| 3/12/2010  | 0.37829  | 0.230984 | 0.295169 |
| 6/12/2010  | 0.356639 | 0.229129 | 0.275012 |
| 8/12/2010  | 0.392393 | 0.272742 | 0.275666 |
| 10/12/2010 | 0.30827  | 0.189305 | 0.204305 |
| 15/12/2010 | 0.306433 | 0.178622 | 0.202555 |
| 17/12/2010 | 0.287105 | 0.162186 | 0.205116 |
| 21/12/2010 | 0.302902 | 0.167324 | 0.199348 |
| 22/12/2010 | 0.323321 | 0.169428 | 0.253492 |
| 24/12/2010 | 0.311501 | 0.186206 | 0.206818 |
| 27/12/2010 | 0.302665 | 0.162785 | 0.191862 |
| 29/12/2010 | 0.326734 | 0.187283 | 0.222035 |
| 31/12/2010 | 0.301896 | 0.163954 | 0.203737 |
| 5/1/2011   | 0.260657 | 0.152248 | 0.179215 |
| 7/1/2011   | 0.232995 | 0.142688 | 0.172982 |
| 10/1/2011  | 0.205513 | 0.111833 | 0.222287 |
| 12/1/2011  | 0.238905 | 0.127009 | 0.186197 |
| 14/1/2011  | 0.244447 | 0.13473  | 0.148798 |
| 17/1/2011  | 0.260538 | 0.158637 | 0.2154   |
| 19/1/2011  | 0.267799 | 0.155501 | 0.190594 |
| 21/1/2011  | 0.252018 | 0.150667 | 0.213319 |
| 24/1/2011  | 0.237006 | 0.134118 | 0.167489 |
| 26/1/2011  | 0.262516 | 0.152905 | 0.141588 |
| 28/1/2011  | 0.24091  | 0.133395 | 0.171012 |
| 31/1/2011  | 0.256499 | 0.147306 | 0.170791 |

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|           |          |          |          |
|-----------|----------|----------|----------|
| 2/2/2011  | 0.267392 | 0.153675 | 0.193454 |
| 4/2/2011  | 0.248651 | 0.152992 | 0.144417 |
| 7/2/2011  | 0.241148 | 0.129384 | 0.14827  |
| 11/2/2011 | 0.22639  | 0.120153 | 0.166142 |
| 14/2/2011 | 0.230729 | 0.125911 | 0.129421 |
| 18/2/2011 | 0.232079 | 0.12131  | 0.088626 |
| 21/2/2011 | 0.216011 | 0.106779 | 0.007557 |
| 23/2/2011 | 0.217282 | 0.105302 | 0        |
| 25/2/2011 | 0.20901  | 0.106417 | 0.000559 |
| 7/3/2011  | 0.188755 | 0.095576 | 0.173959 |
| 9/3/2011  | 0.198225 | 0.08471  | 0.138688 |
| 11/3/2011 | 0.174127 | 0.069301 | 0.136545 |
| 15/3/2011 | 0.18154  | 0.092132 | 0.121935 |
| 16/3/2011 | 0.203496 | 0.101541 | 0.138523 |
| 18/3/2011 | 0.153742 | 0.06463  | 0.117057 |
| 21/3/2011 | 0.178512 | 0.074822 | 0.084852 |
| 23/3/2011 | 0.227011 | 0.124409 | 0.176677 |
| 25/3/2011 | 0.220243 | 0.120241 | 0.169656 |
| 28/3/2011 | 0.21596  | 0.11804  | 0.163794 |
| 30/3/2011 | 0.210751 | 0.091445 | 0.131549 |
| 4/4/2011  | 0.229848 | 0.121326 | 0.120209 |
| 6/4/2011  | 0.231452 | 0.116027 | 0.145433 |
| 8/4/2011  | 0.276929 | 0.166196 | 0.202603 |
| 11/4/2011 | 0.305433 | 0.187628 | 0.161682 |
| 14/4/2011 | 0.317129 | 0.194027 | 0.194935 |
| 15/4/2011 | 0.295642 | 0.171999 | 0.174274 |
| 18/4/2011 | 0.319197 | 0.175652 | 0.266525 |
| 20/4/2011 | 0.351345 | 0.224815 | 0.270024 |
| 22/4/2011 | 0.367583 | 0.208732 | 0.213989 |
| 25/4/2011 | 0.297958 | 0.190873 | 0.207283 |
| 27/4/2011 | 0.337672 | 0.20748  | 0.21358  |
| 29/4/2011 | 0.329632 | 0.213267 | 0.206763 |
| 2/5/2011  | 0.346854 | 0.223741 | 0.20633  |
| 4/5/2011  | 0.365369 | 0.233122 | 0.215132 |
| 6/5/2011  | 0.367323 | 0.240485 | 0.209781 |
| 9/5/2011  | 0.389099 | 0.270695 | 0.240781 |
| 11/5/2011 | 0.44118  | 0.300652 | 0.272191 |
| 13/5/2011 | 0.373064 | 0.205234 | 0.232996 |
| 16/5/2011 | 0.427287 | 0.26552  | 0.24049  |
| 18/5/2011 | 0.514992 | 0.345421 | 0.290362 |
| 20/5/2011 | 0.407896 | 0.277044 | 0.233658 |
| 23/5/2011 | 0.45982  | 0.319247 | 0.254051 |
| 25/5/2011 | 0.484442 | 0.33     | 0.327516 |
| 27/5/2011 | 0.489177 | 0.328149 | 0.355215 |
| 3/6/2011  | 0.550056 | 0.36868  | 0.325058 |
| 8/6/2011  | 0.506257 | 0.325978 | 0.288313 |
| 10/6/2011 | 0.41545  | 0.230535 | 0.26134  |
| 15/6/2011 | 0.423756 | 0.242678 | 0.239174 |
| 17/6/2011 | 0.511466 | 0.308543 | 0.25796  |
| 20/6/2011 | 0.414586 | 0.266897 | 0.161154 |
| 22/6/2011 | 0.333282 | 0.209344 | 0.130185 |
| 24/6/2011 | 0.293212 | 0.172178 | 0.113456 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 30/6/2011  | 0.377522 | 0.218804 | 0.154251 |
| 1/7/2011   | 0.418479 | 0.244878 | 0.177986 |
| 6/7/2011   | 0.432666 | 0.261406 | 0.260253 |
| 9/7/2011   | 0.389618 | 0.224395 | 0.253626 |
| 11/7/2011  | 0.389212 | 0.24638  | 0.382613 |
| 13/7/2011  | 0.499426 | 0.2754   | 0.311236 |
| 15/7/2011  | 0.462814 | 0.245423 | 0.275059 |
| 18/7/2011  | 0.42336  | 0.229262 | 0.249418 |
| 20/7/2011  | 0.446666 | 0.240531 | 0.280126 |
| 27/7/2011  | 0.380307 | 0.212439 | 0.199845 |
| 3/8/2011   | 0.245323 | 0.085829 | 0.112818 |
| 8/8/2011   | 0.316886 | 0.176334 | 0.14251  |
| 10/8/2011  | 0.334503 | 0.201124 | 0.173297 |
| 17/8/2011  | 0.317168 | 0.176675 | 0.169727 |
| 20/8/2011  | 0.33448  | 0.185823 | 0.178947 |
| 22/8/2011  | 0.33487  | 0.188631 | 0.15184  |
| 24/8/2011  | 0.351436 | 0.200379 | 0.236258 |
| 26/8/2011  | 0.352741 | 0.206939 | 0.24937  |
| 29/8/2011  | 0.345401 | 0.195624 | 0.239394 |
| 31/8/2011  | 0.38042  | 0.213462 | 0.208852 |
| 2/9/2011   | 0.400037 | 0.227664 | 0.301276 |
| 5/9/2011   | 0.408252 | 0.242457 | 0.364466 |
| 9/9/2011   | 0.370245 | 0.214044 | 0.268007 |
| 12/9/2011  | 0.396042 | 0.201748 | 0.223043 |
| 14/9/2011  | 0.318355 | 0.175764 | 0.201602 |
| 16/9/2011  | 0.440395 | 0.260083 | 0.29342  |
| 19/9/2011  | 0.479838 | 0.296437 | 0.360975 |
| 21/9/2011  | 0.471283 | 0.271012 | 0.266021 |
| 23/9/2011  | 0.479233 | 0.27716  | 0.291103 |
| 26/9/2011  | 0.482759 | 0.264568 | 0.285217 |
| 28/9/2011  | 0.458656 | 0.276711 | 0.41712  |
| 30/9/2011  | 0.480487 | 0.282443 | 0.326531 |
| 3/10/2011  | 0.503274 | 0.300323 | 0.297202 |
| 5/10/2011  | 0.451062 | 0.273062 | 0.209411 |
| 7/10/2011  | 0.453639 | 0.283916 | 0.263964 |
| 10/10/2011 | 0.454627 | 0.279103 | 0.245754 |
| 12/10/2011 | 0.461639 | 0.27793  | 0.233894 |
| 14/10/2011 | 0.461255 | 0.284956 | 0.229403 |
| 17/10/2011 | 0.494663 | 0.299383 | 0.251884 |
| 19/10/2011 | 0.475527 | 0.299474 | 0.286351 |
| 21/10/2011 | 0.473679 | 0.302877 | 0.280567 |
| 24/10/2011 | 0.503409 | 0.352943 | 0.297431 |
| 26/10/2011 | 0.439982 | 0.301995 | 0.239497 |
| 28/10/2011 | 0.453096 | 0.321988 | 0.26725  |
| 31/10/2011 | 0.480013 | 0.314812 | 0.093071 |
| 2/11/2011  | 0.427513 | 0.272193 | 0.044246 |
| 4/11/2011  | 0.417371 | 0.260857 | 0.056437 |
| 7/11/2011  | 0.422569 | 0.262716 | 0.045003 |
| 14/11/2011 | 0.403619 | 0.235976 | 0.235596 |
| 21/11/2011 | 0.371634 | 0.220609 | 0.235376 |
| 23/11/2011 | 0.350667 | 0.210504 | 0.214399 |
| 25/11/2011 | 0.349938 | 0.206394 | 0.217196 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 28/11/2011 | 0.367453 | 0.220488 | 0.242326 |
| 2/12/2011  | 0.317411 | 0.175847 | 0.177071 |
| 5/12/2011  | 0.314129 | 0.178801 | 0.155149 |
| 7/12/2011  | 0.276285 | 0.160019 | 0.255887 |
| 9/12/2011  | 0.298603 | 0.179363 | 0.260923 |
| 12/12/2011 | 0.273149 | 0.161949 | 0.393212 |
| 14/12/2011 | 0.272782 | 0.148362 | 0.147238 |
| 16/12/2011 | 0.27098  | 0.144007 | 0.211121 |
| 19/12/2011 | 0.28819  | 0.159157 | 0.169207 |
| 26/12/2011 | 0.278828 | 0.16536  | 0.16466  |
| 2/1/2012   | 0.267149 | 0.15657  | 0.15221  |
| 11/1/2012  | 0.254273 | 0.143857 | 0.14946  |
| 13/1/2012  | 0.261759 | 0.134422 | 0.152399 |
| 18/1/2012  | 0.228989 | 0.120236 | 0.17202  |
| 20/1/2012  | 0.243402 | 0.123402 | 0.190909 |
| 24/1/2012  | 0.238718 | 0.135029 | 0.168151 |
| 25/1/2012  | 0.234368 | 0.127017 | 0.140879 |
| 27/1/2012  | 0.216576 | 0.114808 | 0.139744 |
| 30/1/2012  | 0.208801 | 0.110398 | 0.121139 |
| 1/2/2012   | 0.201795 | 0.098409 | 0.128531 |
| 3/2/2012   | 0.214033 | 0.10942  | 0.117412 |
| 6/2/2012   | 0.216768 | 0.107952 | 0.114362 |
| 8/2/2012   | 0.217389 | 0.112998 | 0.12872  |
| 10/2/2012  | 0.229023 | 0.126714 | 0.184762 |
| 13/2/2012  | 0.23178  | 0.122591 | 0.129665 |
| 15/2/2012  | 0.233447 | 0.143212 | 0.006391 |
| 17/2/2012  | 0.233616 | 0.13084  | 0.215061 |
| 20/2/2012  | 0.240571 | 0.130295 | 0.166457 |
| 22/2/2012  | 0.231729 | 0.124987 | 0.175795 |
| 24/2/2012  | 0.245125 | 0.13587  | 0.171453 |
| 27/2/2012  | 0.237554 | 0.127862 | 0.184707 |
| 29/2/2012  | 0.210231 | 0.121967 | 0        |
| 5/3/2012   | 0.24825  | 0.147214 | 0.212137 |
| 7/3/2012   | 0.230718 | 0.142255 | 0.161705 |
| 9/3/2012   | 0.22313  | 0.133132 | 0.152974 |
| 12/3/2012  | 0.221633 | 0.135649 | 0.161162 |
| 14/3/2012  | 0.249007 | 0.135945 | 0.035011 |
| 16/3/2012  | 0.256623 | 0.133195 | 0.141974 |
| 19/3/2012  | 0.287427 | 0.171438 | 0.019243 |
| 21/3/2012  | 0.283534 | 0.167665 | 0.132431 |
| 23/3/2012  | 0.295546 | 0.181601 | 0.143361 |
| 26/3/2012  | 0.314784 | 0.182345 | 0.155496 |
| 28/3/2012  | 0.335011 | 0.191048 | 0.156615 |
| 30/3/2012  | 0.358781 | 0.205479 | 0.207575 |
| 2/4/2012   | 0.352526 | 0.200653 | 0.222886 |
| 4/4/2012   | 0.36538  | 0.210367 | 0.225707 |
| 6/4/2012   | 0.346311 | 0.199098 | 0.22079  |
| 9/4/2012   | 0.333452 | 0.183281 | 0.205109 |
| 11/4/2012  | 0.328435 | 0.172894 | 0.199963 |
| 13/4/2012  | 0.314315 | 0.170057 | 0.194337 |
| 16/4/2012  | 0.281794 | 0.143129 | 0.164203 |
| 26/10/2012 | 0.40189  | 0.337567 | 0.244107 |

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|            |          |          |          |
|------------|----------|----------|----------|
| 30/10/2012 | 0.405913 | 0.253161 | 0.272073 |
| 31/10/2012 | 0.43214  | 0.27612  | 0.328982 |
| 2/11/2012  | 0.465826 | 0.274452 | 0.356397 |
| 5/11/2012  | 0.37942  | 0.22261  | 0.320409 |
| 7/11/2012  | 0.35591  | 0.235269 | 0.264453 |
| 9/11/2012  | 0.385889 | 0.258656 | 0.30275  |
| 14/11/2012 | 0.343605 | 0.220601 | 0.20135  |
| 16/11/2012 | 0.380183 | 0.245548 | 0.268282 |
| 19/11/2012 | 0.375115 | 0.278566 | 0.254871 |
| 21/11/2012 | 0.353741 | 0.212451 | 0.283097 |
| 24/11/2012 | 0.342689 | 0.214248 | 0.200956 |
| 28/11/2012 | 0.379324 | 0.225759 | 0.222295 |
| 30/11/2012 | 0.278737 | 0.157444 | 0.153818 |
| 3/12/2012  | 0.352893 | 0.180315 | 0.215219 |
| 5/12/2012  | 0.289918 | 0.134202 | 0.245738 |
| 7/12/2012  | 0.265674 | 0.118364 | 0.207811 |
| 10/12/2012 | 0.348509 | 0.209489 | 0.457387 |
| 12/12/2012 | 0.286839 | 0.152177 | 0.358461 |
| 14/12/2012 | 0.395037 | 0.235539 | 0.236967 |
| 17/12/2012 | 0.364267 | 0.228022 | 0.2548   |

**Table S9.** ACH DBP Data.

| <b>Date</b> | <b>THM</b> | <b>HAA</b> |
|-------------|------------|------------|
| 22/9/2010   | 84.1       | 92.6       |
| 29/9/2010   | 54.6       | 60.8       |
| 6/10/2010   | 56.4       | 59.9       |
| 13/10/2010  | 89.7       | 69.6       |
| 20/10/2010  | 62.6       | 72.1       |
| 27/10/2010  | 62.6       | 67.6       |
| 3/11/2010   | 73.0       | 62.3       |
| 10/11/2010  | 64.0       |            |
| 17/11/2010  | 77.5       | 42.4       |
| 24/11/2010  | 79.2       | 51.2       |
| 1/12/2010   | 102.3      | 75.8       |
| 8/12/2010   | 120.0      | 91.7       |
| 15/12/2010  | 67.5       | 65.9       |
| 22/12/2010  | 68.2       | 51.2       |
| 29/12/2010  | 66.5       | 58.8       |
| 5/1/2011    | 58.5       | 61.6       |
| 12/1/2011   | 56.1       | 66.8       |
| 19/1/2011   | 58.2       | 60.6       |
| 26/1/2011   | 57.7       | 55.7       |
| 2/2/2011    | 58.9       | 46.7       |
| 9/2/2011    | 65.3       | 44.9       |
| 16/2/2011   | 77.7       | 63.3       |
| 23/2/2011   | 85.2       | 85.9       |
| 2/3/2011    | 59.5       | 48.4       |
| 9/3/2011    | 106.1      | 118.8      |
| 16/3/2011   | 60.0       | 62.6       |
| 23/3/2011   | 70.5       | 64.9       |
| 30/3/2011   | 95.6       | 167.4      |
| 6/4/2011    | 59.8       | 60.1       |

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|            |       |       |
|------------|-------|-------|
| 14/4/2011  | 83.7  | 97.8  |
| 20/4/2011  | 89.9  | 79.1  |
| 27/4/2011  | 86.5  | 86.2  |
| 4/5/2011   | 101.2 | 101.1 |
| 11/5/2011  | 181.5 | 150.6 |
| 18/5/2011  | 153.0 | 179.2 |
| 25/5/2011  | 185.7 | 132.4 |
| 1/6/2011   | 176.3 | 165.6 |
| 8/6/2011   | 171.2 | 148.7 |
| 15/6/2011  | 111.5 | 85.0  |
| 22/6/2011  | 142.3 | 102.2 |
| 30/6/2011  | 150.1 | 92.0  |
| 6/7/2011   | 159.5 | 108.5 |
| 13/7/2011  | 131.2 | 91.2  |
| 20/7/2011  | 106.4 | 73.0  |
| 27/7/2011  | 121.5 | 79.7  |
| 3/8/2011   | 148.7 | 149.3 |
| 10/8/2011  | 90.4  | 54.0  |
| 22/8/2011  | 104.7 | 59.8  |
| 29/8/2011  | 101.5 | 67.4  |
| 5/9/2011   | 109.3 | 79.0  |
| 12/9/2011  | 237.7 | 240.0 |
| 19/9/2011  | 130.9 | 98.2  |
| 26/9/2011  | 142.4 | 94.3  |
| 3/10/2011  | 136.2 | 91.0  |
| 10/10/2011 | 160.3 | 100.6 |
| 17/10/2011 | 175.2 | 111.4 |
| 24/10/2011 | 206.7 | 133.8 |
| 31/10/2011 | 165.5 | 113.2 |
| 7/11/2011  | 163.1 | 120.0 |
| 14/11/2011 | 155.3 | 108.3 |
| 21/11/2011 | 139.5 | 110.8 |
| 28/11/2011 | 148.4 | 114.8 |
| 5/12/2011  | 118.6 | 117.3 |
| 12/12/2011 | 123.3 | 95.1  |
| 19/12/2011 | 119.5 | 84.5  |
| 26/12/2011 | 78.8  | 62.2  |
| 2/1/2012   | 77.1  | 61.3  |
| 30/1/2012  | 56.1  | 46.6  |
| 20/2/2012  | 73.3  | 53.1  |
| 5/3/2012   | 74.6  | 55.8  |
| 19/3/2012  | 92.7  | 71.6  |
| 2/4/2012   | 119.6 | 93.2  |
| 16/4/2012  | 71.0  | 68.8  |
| 30/10/2012 | 116.9 | 85.5  |
| 9/11/2012  | 103.4 | 123.9 |
| 10/12/2012 | 167.1 | 184.7 |

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