

Appendix A. Continued

| Date | Time | Air Temp | Water Temp | Depth M | Flow f/s | pH | DO mg/L | Oxygen Sat % | Field TDS mg/L | Cond mS/cm | Battery (V) | Fecal Coliforms col/100ml | Total Hardness mg/l | Total Alkalinity mg/l | P. Alkalinity mg/L | BOD mg/l | COD mg/l | TSS mg/l | TDS mg/l | Turbidity N.T.U | Calcium mg/l | Chloride mg/l | Magnesium mg/l | Nitrate mg/L | Phosphate mg/L | Sulfate | Ammonia | Nitrite | Nitrogen | |
|------------|-------|----------|------------|---------|----------|------|---------|--------------|----------------|------------|-------------|---------------------------|---------------------|-----------------------|--------------------|----------|----------|----------|----------|-----------------|--------------|---------------|----------------|--------------|----------------|------------|------------|------------|------------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | total mg/L | total mg/L | total mg/L | total mg/L | |
| 9/18/1993 | 11:45 | 30 | 26.9 | 0.1 | | 8.1 | 8.2 | 98 | 680 | 1060 | | 50 | 282 | 144 | 2 | 3 | 18 | 42 | 665 | 32 | 92 | 100 | | | | | | | | |
| 10/16/1993 | 8:30 | 26 | 26.1 | 0.2 | 4 | 8.49 | 7.4 | 91.9 | 685 | | 12.5 | 195 | 268 | 127 | 6 | 3 | <5 | 43 | 599 | 49 | 89 | 96 | 12 | | | | | | | |
| 11/20/1993 | 10:07 | | 17.7 | 0.3 | 2 | 7.7 | 10.3 | 112 | 680 | 1060 | 11.4 | 40 | | 132 | 5 | 1 | | 36 | 798 | 21.7 | 94 | 113 | | | | | | | | |
| 12/18/1993 | 11:00 | 13.5 | 15.9 | 0.6 | 4.3 | 7.85 | 8.7 | 93.7 | 767 | 1118 | 10.9 | 55 | | 135 | 6 | 2 | | 37 | 720 | 18.3 | 98 | 99 | | | | | | | | |
| 1/22/1994 | 8:55 | 10.5 | 12.5 | 0.7 | 3.8 | 8.8 | 10.1 | 94.3 | 720 | 1123 | 14.4 | 1 | 272 | 130 | 7 | 2 | | 42 | 730 | 22.7 | 94 | 110 | 20 | | | | | | | |
| 2/26/1994 | | 12 | 16.8 | 0.7 | 3 | 8.15 | 9.18 | 95.3 | 764 | 1205 | | 90 | 290 | 132 | 7 | 3 | 9 | 53 | 779 | 13 | 88 | 111 | 17 | | | | | | | |
| 3/19/1994 | | 23 | 19.3 | 0.7 | 4 | 8.09 | 8.32 | 90.9 | 711 | 1120 | 13.4 | 82 | 270 | 126 | 7 | 1 | 7 | 41 | 770 | 10 | 83 | 119 | 16 | | | | | | | |
| 4/23/1994 | 9:27 | 23 | 21 | 0.5 | | 8.6 | 8.54 | 96.5 | 771 | 1205 | 12.5 | 90 | 281 | 129 | 8 | 2 | | 194 | 777 | 102 | 81 | 113 | 20 | | | | | | | |
| 6/2/1994 | 11:35 | 31.5 | 28.5 | 0.9 | 4.1 | 7.7 | 7.4 | 94 | | | | | | | | | | | | | | | | | | | | | | |
| 6/25/1994 | 9:20 | 32.5 | 32 | 0.41 | 2 | 9.5 | 6.8 | 88 | 600 | | | 112 | 280 | 178 | 6 | 2 | 14 | 64 | 754 | 36 | 94 | 117 | 24 | | | | | | | |
| 7/23/1994 | 13:34 | 38 | 31 | 0.3 | 1.7 | 8.2 | 7.5 | 97 | 600 | | | 12 | 300 | 145 | 8 | 1 | | 74 | 598 | 65 | 75 | 25 | 98 | | | | | | | |
| 8/27/1994 | 13:00 | 33 | 29 | 0.3 | 1.7 | 8.2 | 7.3 | 96 | 840 | 1170 | | | | 140 | | | | | | | | | 0.02 | 0.01 | | | | | | |
| 9/17/1994 | 9:34 | 25 | 26.5 | 0.3 | 5 | 8.2 | 6.6 | 79 | 690 | 980 | | 2200 | 232 | 104 | 6 | 2 | | 580 | 688 | 381 | 63 | 63 | 18 | | | | | | | |
| 10/22/1994 | 1:20 | 31 | 27.36 | 0.3 | 2.2 | 8.2 | 8.2 | 104.6 | 830 | 1296 | 13.1 | | 290 | 126 | 12 | 1 | | 30 | 776 | 27 | 79 | 92 | 22 | | | | | | | |
| 11/19/1994 | 9:55 | 25.8 | 20.6 | 0.3 | 2 | | 9 | 105 | 826 | 1294 | 12.5 | 19 | 290 | 134 | 11 | | 5 | 32 | 800 | 22 | 82 | | 21 | | | | | | | |
| 12/17/1994 | 9:15 | 14 | 17.3 | 0.5 | 1.5 | 8.5 | 10 | 104 | 750 | 1170 | 11.7 | 18 | | 136 | | | | 9 | 25 | 790 | 13 | 83 | | | | | | | | |
| 1/21/1995 | 9:44 | 16.7 | 13.7 | 0.3 | 2 | 8.3 | 11 | 108 | 810 | 1270 | 10.5 | 6 | | 122 | | | | 16 | 764 | 13 | | 125 | | | | | | | | |
| 2/25/1995 | 9:55 | 21 | 18.98 | 0.3 | 2 | 8 | 9.58 | 100.8 | 840 | 1318 | 10.7 | 10 | | 132 | | | | 25 | 806 | 20 | | 145 | | 5 | 0.07 | 240 | 0.1 | 0.1 | 1 | |
| 3/25/1995 | 8:50 | 24 | 23 | 0.3 | 2.6 | 7.9 | 8.8 | 101 | 845 | 1320 | 9.2 | 18 | | 136 | | | | 111 | 832 | 98 | | | | | | | | | | |
| 4/29/1995 | 10:00 | 27 | 22.6 | 0.3 | 3.1 | 8.12 | 8.09 | 94.3 | 797 | 1244 | | 0 | | 127 | | | | 52 | 848 | 40 | | 100 | | 0.1 | 0.08 | 253 | 0.11 | 0.1 | 3 | |
| 5/20/1995 | 9:00 | 24 | 26.24 | 0.3 | 3 | 8.34 | 7.22 | 89.8 | 820 | 1280 | 11.7 | 15 | | 124 | | | | 24 | 862 | 19 | | 121 | 200 | 1 | 0.05 | 257 | 0.1 | 0.1 | 1 | |
| 6/17/1995 | 9:15 | 26 | 26.24 | 0.3 | 3.7 | 8.7 | 7.47 | 92.6 | 793 | 1243 | 11.7 | 32 | | | | | | 44 | | | | | | | | | | | | |
| 7/15/1995 | 9:15 | 26 | 28.8 | 0.3 | 2 | 8.2 | 7.31 | 93.8 | 808 | 1260 | 11.4 | 480 | | | | | | | | | | | | | | | | | | |
| 8/19/1995 | 11:30 | 31 | 29.05 | 0.3 | 2 | 8.2 | 7.62 | 96.2 | 811 | 1264 | 15.3 | 79 | | | | | | | | | | | | | | | | | | |
| 9/23/1995 | 9:15 | 20 | 20.4 | 0.3 | 4 | 7.95 | 7.71 | 85.6 | 810 | 1280 | 10.3 | 1909 | | | | | | | | | | | | | | | | | | |
| 10/ | | | | | | | | | | | | 11 | | | | | | | | | | | 1 | 0.07 | 258 | 0.43 | | | 1 | |
| 11/28/1995 | 8:00 | 15 | 17.8 | 0.3 | 2.08 | 8.35 | 9.06 | 95.9 | 700 | 1260 | 11.4 | | | | | | | | | | | | | | | | | | | |
| 12/16/1995 | 9:34 | 13.9 | 17.03 | 0.293 | 1.96 | 8.42 | 9.95 | 103.5 | 700 | 1103 | 11 | 19 | | | | | | | | | | | | | | | | | | |

| Date | Time | Air | Water | Depth | Flow | pH | DO | Oxygen | Field | Cond | Battery | Fecal | Total | Total | P. | BOD | COD | TSS | Lab | Turbidity | Calcium | Chloride | Magnesium | Nitrate | Phosphate | Sulfate | Ammonia | Nitrite | Nitrogen |
|------------|-------|------|-------|-------|------|------|------|--------|-------|------|---------|-------|-------|-----------|----------|-----|-----|------------|------------|-----------|---------|----------|-----------|---------|-----------|---------|---------|---------|----------|
| | | Temp | Temp | M | f/s | | mg/l | Sat % | mg/l | | | mS/cm | (V) | col/100ml | Hardness | | | Alkalinity | Alkalinity | | mg/L | mg/l | mg/l | mg/l | N.T.U. | mg/l | mg/l | mg/l | mg/L |
| 9/18/1993 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10/16/1993 | 17:45 | | 28.4 | 0.1 | | 8.48 | 7.7 | 97 | 684 | 1036 | 12.5 | | | | | | | | | | | | | | | | | | |
| 11/20/1993 | 15:45 | | 18 | 0.4 | | 7.7 | 8.6 | 98 | 698 | 1060 | 11.4 | 260 | | 130 | 7 | 1 | | 38 | 740 | 19.6 | 96 | 113 | | | | | | | |
| 12/18/1993 | 13:40 | 12 | 16.1 | 2.2 | 3.3 | 8.31 | 7.84 | 78 | 768 | 1201 | 10.6 | 3636 | | 135 | 8 | 1 | | 43 | 721 | 21 | 89 | 105 | | | | | | | |
| 1/22/1994 | 13:10 | 10.1 | 13 | 0.9 | 2.7 | 8.81 | 9.03 | 93.2 | 730 | 1145 | 14.3 | 3800 | 282 | 135 | 6 | 3 | | 40 | 747 | 20.7 | 80 | 112 | 20 | | | | | | |
| 2/26/1994 | 13:40 | 12.5 | 16.8 | 0.8 | 2.9 | 8.06 | 9.26 | 95.8 | 776 | 1211 | | 1530 | 292 | 131 | 9 | 4 | 9 | 46 | 782 | 21 | 86 | 111 | 19 | | | | | | |
| 3/19/1994 | | 32 | 19.7 | 0.6 | 2.9 | 8.1 | 8.2 | 91.1 | 681 | 1065 | | 2880 | 255 | 118 | 6 | 3 | 7 | 52 | 773 | 12 | 84 | 94 | 12 | | | | | | |
| 4/23/1994 | 14:30 | 33 | 22.2 | 0.5 | 4 | 8.6 | 8.36 | 96.4 | 768 | 1200 | 12.5 | 2900 | 281 | 130 | 8 | 3 | | 131 | 777 | 44 | 83 | 112 | 18 | | | | | | |
| 6/2/1994 | 14:15 | 34.5 | 30 | 0.9 | 2.7 | 8.1 | 6.9 | 88 | | | | | | | | | | | | | | | | | | | | | |
| 6/25/1994 | 11:40 | 35 | 33 | 0.2 | 2.9 | 9.7 | 8.6 | 111 | 580 | | | 255 | 264 | 125 | 4 | 2 | 12 | 63 | 789 | 46 | 93 | 118 | 23 | | | | | | |
| 7/23/1994 | 15:25 | 37 | 30.5 | 0.3 | 2.2 | 8.2 | 7.6 | 97 | 610 | | | 305 | 298 | 165 | 9 | 2 | | 65 | 621 | 69 | 74 | 97 | 17 | | | | | | |
| 8/27/1994 | 16:00 | 37 | 31 | 0.3 | 2.5 | 8.2 | 6.4 | 83 | 820 | 1120 | | | | 138 | | | | | | | | | 0.12 | 1.5 | | | | | |
| 9/17/1994 | 11:50 | 26 | 27 | 0.3 | 4 | 8 | 6.1 | 75 | 670 | | | 5200 | 234 | 104 | 8 | 3 | | 736 | 670 | 423 | 65 | 64 | 18 | | | | | | |
| 10/22/1994 | 15:10 | 37 | 28.2 | 0.3 | 2.2 | 8.14 | 7.59 | 98 | 827 | 1290 | 13.1 | 760 | 290 | 126 | 10 | 2 | | 44 | 776 | 38 | 76 | 100 | 23 | | | | | | |
| 11/19/1994 | 11:40 | 28 | 21.7 | 0.3 | 0.9 | 8.3 | 9 | 102 | 835 | 1305 | 11.4 | 1307 | 284 | 138 | 11 | | 6 | 30 | 790 | 26 | 85 | | 18 | | | | | | |
| 12/17/1994 | 11:00 | 16.5 | 17.5 | 0.5 | 2.2 | 8.3 | 9 | 98 | 770 | 1200 | | 7600 | | 136 | | | 15 | 30 | 794 | 23 | 88 | | | | | | | | |
| 1/21/1995 | 11:35 | 20.7 | 14.6 | 0.3 | 2.4 | 8.4 | 11 | 105 | 830 | 1290 | 10 | 5200 | | 118 | | | | 20 | 764 | 14 | | 130 | | | | | | | |
| 2/25/1995 | 12:15 | 22 | 19.46 | 0.3 | 2.5 | 8 | 9.4 | 98.9 | 849 | 1325 | 10.4 | 8559 | | 136 | | | | 26 | 802 | 19 | | 145 | 5 | 0.06 | 260 | 0.14 | 0.1 | 1 | |
| 3/25/1995 | 11:00 | 27.5 | 23.75 | 0.3 | 2 | 8 | 8.7 | 99.6 | 850 | 1323 | 9.1 | 1351 | | 134 | | | | 123 | 806 | 109 | | | | | | | | | |
| 4/29/1995 | 13:20 | 31 | 23.93 | 0.3 | 2.16 | 8.16 | 8.11 | 97.2 | 800 | 1250 | 12.5 | 0 | 125 | | | | | 54 | 848 | 44 | | 100 | 2 | 0.14 | 256 | 0.1 | 0.1 | 3 | |
| 5/20/1995 | 10:25 | 27 | 26.64 | 0.3 | 3.6 | 8.35 | 7.79 | 97 | 830 | 1290 | 11.9 | 22 | | 124 | | | | 11 | 866 | 11 | | 112 | 185 | 1 | 0.09 | 291 | 0.23 | 0.1 | 1 |
| 6/17/1995 | 10:55 | 30 | 27.25 | 0.3 | 4.8 | 8.6 | 7.14 | 89.1 | 809 | 1262 | 11.8 | 800 | | | | | | 50 | | | | | | | | | | | |
| 7/15/1995 | 11:00 | 30 | 28.99 | 0.3 | 2.5 | 7.96 | 6.17 | 77.5 | 687 | 1070 | 11.4 | 38000 | | | | | | | | | | | | | | | | | |
| 8/19/1995 | 13:22 | 35 | 30.05 | 0.3 | 2.5 | 8.1 | 6.26 | 83.5 | 816 | 1275 | 14.8 | 25600 | | | | | | | | | | | | | | | | | |
| 9/23/1995 | 12:50 | 24.5 | 20.9 | 0.3 | 4 | 7.92 | 7.67 | 86.1 | 720 | 1015 | 10.4 | 727 | | | | | | | | | | | | | | | | | |
| 10/ | | | | | | | | | | | | 5300 | | | | | | | | | | | | 1 | 0.05 | 262 | 0.5 | | 2 |
| 11/28/1995 | 9:07 | 13.8 | 17.92 | 0.3 | 2 | 8.25 | 8.67 | 91.9 | 700 | 1270 | 11.4 | | | | | | | | | | | | | | | | | | |
| 12/16/1995 | 12:16 | 19.1 | 18 | 0.3 | 3.13 | 8.39 | 10.2 | 107.9 | 700 | 1144 | 11.2 | 758 | | | | | | | | | | | | | | | | | |

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Appendix A. Continued

| | | Air | Water | Depth | Flow | | DO | Oxygen | Field | | Battery | Fecal | Total | Total | P. | | | Lab | | | | | | | Sulfate | Ammonia | Nitrite | Nitrogen | |
|--|--|------|-------|-------|------|--|------|--------|-------|------|---------|-----------|----------|------------|------------|-----|-----|-----|-----|-----------|---------|----------|-----------|---------|-----------|---------|---------|----------|-------|
| | | Temp | Temp | M | f/s | | mg/l | Sat % | TDS | Cond | (V) | Coliforms | Hardness | Alkalinity | Alkalinity | BOD | COD | TSS | TDS | Turbidity | Calcium | Chloride | Magnesium | Nitrate | Phosphate | total | total | total | total |

| Date | Time | Temp | Temp M | f/s | pH | mg/l | Sat % | mg/l | mS/cm (V) | col/100ml | mg/l | mg/l | mg/L | mg/l | mg/l | mg/l | mg/l | N.T.U. | mg/l | mg/l | mg/l | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | | |
|------------|-------|------|--------|-------|------|------|-------|-------|-----------|-----------|------|-------|------|------|------|------|------|--------|------|------|------|------|------|------|------|------|------|-----|---|
| 9/18/1993 | 15:00 | 37 | 28.5 | 0.2 | 2.9 | 7.8 | 6.5 | 84 | 690 | 1080 | | 5500 | 284 | 140 | 0 | 4 | 19 | 43 | 675 | 29 | 84 | 107 | | | | | | | |
| 10/16/1993 | 12:00 | 28 | 26.9 | 0.2 | 3.3 | 8.07 | 5.69 | 71.8 | 680 | 1064 | 12.5 | 9000 | 266 | 129 | 5 | 2 | <5 | 60 | 608 | 51 | 88 | 98 | 12 | | | | | | |
| 11/20/1993 | 13:10 | | 18.3 | 0.3 | 2.7 | 7.4 | 7.8 | 84.4 | 701 | 1077 | 11.4 | 6000 | | 132 | | 1 | | 38 | 764 | 20 | 96 | 112 | | | | | | | |
| 12/18/1993 | 14:55 | 12.5 | 16.3 | 0.4 | 3.4 | 8.1 | 6.96 | 71 | 758 | 1180 | 10.2 | 8636 | | 130 | 8 | 1 | | 43 | 738 | 17.3 | 87 | 110 | 21 | | | | | | |
| 1/22/1994 | | 11 | 13.4 | 0.6 | 2.9 | 8.5 | 8.71 | 82.4 | 744 | 1152 | 14 | 33000 | 280 | 130 | 7 | 2 | | 36 | 763 | 11 | 78 | 117 | 19 | | | | | | |
| 2/26/1994 | 14:45 | 14 | 17.3 | 0.5 | 2.9 | 7.82 | 8.1 | 85.1 | 796 | | | 7470 | 294 | 137 | 8 | 3 | 9 | 39 | 811 | 11 | 87 | 113 | 19 | | | | | | |
| 3/19/1994 | | 35 | 20.4 | 0.3 | 2.9 | 7.9 | 7.76 | 86.7 | 710 | 1100 | | 14672 | 261 | 122 | 6 | 1 | 8 | 48 | 796 | 10 | 84 | 94 | 13 | | | | | | |
| 4/23/1994 | 15:45 | 32 | 23 | | 2.9 | | | | | | | 3000 | 283 | 129 | 7 | 3 | | 241 | 780 | | 89 | 112 | | | | | | | |
| 6/2/1994 | 12:58 | 36 | 30 | 0.9 | 2.3 | 8 | 6.8 | 87 | | | | | | | | | | | | | | | | | | | | | |
| 6/25/1994 | 1:00 | 39 | 34 | 0.2 | 1.7 | 9.6 | 8.65 | 113 | 580 | | | 3555 | 269 | 176 | 6 | 3 | 15 | 68 | 836 | 45 | 94 | 120 | 25 | | | | | | |
| 7/23/1994 | 16:35 | 39.5 | 30.5 | 0.3 | 1.5 | 8 | 7 | 90 | 620 | | | 1511 | 275 | 158 | 8 | 1 | | 69 | 599 | 71 | 75 | 99 | 26 | | | | | | |
| 8/27/1994 | 17:43 | 35 | 31.5 | 0.3 | 1.3 | 8.2 | 6.4 | 82 | 910 | 1240 | | | | 122 | | | | | | | | | 0.23 | 0.61 | | | | | |
| 9/17/1994 | 12:55 | 26 | 27.5 | 0.3 | 4 | 7.8 | 4.9 | 61 | 670 | | | 17273 | 232 | 102 | 6 | 5 | | 678 | 660 | 375 | 65 | 68 | 17 | | | | | | |
| 10/22/1994 | 16:15 | 37 | 28.25 | 0.3 | 2.5 | 7.86 | 6.46 | 83.3 | 840 | 1319 | 13.1 | 1240 | 292 | 126 | 8 | 2 | | 28 | 786 | 27 | 77 | 93 | 23 | | | | | | |
| 11/19/1994 | 13:05 | 29 | 22.3 | 0.3 | 1 | 8.1 | 8 | 91.8 | 872 | 1367 | | 1327 | 286 | 136 | 10 | | 10 | 18 | 818 | 17 | 85 | | 19 | | | | | | |
| 12/17/1994 | 12:10 | 14 | 18.5 | 0.4 | 2.4 | 7.9 | 7 | 78 | 799 | 1210 | | 7200 | | 140 | | | 11 | 15 | 818 | 19 | 89 | | | | | | | | |
| 1/21/1995 | 12:50 | 19.6 | 15.1 | 0.3 | 3 | 7.8 | 9 | 86.5 | 840 | 1310 | 10.9 | 88000 | | 122 | | | | 22 | 802 | 14 | | 125 | | | | | | | |
| 2/25/1995 | 13:35 | 26.5 | 19.88 | 0.3 | 2.2 | 7.7 | 7.16 | 78.6 | 865 | 1356 | 10.4 | *8874 | | 134 | | | | 21 | 826 | 16 | | 155 | | 5 | 0.17 | 270 | 0.26 | 0.3 | 1 |
| 3/25/1995 | 12:00 | 30 | 24.4 | 0.3 | 3 | 7.8 | 6.7 | 80 | 853 | 1332 | 10.3 | 48000 | | 134 | | | | 127 | 824 | 110 | | | | | | | | | |
| 4/29/1995 | 14:20 | 35 | 24.26 | 0.2 | | 8.06 | 7.46 | 89.7 | 815 | 1270 | 12.5 | 6306 | | 126 | | | | 55 | 846 | 43 | | 100 | | 2 | 0.17 | 262 | 0.15 | 0.1 | 1 |
| 5/20/1995 | 11:25 | 30 | 27.36 | 0.3 | 2 | 8.56 | 8.95 | 114.1 | 850 | 1320 | 11.9 | 286 | | 13 | | | | 16 | 860 | 13 | | 125 | 206 | 1 | 0.1 | 292 | 0.12 | 0.1 | 1 |
| 6/17/1995 | 12:05 | 32 | 27.73 | 0.3 | 3.2 | 8.54 | 6.95 | 88.9 | 820 | 1288 | 11.9 | 265 | | | | | | 40 | | | | | | | | | | | |
| 7/15/1995 | 12:10 | 31.5 | 30.18 | 0.3 | 1.6 | 7.84 | 5.35 | 7.12 | 780 | 1220 | 11.6 | 59000 | | | | | | | | | | | | | | | | | |
| 8/19/1995 | 14:49 | 40.5 | 30.77 | 0.3 | 2 | 7.9 | 6.64 | 90 | 830 | 1295 | 14.9 | 247 | | | | | | | | | | | | | | | | | |
| 9/23/1995 | 15:00 | 29 | 21.8 | 0.3 | 2.85 | 7.88 | 7.3 | 83.2 | 785 | 1250 | 10.6 | 1909 | | | | | | | | | | | | | | | | | |
| 10/ | | | | | | | | | | | | 4200 | | | | | | | | | | | 1 | 0.2 | 263 | 0.54 | | 2 | |
| 11/28/1995 | 10:13 | | 18.33 | 0.3 | 3.33 | 7.96 | 7.23 | 77.1 | 700 | 1270 | 11.3 | | | | | | | | | | | | | | | | | | |
| 12/16/1995 | 13:52 | 21.5 | 18.8 | 0.263 | 2.94 | 8.05 | 8.46 | 91.5 | 700 | 1182 | 11.4 | 4000 | | | | | | | | | | | | | | | | | |

* Average of two samples