

**Table 2-B: San Timoteo 2
Warm Season Monitoring Results**

DATE	Flow rate (CFS)	Air Temp °C	Water Temp °C	pH	Dissolved Oxygen	Electrical conductivity	<i>E. coli</i>	Total coliform	<i>E. coli</i> geo mean
Objective	-	-	varies	6.5-8.5	> 5 mg/L	462 (uS/cm)	235 mpn	10000 mpn	126 mpn
7/14/08	5.58	37.7	25.7	8.2		884	547.5	1011.2	
7/23/08	7.18	29.4	27.4	8.1	7.4	953	517.2	26030	
7/31/08	3.69	31.4	26.7	8.2	8.1	901	248.1	>2419.6	
8/5/08	3.11	33.0	27.8	8.3	7.9	880	142.1	>2419.6	316.1
8/13/08	6.21	35.2	26.7	8.3	7.9	836	172.5	>2419.6	236.8
8/21/08	7.12	28.4	26.3	8.2	7.6	828	235.9	>24196	236.6
8/27/08	7.16	31.4	28.2	8.2	7.4	819	9804	>24196	426.2
9/6/08	7.88	34.2	28.5	8.2	7.2	825	727	>2419.6	733.9
9/12/08	6.41	24.6	26.2	8.3	7.6	818	648.8	>2419.6	1022.0
9/16/08	6.97	36.7	29.3	8.4	7.7	810	770.1	>2419.6	965.8
9/23/08	5.67	33.4	27.3	8.3	8.2	799	1046.2	>2419.6	1300.9
10/4/08	6.7	25.0	24.0	8.3	8.2	830	1553.1	198630	899.9
10/10/08	6.66	18.0	23.5	8.3	8.2	822	770.1	54750	910.3
10/17/08	7.43	19.7	20.4	8.2	8.4	810	770.1	41060	990.8
10/26/08	8.87	33.0	25.0	8.3	8.6	829	2230	77010	1197.2
10/30/08	1.56	28.7	19.7	8.4	9.4	904	2750	72700	1413.8
5/9/09	8.9	37.0	27.8	8.4	8.0	818	167	2419.6	
5/15/09	8.1		27.3	8.4	8.7	797	103.9	9804	
5/22/09	9.7	23.2	22.1	8.4	9.1	815	344.8	12997	
5/30/09	10.9	23.8	23.1	8.4	8.7	824	344.8	15531	213.1
6/6/09	13.4	18.4	22.0	8.2	8.1	822	156.5	14136	200.4
6/12/09	14.7	21.3	21.9	8.3	8.8	816	172.5	10462	201.7
6/19/09	11.1	34.1	27.8	8.4	7.4	809	235.9	6488	237.6
6/26/09	12.6	30.5	24.6	8.3	8.3	796			
7/2/09	9.9	32.8	27.5	8.3	8.1	794	435.2	30760	229.4
7/10/09	10.1	34.6	26.4	8.2	7.8	808	1046.2	32550	368.9
7/15/09	7.6	32.8	26.4	8.2	7.5	796	261.3	21420	409.3
7/23/09	9.5	35.0	27.8	8.2	8.6	814	365.4	68670	456.6
7/30/09	5.3	31.9	27.3	8.3	7.6	848	290.9	72700	417.2
8/7/09	8.9	25.8	26.0	8.2	7.2	790	83.3	38730	299.8
8/13/09	7.6	35.1	26.2	8.2	7.7	787	290.9	51720	232.1
8/20/09	9.4	31.5	26.5	8.2	8.6	779	517.2	46110	266.0
8/28/09	8.7	38.8	28.6	8.2	7.7	736			
9/3/09	9.9	34.5	27.7	8.3	8.6	761	39.9	68670	149.5
9/4/09	8.1	27.3	35.6	8.3	8.5	798	57.3	57940	123.4
9/11/09	9.8	36.4	27.9	8.3	8.5	777	84.2	48840	123.7
9/16/09	11.4	30.1	26.2	8.3	8.4	772	579.4	26130	142.0
9/24/09	9.4	35.2	24.3	8.2	7.2	761	410.6	30760	135.6
10/1/09	7.6		25.5	8.3	8.5	847	547.5	32550	228.9
10/8/09	16.3	23.1	22.4	8.3	7.6	794	137.6	17329	272.7
10/17/09	12.5	34.9	24.4	8.4	7.6	794	63.1	17329	210.2
10/23/09	11.9	32.5	23.8	8.4	7.8	785	36.8	12033	148.3
10/28/09	4.7	15.3	17.2	8.4	8.8	809	72.7	12997	104.9

**Table 2-C: San Timoteo 2-
Cool Season Monitoring Results**

DATE	Flow Rate (cfs)	Air Temp °C	Water Temp °C	PH	Dissolved Oxygen	Electrical conductivity	E. coli	Total coliform	E.coli geo mean ¹
Objective	-	-	< 25.6	6.5-8.5	> 5 mg/L	462 (uS/cm)	235 mpn	10000 mpn	126 mpn
12/1/08	14.33	23.0	17.0	8.3	9.3	815	1553.1	86640	
12/12/08	11.1	22.0	18.6	8.2	8.6	831	648.8	17329	
12/20/08	16.8	11.0	10.0	8.3	10.6	816	218.7	24196	
1/2/09	12.40	18.4	17.5	8.3	8.9	841	77.6	17329	
1/10/09	16.5	23.0	17.4	8.2		841	63.8	21430	<i>162.8</i>
1/12/09	12.2	27.9	16.9	8.2	8.8	932	325.5	19863	<i>137.0</i>
1/20/09	16.4	15.8	14.7	8.3	9.2	849	22.8	17329	<i>77.9</i>
1/29/09	13.3	16.9	13.5	8.4	10.3	847	30.9	5794	64.7
2/3/09	14.7	23.9	15.7	8.3	9.2	847	64.5	8164	62.4
2/13/09	18.7	10.6	13.0	8.3	9.7	830	238.2	7270	<i>57.4</i>
2/19/09	12.7	17.1	15.3	8.2	9.5	828	38.3	6131	<i>65.3</i>
2/27/09	13.6	22.0	20.3	8.3	8.4	845	48.1	10462	61.4
3/18/09	17.9	27.3	21.0	8.3	7.9	878	218.7	24196	
11/5/09	14.1	24.1	20.7	8.4	8.0	799	64.4	14136	68.4
11/14/09	17	19.4	19.5	8.3	8.2	765	67.7	7701	59.3
11/19/09	13.6	26.5	19.6	8.3	8.3	784	30.1	6488	51.2
11/24/09	12.9	24.2	18.5	8.3	8.4	801	34.5	5794	50.5

Numbers shown in red exceed the objective.

¹ Geomean is calculated by multiplying the data set (n₁, n₂, n₃...) and taking the nth square root of the product. Geomeans shown in **bold italics** are calculated with n=4 dataset and included for illustrative purposes. Other geomeans are calculated with n=5 dataset.

**Table 2-D: San Timoteo 2
Warm Season Field Observations**

Date	d.o.w.	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
7/14/08	M	CLEAR	CLEAR	NONE	BROWN	COURSE SAND	NONE
7/23/08	W	CLEAR	CLEAR	NONE	GRAY	COURSE SAND, COBBLE	NONE
7/31/08	R	CLEAR	CLEAR	NONE	GRAY	COURSE SAND, GRAVEL	NONE
8/5/08	T	CLEAR	CLEAR	NONE	GRAY	COURSE SAND	NONE
8/13/08	W	CLEAR	CLEAR	NONE	GRAY	COURSE SAND, COBBLE	NONE
8/21/08	R	CLEAR	CLEAR	NONE	GRAY	COURSE SAND, COBBLE	NONE
8/27/08	W	CLEAR	CLEAR	NONE	GRAY	COURSE SAND	NONE
9/6/08	SAT	CLEAR	CLEAR	NONE	GRAY	COURSE SAND	NONE
9/12/08	F	CLEAR	CLEAR	NONE	GRAY	COURSE SAND, COBBLE	NONE
9/16/08	T	CLEAR	CLEAR	NONE	GRAY	COURSE SAND	NONE
9/23/08	T	CLEAR	CLEAR	NONE	GRAY	COURSE SAND	NONE
10/4/08	SAT	GREEN	CLEAR	MIXED	GRAY	COURSE SAND	MIXED
10/10/08	F	CLEAR	CLEAR	SEWAGE	GRAY	COURSE SAND/COBBLE	SEWAGE
10/17/08	F	CLEAR	CLEAR	SEWAGE	GRAY	COURSE SAND	NONE
10/26/08	SUN	BROWN	CLEAR	MIXED	GRAY	COURSE SAND	NONE
10/30/08	R	BROWN	SEMI-CLEAR	NONE	GRAY	COURSE SAND	NONE
5/9/09	SAT	CLEAR	CLEAR	MIXED	BROWN	COURSE SAND/SILTY CLAY	SEWAGE
5/15/09	F	YELLOW	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	SEWAGE
5/22/09	F	YELLOW	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
5/30/09	SAT	BROWN	SEMI-CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
6/6/09	SAT	YELLOW	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	MIXED
6/12/09	F	YELLOW	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	NONE
6/19/09	F	CLEAR	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	NONE
6/26/09	F	YELLOW	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	NONE
7/2/09	R	CLEAR	CLEAR	SEWAGE	gray	COURSE SAND/SILTY CLAY	NONE
7/10/09	F	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
7/15/09	W	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
7/23/09	R	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
7/30/09	W	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
8/7/09	F	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	NONE
8/13/09	R	CLEAR	CLEAR	SEWAGE	GRAY	COURSE SAND/SILTY CLAY	NONE
8/20/09	R	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/SILTY CLAY	MIXED
8/28/09	F	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
9/3/09	R	CLEAR	CLEAR	SEWAGE	GRAY	COURSE SAND/FINE SAND	SEWAGE
9/4/09	F	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	MIXED
9/11/09	F	CLEAR	CLEAR	NONE	GRAY	COURSE SAND/FINE SAND	NONE
9/16/09	W	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
9/24/09	R	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
10/1/09	R	CLEAR	CLEAR	NONE	BROWN	COURSE SAND/FINE SAND	NONE
10/17/09	S	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
10/23/09	F	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
10/28/09	W	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE

**Table 2-E: San Timoteo 2
Cool Season Physical Observations**

Date	d.o.w.²	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
12/1/08	M	BROWN	TURBID	SEWAGE	BROWN	COURSE SAND	SEWAGE
12/12/08	F	BROWN	SEMI-CLEAR	-	BROWN	COURSE SAND	-
12/20/08	SAT	BROWN	TURBID	SEWAGE	BROWN	COURSE SAND	SEWAGE
1/2/09	M	BROWN	TURBID	MIXED	BROWN	FINE SAND/COBBLE	MIXED
1/10/09	SAT	BROWN	SEMI-CLEAR	MIXED	BROWN	COURSE SAND	NONE
1/12/09	M	BROWN	TURBID	SEWAGE	BROWN	COURSE SAND	MIXED
1/20/09	T	YELLOW	SEMI-CLEAR	SEWAGE	BROWN	COURSE SAND	SEWAGE
1/29/09	R	YELLOW	SEMI-CLEAR	SEWAGE	BROWN	COURSE SAND	MIXED
2/3/09	T	BROWN	SEMI-CLEAR	SEWAGE	BROWN	COURSE SAND	SEWAGE
2/13/09	F	BROWN	TURBID	SEWAGE	MIXED	COURSE SAND	MIXED
2/19/09	R	BROWN	TURBID	SEWAGE	BROWN	COURSE SAND	SEWAGE
2/27/09	F	BROWN	SEMI-CLEAR	MIXED	BROWN	COURSE SAND	MIXED
3/18/09	W	BROWN	CLEAR	MIXED	BROWN	COURSE SAND	OTHER
11/5/09	R	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	NONE
11/14/09	Sat	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	MIXED
11/19/09	R	CLEAR	CLEAR	MIXED	GRAY	COURSE SAND/FINE SAND	
11/24/09	T	CLEAR	CLEAR	NONE	GRAY	COURSE SAND/FINE SAND	NONE

² Indicates “day of the week”

**Table 2-F: San Timoteo 2
Contract Lab Results**

	12/20 /08	1/29 /09	2/3 /09	5/15 /09	6/19 /09	7/30 /09	9/11 /09	10/17/ 09	11/19/ 09	Objective ³	Unit
<i>Cations</i>											
Total Hardness	250	200	200	170	160	170	160	170	170	190	mg/L
Calcium	63	55	53	47	45	47	43	44	46	-	mg/L
Magnesium	23	16	16	13	13	14	12	14	14	-	mg/L
Sodium	99	92	95	93	95	99	96	100	95	30	mg/L
Potassium	12	10	10	11	11	10	13	12	11	-	mg/L
<i>Anions</i>											
Chloride	84	83	92	82	88	100	94	89	90	20	mg/L
Sulfate	43	49	47	46	51	46	45	37	40	60	mg/L
Nitrate as N	4.4	3.1	1.9	1.9	3.2	2.6	2.3	2.8	4.2	-	mg/L
<i>Aggregate Properties</i>											
Sp. Conductance⁴	770	810	800	810	800	860	720	780	770	462	uS/cm
<i>Solids</i>											
TDS	490	460	570	480	440	470	440	440	420	300	mg/L
<i>Aggregate Organic Compounds</i>											
COD	64	23	86	26	21	21	19	12	ND	25	mg/L
<i>Nutrients</i>											
Nitrite as N	0.18	0.26	0.28	0.25	0.070	0.07	0.050	0.10	0.080	-	mg/L
Ammonia-nitrogen	0.51	0.39	0.43	0.1	0.094	0.072	0.13	ND	ND	0.098	mg/L
Kjeldahl-nitrogen	1.1	1.1	1	1.1	2.3	0.55	0.83	0.63	0.46	-	mg/L
Ortho-phosphate phosphorus	1.4	2.3	1.6	1.4	2.3	1.8	2.2		2.0	-	mg/L
Total phosphorus	2.0	2.3	2.3	3	3.8	2.2	2.3	2.2	2.3	-	mg/L
Total inorganic nitrogen	5.1	3.8	2.6	2.3	3.4	2.7	2.5	2.9	4.3	5	mg/L
Total organic nitrogen	0.6	0.7	0.6	1.0	2.2	0.5	0.7	0.6	0.5	5	mg/L
Total nitrogen	5.7	4.5	3.2	3.3	5.6	3.2	3.2	3.5	4.7	-	mg/L

³ Refer to QAPP Table 3 for source and description of objectives.

⁴ Specific conductance is the same as EC or electrical conductivity.

**Table 2-F: San Timoteo 2
Contract Lab Results Continued**

	12/20 /08	1/29 /09	2/3 /09	5/15 /09	6/19 /09	7/30 /09	9/11 /09	10/17 /09	11/19 /09	Objective	Unit
<i>Metals and Metalloids</i>											
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	4300	µg/L
Arsenic	ND	6.2	ND	ND	ND	ND	ND	1.7	1.8	150/340	µg/L
Beryllium	ND	ND	ND	ND	ND	ND	ND	0.70	ND	4	µg/L
Cadmium	ND	ND	ND	ND	ND	ND	ND	0.58	ND	calculated ⁵	µg/L
Copper	ND	ND	7.6	5.5	4.2	4.6	2.9	3.7	3.1	calculated ⁶	µg/L
Lead	6.9	ND	1.2	0.67	0.42	0.17	0.12	0.63	0.15	calculated ⁷	µg/L
Inorganic Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	µg/L
Nickel	ND	ND	6	4.3	4.6	4.9	2.1	4.6	4.8	4600	µg/L
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/20	µg/L
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	µg/L
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.3	µg/L
Zinc	74	37	36	35	28	18	19	24	24	5000	µg/L
<i>Organochlorine Pesticides and PCBs by EPA 608</i>											
Pesticides & PCBs	All ND	All ND	All ND	All ND	All ND	All ND	All ND	All ND	All ND	various	µg/L

Results shown in red exceed the objective.

ND means non-detect.

Results also available in SWAMP-comparable format.

⁵ Cadmium Site Specific Objective = $0.85[e^{(0.7852 * \ln(\text{TH}) - 3.490)}]$ where TH is total hardness

⁶ Copper Site Specific Objective = $0.85[e^{(0.8545 * \ln(\text{TH}) - 1.465)}]$

⁷ Lead site specific objective = $0.25[e^{(1.237 * \ln(\text{TH}) - 3.958)}]$

**Table 3-B: San Timoteo 3
Warm Season Monitoring Results**

DATE	Flow Rate (cfs)	Air Temp °C	Water Temp °C	PH	Dissolved Oxygen	Electrical conductivity	<i>E. coli</i>	Total coliform	<i>E. coli</i> geo mean
Objective	-	-	varies	6.5-8.5	> 5 mg/L	462 uS/cm	235 mpn	10000 mpn	126 mpn
7/14/08	0.16	37.0	29.5	8.5		1055	1986.3	30760	
7/23/08	0.18	37.1	31.3	8.5	7.3	1143	387.3	98040	
7/31/08	0.038	37.3	32.3	8.7	6.9	1058	344.8	>2419.6	
8/5/08	0	33.0							
8/13/08	0	33.6							
8/21/08	0	29.8							
8/27/08	0	33.0							
9/6/08	0	35.3							
9/12/08	0.32	25.8	26.0	8.4	7.3	1358	11199	>24196	
9/16/08	0.79	33.2	30.5	8.5	7.7	1187	24196	>24196	
9/23/08	0.29	32.0	27.6	8.3	7.4	1294	>24196	>24196	
10/4/08	0.58	19.9	22.2	8.5	8.1	1097	579.4	41060	
10/10/08	0.56	19.5	19.0	8.6	9.2	1097	1119.9	37840	3641.41
10/17/08	1.66	16.9	13.9	8.4	9.9	1077	770.1	24196	
10/26/08	1.22	33.5	24.8	8.4	7.8	1069	648.8	43520	754.58
10/30/08	4.41	32.0	18.2	8.4	9.0	1049	3640	98040	1033.67
5/9/09	3.0	32.0	29.5	8.5	7.7	939	325.5	9804	
5/15/09	4.1	33.5	30.4	8.5	7.8	949	191.8	10462	
5/22/09	3.8	23.3	23.8	8.5	7.6	930	1732.9	17329	
5/30/09	5.0	21.0	22.5	8.5	7.9	931	193.5	>24196	380.4
6/6/09	6.8	19.3	18.8	8.5	9.1	926	613.1	24196	418.5
6/12/09	13.6	20.2	20.2	8.5	8.4	901	547.5	17329	464.3
6/19/09	3.6	33.3	30.6	8.5	6.3	932	285.1	9208	502.7
6/26/09	9.0	30.0	26.8	8.4	7.1	910			
7/2/09	6.4	33.7	30.5	8.4	6.9	915	648.8	68670	499.2
7/10/09	3.4	29.3	27.7	8.4	7.3	954	1413.6	48840	615.1
7/15/09	1.5	32.0	27.4	8.4	7.3	944	1299.7	61310	763.5
7/23/09	1.1	33.4	28.2	8.3	7.5	961	1553.1	198630	1166.5
7/30/09	0.9	31.3	28.6	8.3	6.7	970	686.7	>24196	1049.2
8/7/09	0.9	28.7	26.2	8.3	7.3	985	1119.9	>241960	1170.2
8/13/09		32.9	25.0	8.3	7.3	992	1553.1	241960	1192.4
8/20/09	1.2	32.4	25.4	8.2	7.9	985	980.4	241960	1127.1
8/28/09	1.1	39.4	25.6	8.2	6.7	962			
9/3/09	1.8	36.1	23.8	8.2	7.2	986	1553.1	241960	1275.7
9/4/09	2.2	35.4	24.3	8.1	7.7	981	1119.9	241960	1242.9
9/11/09	1.4	36.1	24.2	8.2	7.0	1000	1413.6	173290	1302.15
9/16/09	1.8	30.2	22.1	8.2	7.0	1000	1986.3	98040	1367.83
9/24/09	1	32.7	20.6	8.2	8.1	968	1203.3	64880	1425.0
10/1/09	0.6	30.9	20.3	8.2	7.9	988	1986.3	36540	1496.9
10/8/09	4.2	21.0	17.8	8.4	8.3	945	1986.3	77010	1678.7
10/17/09	5.1	34.6	22.6	8.4	8.0	925	2419.6	173290	1841.0
10/23/09	2.1	31.5	21.4	8.4	7.8	934	1732.9	41060	1818.8
10/28/09	2.5	14.8	13.7	8.4	10.0	917	547.5	43520	1553.8

**Table 3-C: San Timoteo 3
Cool Season Monitoring Results**

DATE	Flow Rate (cfs)	Air Temp °C	Water Temp °C	PH	Dissolved Oxygen	Electrical conductivity	<i>E. coli</i>	Total coliform	<i>E. coli</i> geo mean ⁸
Objective	-	-	< 25.6	6.5-8.5	> 5 mg/L	462 (uS/cm)	235 mpn	10000 mpn	126 mpn
12/1/08	-	25.0	13.0	8.4	10.7	939	4570	141360	
12/12/08	15	17.7	16.4	8.5	9.3	956	275.5	24196	
12/20/08	flooded	12.0	9.2	8.4	11.2	868	72700	>241960	-
1/2/09	0	17.1	17.0	8.4	8.9	944	206.4	11199	-
1/10/09	0	21.0	17.2	8.5	9.4	957	106.7	24196	814.95
1/12/09	0	27.0	16.5	8.4	9.7	1058	648.8	41060	1009.55
1/20/09	flooded (est. 20 cfs)	25.2	14.3	8.4	9.7	964	387.3	24196	272.75
1/29/09	9.1	20.0	12.8	8.1	9.4	975	1333	41060	374.60
2/3/09	14	25.0	14.9	8.4		940	248.2	30760	388.68
2/13/09									
2/19/09	15.7		14.0	8.4	10.1	769	209.8	19863	-
2/27/09	12.7	19.5	19.8	8.3	9.5	927	517.2	>24196	435.29
3/18/09	13.3	26.6	21.0	8.4	9.1	951	167	21870	
11/5/09	4.2	21.1	18.0	8.4	8.8	903	980.4	24196	1349.2
11/14/09	5.9	16.6	16.6	8.4	9.0	859	579.4	24196	1054.5
11/19/09	5.2	24.6	17.3	8.4	9.1	883	166.4	19863	617.4
11/24/09	4.7	22.0	15.8	8.4	9.2	887	290.9	23820	432

Numbers shown in red exceed the objective.

⁸ Geomean is calculated by multiplying the data set (n_1, n_2, n_3, \dots) and taking the n^{th} square root of the product. Geomeans shown in **bold italics** are calculated with a $n=4$ dataset and included for illustrative purposes. Other geomeans are calculated with a $n=5$ dataset.

**Table 3-D: San Timoteo 3
Warm Season Physical Observations**

DATE	d.o.w.	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
7/14/08	M	BROWN	TURBID	NONE	BROWN	SILT/CLAY	NONE
7/23/08	W	CLEAR	CLEAR	NONE	BROWN, GRAY	FINE SAND, SILT/CLAY	NONE
7/31/08	R	CLEAR	CLEAR	MIXED	BROWN	SILT/CLAY	NONE
8/5/08	T	DRY					
8/13/08	W	DRY					
8/21/08	R	DRY					
8/27/08	W	DRY					
9/6/08	W	DRY					
9/12/08	T	GREEN	CLEAR	NONE	MIXED	SILT/CLAY	NONE
9/16/08	SAT	YELLOW	CLEAR	NONE	GRAY	SILT/CLAY	NONE
9/23/08	SAT	BROWN	TURBID	NONE	BROWN	SILT/CLAY	NONE
10/4/08	SAT	CLEAR	CLEAR	NONE	BROWN	SILT/CLAY	NONE
10/10/08	F	CLEAR	CLEAR	NONE	BROWN	SILT/CLAY	NONE
10/17/08	F	CLEAR	SEMI-CLEAR	NONE	BROWN	SILT/CLAY	NONE
10/26/08	SUN	CLEAR	SEMI-CLEAR	NONE	BROWN	SILT/CLAY	NONE
10/30/08	R	BROWN	TURBID	NONE	BROWN	SILT/CLAY	MIXED
5/9/09	SAT	CLEAR	SEMI-CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
5/15/09	F	YELLOW BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
5/22/09	F	BROWN	TURBID	MIXED	BROWN	FINE SAND SILT/CLAY	MIXED
5/30/09	SAT	YELLOW	SEMI-CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
6/6/09	SAT	BROWN	TURBID	NONE	BROWN	SILT/CLAY	NONE
6/12/09	F	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	NONE
6/19/09	F	BROWN	SEMI-CLEAR	SEWAGE	BROWN	FINE SAND SILT/CLAY	NONE
6/26/09	F	BROWN	SEMI-CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
7/2/09	R	BROWN	SEMI-CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
7/10/09	F	YELLOW	CLEAR	NONE	BROWN	FINE SAND SILT/CLAY	NONE
7/15/09	W	CLEAR	CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
7/23/09	R	CLEAR	CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
7/30/09	W	CLEAR	CLEAR	NONE	BROWN	FINE SAND SILT/CLAY	NONE
8/7/09	F	CLEAR	CLEAR	MIXED	BROWN	FINE SAND SILT/CLAY	NONE
8/13/09	W	CLEAR	CLEAR	NONE	BROWN	FINE SAND SILT/CLAY	NONE
8/20/09	R	CLEAR	CLEAR	NONE	BROWN	FINE SAND SILT/CLAY	NONE
8/28/09	F	CLEAR	CLEAR	NONE	BROWN	FINE SAND SILT/CLAY	MIXED
9/3/09	R	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
9/4/09	F	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
9/11/09	F	CLEAR	SEMI-CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
9/16/09	W	CLEAR	CLEAR	MIXED	BROWN	FINE SAND/SILT/CLAY	MIXED
9/24/09	R	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
10/1/09	R	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
10/17/09	S	CLEAR	CLEAR	NONE	BROWN	SILT/CLAY	NONE
10/23/09	F	BROWN	SEMI-CLEAR	MIXED	BROWN	FINE SAND/SILT/CLAY	NONE
10/28/09	W	BROWN	SEMI-CLEAR	MIXED	BROWN	FINE SAND/SILT/CLAY	NONE

**Table 3-E: San Timoteo 3
Cool Season Physical Observations**

DATE	d.o.w. ⁹	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
12/1/08	M	BROWN	TURBID	MIXED	BROWN	CLAY	NONE
12/12/08	F	BROWN	TURBID	SEWAGE	BROWN	SILT/CLAY	MIXED
12/20/09	SAT	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	-
1/2/09	M	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
1/10/09	SAT	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
1/12/09	M	BROWN	TURBID	SEWAGE	BROWN	SILT/CLAY	MIXED
1/20/09	T	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
1/29/09	R	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	HYDROGEN SULFIDE
2/3/09	T	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
2/19/09	R	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
2/27/09	F	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	MIXED
3/18/09	W	BROWN	TURBID	MIXED	BROWN	SILT/CLAY	NONE
11/5/09	R	BROWN	SEMI-CLEAR	MIXED	BROWN	SILT/CLAY	NONE
11/14/09	Sat	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE
11/19/09	R	YELLOW	SEMI-CLEAR	MIXED	BROWN	FINE SAND/SILT/CLAY	NONE
11/24/09	T	CLEAR	CLEAR	NONE	BROWN	FINE SAND/SILT/CLAY	NONE

⁹ Indicates “day of the week”

**Table 3-F: San Timoteo 3
Contract Lab Results**

	12/20 /08	1/29 /09	2/3 /09	5/15 /09	6/19 /09	7/30 /09	9/11 /09	10/17 /09	11/19 /09	Objective ¹⁰	Unit
<i>Cations</i>											
Total Hardness	350	790	350	220	230	230	260	230	220	190	mg/L
Calcium	88	210	85	61	61	63	71	63	59	-	mg/L
Magnesium	32	63	33	17	19	18	21	18	17	-	mg/L
Sodium	110	100	110	100	110	110	120	110	110	30	mg/L
Potassium	14	21	14	7.8	9.5	5.2	6.2	7.8	8.1	-	mg/L
<i>Anions</i>											
Chloride	92	96	100	93	98	120	120	99	100	20	mg/L
Sulfate	57	65	64	58	62	71	72	55	52	60	mg/L
Nitrate as N	4.3	3.6	3.2	2.3	2.6	1.5	1.6	1.8	2.3	-	mg/L
<i>Aggregate Properties</i>											
Sp. Conductance¹¹	830	930	870	950	930	990	940	910	870	462	uS/cm
<i>Solids</i>											
TDS	500	560	560	550	500	560	590	560	470	300	mg/L
<i>Aggregate Organic Compounds</i>											
COD	82	460	84	28	26	12	25	23	11	25	mg/L
<i>Nutrients</i>											
Nitrite as N	0.14	0.15	0.14	0.080	0.070	0.060	0.060	0.060	0.060	-	mg/L
Ammonia-nitrogen	0.41	0.50	0.19	ND	0.12	ND	ND	0.13	ND	0.098	mg/L
Kjeldahl-nitrogen	2.4	16	2.1	0.72	1.2	0.43	0.69	0.44	0.42	-	mg/L
Ortho-phosphate phosphorus	1.0	0.28	1.1	1.2	1.3	0.68	0.61		1.2	-	mg/L
Total Phosphorus	2.8	17	3.4	1.7	1.6	0.78	0.95	1.3	1.5	-	mg/L
Total inorganic nitrogen	4.9	4.3	3.5	2.4	2.8	1.6	1.7	2.0	2.4	5	mg/L
Total organic nitrogen	2.0	15.5	1.9	0.7	1.1	0.4	0.7	0.3	0.4	5	mg/L
Total nitrogen	6.8	19.8	5.4	3.1	3.9	2.0	2.4	2.3	2.8	-	mg/L

¹⁰ Refer to QAPP Table 3 for source and description of objectives.

¹¹ Specific conductance is the same as EC or electrical conductivity.

**Table 3-F: San Timoteo 3
Contract Lab Results Continued**

	12/20 /08	1/29 /09	2/3 /09	5/15 /09	6/19 /09	7/30 /09	9/11 /09	10/17/ 09	11/19 /09	Objective ¹²	Unit
<i>Metals and Metalloids</i>											
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	4300	µg/L
Arsenic	ND	39	8.4	ND	2.2	ND	ND	1.9	ND	150/340	µg/L
Beryllium	ND	ND	0.91	ND	0.20	ND	ND	0.66	ND	4	µg/L
Cadmium	ND	ND	ND	0.080	ND	ND	ND	0.59	ND	calculated ¹³	µg/L
Copper	55	140	53	9.5	15	6.1	8.3	7.1	6.9	calculated ¹⁴	µg/L
Lead	16	52	16	1.7	3.4	0.17	1.0	1.0	1.1	calculated ¹⁵	µg/L
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	µg/L
Nickel	38	ND	36	8.3	14	7.4	7.9	8.7	5.4	4600	µg/L
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/20	µg/L
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	µg/L
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.3	µg/L
Zinc	140	420	130	20	36	6.2	10	14	14	5000	µg/L
<i>Organochlorine Pesticides and PCBs by EPA 608</i>											
Pesticides & PCBs	All ND	All ND	All ND	All ND	All ND	All ND	All ND	All ND	All ND	various	µg/L

Results shown in red exceed the objective.

ND means non-detect.

Results also available in SWAMP-comparable format.

¹² Refer to QAPP Table 3 for source and description of objectives.

¹³ Cadmium Site Specific Objective = $0.85[e^{(0.7852 * \ln(\text{TH})^{-3.490})}]$ where TH is total hardness

¹⁴ Copper Site Specific Objective = $0.85[e^{(0.8545 * \ln(\text{TH})^{-1.465})}]$

¹⁵ Lead site specific objective = $0.25[e^{(1.237 * \ln(\text{TH})^{-3.958})}]$

**Table 4-B: San Timoteo 4
Warm Season Monitoring Results**

DATE	Flow rate (cfs)	Air Temp °C	Water temp °C	pH	Dissolved Oxygen	Electrical conductivity	<i>E.coli</i>	Total coliform	<i>E.coli</i> geo mean
Objective	-	-	varies	6.5-8.5	> 5 mg/L	462 uS/cm	235 mpn	10000 mpn	126 mpn
7/14/08	0.84	38.0	30.5	10.3		486	727	19863	
7/23/08	3.55	-	34.8	9.2	9.5	784	2419.6	129970	
7/31/08	0.49	35.3	33.5	10.6	10.5	557	34.5	>2419.6	
8/5/08	1.13	35.2	33.3	10.3	10.4	498	>2419.6	>2419.6	
8/13/08	0.99	35.2	29.1	10.2	11.3	500	770.1	>2419.6	464.96
8/21/08	1.25	32.8	32.2	10.5		461	71.4	12997	18.83
8/27/08	0.8	35.5	32.9	10.6	11.0	516	28.1	8164	85.45
9/6/08	1.33	34.9	28.5	10.5	8.7	466	579.4	12033	172.97
9/12/08	0.18	24.4	24.5	10.8	8.1	712	123.4	>2419.6	161.68
9/16/08	0.66	36.0	31.3	10.7	10.0	584	54.6	6488	95.23
9/23/08	0.1	32.5	26.6	10.5	9.9	552	461.1	>2419.6	138.29
10/4/08	1.65	19.0	20.5	9.7	9.4	551	1119.9	54750	289.00
10/10/08	2.24	22.1	21.7	9.7	14.2	547	1553.1	81640	351.99
10/17/08	2.48	28.0	17.6	9.3	14.5	640	1046.2	92080	539.75
10/26/08	3.74	36.5	26.2	10.8	15.5	656	770.1	22550	916.36
10/30/08	3.41	31.4	25.4	10.5	16.5	625	980.4	30760	1065.59
5/9/09	4.4	31.5	30.5	9.8	7.3	827	579.4	2419.6	
5/15/09	6.3	35.1	31.7	10.0	9.7	765	410.6	1986.3	
5/22/09	5.1	26.0	27.2	9.0	8.5	864	1935	15531	
5/30/09	5.9	24.2	24.8	9.8	14.3	835	517.2	1732.9	698.53
6/6/09	5.9	20.6	20.1	9.6	11.9	917	435.2	15531	635.5
6/12/09	10.2	19.9	19.7	9.2	9.7	842	1046.2	24196	715.2
6/19/09	5.4	34.6	33.6	9.5	10.1	844	325.5	15531	682.7
6/26/09	6.2	32.3	30.7	9.4	8.4	845			
7/2/09	5.2	35.4	34.3	10.4	13.5	795	28.8	920.8	255.6
7/10/09	2.5	33.1	30.1	9.6	11.5	802	648.8	24810	282.4
7/15/09	1.7	34.2	32.4	9.6	10.7	663	517.2	19863	236.8
7/23/09	3.7	36.7	31.9	9.7	11.8	629	1119.9	22820	322.5
7/30/09	1.5		34.1	10.7	9.9	874	<1	149.7	322.5
8/7/09	0.9	29.7	31.5	10.7	10.5	799	6.3	1732.9	220.6
8/13/09	2.3	34.6	31.8	10.1	12.3	805	75.4	9804	128.8
8/20/09	1.6	34.2	32.2	10.1	11.8	642	166.4	9208	97.0
8/28/09	0.7	41.7	34.2	10.5	9.3	774			
9/3/09	0.9	40.1	33.1	10.6	10.0	748	<10	3255	29.8
9/4/09	1.4	38.6	33.2	9.3	10.2	643	1732.9	17329	67.2
9/11/09	0.8	36.2	32.0	10.8	9.8	851	1	63.8	46.5
9/16/09	0.8	31.3	30.8	10.4	9.7	615	261.3	2098	59.6
9/24/09	1	39.4	30.4	10.3	12.2	669	344.1	1413.6	111.7
10/1/09	3.5	33.7	30.4	10.7	10.6	698	6.2	1956	62.7
10/8/09	3.4	24.5	25.4	9.9	13.3	701	1046.2	34480	56.6
10/17/09	3.6	37.6	29.9	10.2	14.1	712	201.4	24196	145.6
10/23/09	3.4	34.2	27.2	10.5	12.9	791	613.1	7270	194.1
10/28/09	3.3	19.1	17.0	9.6	13.1	839	228.2	17329	178.8

**Table 4-C: San Timoteo 4
Cool Season Monitoring Results**

DATE	Flow rate (cfs)	Air Temp °C	Water temp °C	pH	Dissolved Oxygen	Electrical conductivity	<i>E. coli</i>	Total coliform	<i>E. coli</i> geo mean ¹⁶
Objective	-	-	< 25.6	6.5-8.5	> 5 mg/L	462 uS/cm	235 mpn	10000 mpn	126 mpn
12/1/08	8.19	25.0	17.5	9.0	12.7	841	2590	81640	
12/12/08	7.8	17.7	13.6	9.2	11.2	913	547.5	5475	
12/20/08	11.9	14.0	11.3	8.6		807	24196	>241960	
1/2/09	12.30	14.4	13.8	9.2	10.7	853	290.9	51720	
1/10/09	7.9	20.0	13.4	9.4	11.9	824	133.4	32550	846.75
1/12/09	15.7	27.4	17.6	9.2	13.1	976	461.1	51720	749.83
1/20/09	13	26.0	17.3	9.6	17.2	822	209.8	19863	247.53
1/29/09	9.6	-	14.9	9.2	14.5	853	579.4	23820	293.42
2/3/09	10.7	26.6	19.3	9.4	14.4	819	218.7	26130	277.15
2/13/09									
2/19/09	9.5	20.5	17.4	9.1	12.1	813	461.1	24196	
2/27/09	9.3	20.7	22.0	9.1	12.4	897	1119.9	>24196	505.77
3/18/09	9.3	26.0	21.4	8.7	8.1	935	344.8	39680	
11/5/09	3.9	25.0	22.9	10.2	15.1	1372	689.3	19863	458.8
11/14/09	5.7	19.2	20.7	9.6	13.2	727	547.5	>24196	403.0
11/19/09	6.3	26.2	20.0	9.6	12.6	771	1299.7	27550	585.2
11/24/09	5.8	24.2	18.6	10.0	15.0	774	157.6	17329	446

Numbers shown in red exceed the objective.

¹⁶ Geomean is calculated by multiplying the data set (n₁, n₂, n₃...) and taking the nth square root of the product. Geomeans shown in **bold italics** are calculated with a n=4 dataset and included for illustrative purposes. Other geomeans are calculated with a n=5 dataset.

**Table 4-D: San Timoteo 4
Warm Season Physical Observations**

DATE	d.o.w	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
7/14/08	M	CLEAR	SEMI-CLEAR	NONE	OTHER	OTHER	SEWAGE
7/23/08	W	CLEAR	SEMI-CLEAR	NONE	OTHER	OTHER	SEWAGE
7/31/08	R	GREEN	CLEAR	MIXED	OTHER	OTHER	HYDROGEN SULFIDE, SEWAGE
8/5/08	T	GREEN	CLEAR	NONE	OTHER	OTHER	NONE
8/13/08	W	GREEN	CLEAR	MIXED	OTHER	OTHER	NONE
8/21/08	R	GREEN	CLEAR	NONE	OTHER	OTHER	NONE
8/27/08	W	GREEN	CLEAR	HYDROGEN SULFIDE	OTHER	OTHER	MIXED
9/6/08	W	GREEN	CLEAR	HYDROGEN SULFIDE	OTHER	OTHER	HYDROGEN SULFIDE
9/12/08	T	GREEN	CLEAR	NONE	OTHER	OTHER	NONE
9/16/08	SAT	YELLOW	CLEAR	MIXED	OTHER	OTHER	MIXED
9/23/08	SAT	BROWN	CLEAR	NONE	OTHER	OTHER	NONE
10/4/08	SAT	CLEAR	CLEAR	NONE	OTHER	OTHER	NONE
10/10/08	F	GREEN	CLEAR	MIXED	OTHER	OTHER	MIXED
10/17/08	F	GREEN	CLEAR	NONE	OTHER	OTHER	NONE
10/26/08	SUN	GREEN	CLEAR	MIXED	OTHER	OTHER	NONE
10/30/08	R	GREEN YELLOW	CLEAR	NONE	OTHER	OTHER	NONE
5/9/09	SAT	YELLOW	SEMI-CLEAR	MIXED	BROWN	OTHER	HYDROGEN SULFIDE SEWAGE
5/15/09	F	YELLOW	SEMI-CLEAR	MIXED	OTHER	OTHER	HYDROGEN SULFIDE MIXED
5/22/09	F	BROWN	SEMI-CLEAR	MIXED	OTHER	OTHER	HYDROGEN SULFIDE
5/30/09	SAT	GREEN	CLEAR	MIXED	OTHER	OTHER	NONE
6/6/09	SAT	YELLOW	CLEAR	SEWAGE	OTHER	OTHER	NONE
6/12/09	F	YELLOW	SEMI-CLEAR		OTHER	OTHER	NONE
6/19/09	F	CLEAR	CLEAR	MIXED	OTHER	OTHER	NONE
6/26/09	F	YELLOW	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
7/2/09	R	YELLOW	SEMI-CLEAR		OTHER	OTHER	NONE
7/10/09	F	BROWN	SEMI-CLEAR	MIXED	BROWN	SILT/CLAY	HYDROGEN SULFIDE
7/15/09	W	YELLOW	CLEAR	NITRATES	BROWN	SILT/CLAY	HYDROGEN SULFIDE
7/23/09	R	CLEAR	CLEAR	SEWAGE	BROWN	SILT/CLAY	HYDROGEN SULFIDE SEWAGE
7/30/09	W	GREEN	CLEAR	MIXED	OTHER	OTHER	NONE
8/7/09	F	YELLOW BROWN	SEMI-CLEAR	MIXED	OTHER	OTHER	MIXED
8/13/09	W	YELLOW BROWN	SEMI-CLEAR	MIXED	OTHER	OTHER	MIXED
8/20/09	R	YELLOW	SEMI-CLEAR	NONE	OTHER	OTHER	NONE
8/28/09	F	YELLOW	CLEAR	MIXED	OTHER	OTHER	NONE
9/3/09	R	YELLOW	CLEAR	MIXED	OTHER	OTHER	NONE
9/4/09	F	YELLOW	CLEAR	NONE	OTHER	OTHER	NONE
9/11/09	F	GREEN	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
9/16/09	W	BROWN	CLEAR	MIXED	OTHER	OTHER	NONE
9/24/09	R	YELLOW	CLEAR	NONE	OTHER	OTHER	NONE
10/1/09	R	YELLOW	CLEAR	NONE	OTHER	OTHER	NONE
10/17/09	S	CLEAR	CLEAR	MIXED	OTHER	OTHER	NONE
10/23/09	F	CLEAR	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
10/28/09	W	CLEAR	CLEAR	MIXED	OTHER	OTHER	NONE

**Table 4-E: San Timoteo 4
Cool Season Physical Observations**

DATE	d.o.w ¹⁷	Water Color	Water Clarity	Water Odor	Sediment Color	Sediment Comp.	Sediment Odor
12/1/08	M	BROWN	TURBID	-	OTHER	OTHER	NONE
12/12/08	F	BROWN	TURBID	MIXED	OTHER	OTHER	MIXED
12/20/08	SAT	BROWN	TURBID	MIXED	OTHER	OTHER	MIXED
1/2/09	M	BROWN	TURBID	MIXED	OTHER	OTHER	NONE
1/10/09	SAT	BROWN	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
1/12/09	M	BROWN	TURBID	MIXED	OTHER	OTHER	NONE
1/20/09	T	BROWN	TURBID	HYDROGEN SULFIDE	OTHER	OTHER	NONE
1/29/09	R	BROWN	SEMI-CLEAR	NONE	OTHER	OTHER	NONE
2/3/09	T	BROWN	SEMI-CLEAR	HYDROGEN SULFIDE	OTHER	OTHER	HYDROGEN SULFIDE
2/19/09	R	BROWN	TURBID	MIXED	OTHER	OTHER	NONE
2/27/09	F	BROWN	TURBID	MIXED	OTHER	OTHER	NONE
3/18/09	W	BROWN	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
11/5/09	R	YELLOW	SEMI-CLEAR	MIXED	OTHER	OTHER	NONE
11/14/09	Sat	CLEAR	CLEAR	NONE	OTHER	OTHER	NONE
11/19/09	R	YELLOW	SEMI-CLEAR	NONE	OTHER	OTHER	NONE
11/24/09	T	YELLOW	SEMI-CLEAR	NONE	BROWN	OTHER	NONE

¹⁷ Indicates “day of the week”

**Table 4-F: San Timoteo 4
Contract Lab Results**

	12/20/08	1/29/09	2/3/09	5/15/09	6/19/09	7/30/09	9/11/09	10/17/09	11/19/09	Objective ¹⁸	Unit
<i>Cations</i>											
Total Hardness	400	290	240	140	190	110	120	190	210	190	mg/L
Calcium	97	75	64	35	54	41	44	52	56	-	mg/L
Magnesium	38	25	20	11	14	2.1	1.5	14	16	-	mg/L
Sodium	110	99	94	95	100	87	89	84	91	30	mg/L
Potassium	16	10	8.7	6.8	8.0	5.2	6.3	5.4	6.8	-	mg/L
<i>Anions</i>											
Chloride	84	92	94	88	92	80	59	66	83	20	mg/L
Sulfate	54	63	60	59	63	63	57	51	51	60	mg/L
Nitrate as N	5.6	3.1	2.4	1.5	2.1	0.34	0.41	2.5	3.0	-	mg/L
<i>Aggregate Properties</i>											
Sp. Conductance¹⁹	770	840	780	740	840	850	780	670	750	462	uS/cm
<i>Solids</i>											
TDS	440	530	490	420	510	370	370	370	440	300	mg/L
<i>Aggregate Organic Compounds</i>											
COD	92	110	50	26	32	32	66	28	13	25	mg/L
<i>Nutrients</i>											
Nitrite as N	0.13	0.10	0.14	0.12	0.12	0.060	0.080	0.060	0.10	-	mg/L
Ammonia-nitrogen	0.21	0.13	ND	ND	0.11	ND	ND	0.082	ND	0.098	mg/L
Kjeldahl-nitrogen	2.1	2.0	1.2	1.2	1.4	1.3	2.3	1.4	0.93	-	mg/L
Ortho-phosphate phosphorus	0.88	0.87	0.89	0.19	0.46	0.034	0.054		0.75	-	mg/L
Total Phosphorus	2.3	1.9	1.6	0.40	0.68	0.22	0.24	0.4	0.95	-	mg/L
Total inorganic nitrogen	5.9	3.3	2.5	1.6	2.3	0.4	0.5	2.6	3.1	5	mg/L
Total organic nitrogen	1.9	1.9	1.2	1.2	1.3	1.3	2.3	1.3	0.9	5	mg/L
Total nitrogen	7.8	5.2	3.7	2.8	3.6	1.7	2.8	4.0	4.0	-	mg/L

¹⁸ Refer to QAPP Table 3 for source and description of objectives.

¹⁹ Specific conductance is the same as EC or electrical conductivity.

**Table 4-F: San Timoteo
Contract Lab Results Continued**

	12/20/ 08	1/29 /09	2/3 /09	5/15 /09	6/19 /09	7/30 /09	9/11 /09	10/17/ 09	11/19 /09	Objective ²⁰	Unit	
<i>Metals and Metalloids</i>												
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	4300	µg/L	
Arsenic	ND	32	2.5	ND	ND	ND	1.8	ND	ND	150/340	µg/L	
Beryllium	ND	ND	0.29	ND	ND	ND	ND	ND	ND	4	µg/L	
Cadmium	ND	ND	ND	0.095	ND	ND	ND	0.078	ND	calculated ²¹	µg/L	
Copper	73	ND	19	7.8	6.5	6.1	16	5.8	5.7	calculated ²²	µg/L	
Lead	22	ND	5.6	1.3	0.89	0.15	0.30	0.27	0.93	calculated ²³	µg/L	
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	µg/L	
Nickel	48	ND	15	6.4	6.9	4.3	3	5.3	4.00	4600	µg/L	
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	5/20	µg/L	
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	µg/L	
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.3	µg/L	
Zinc	160	78	46	17	13	7.8	4.7	8.9	9.5	5000	µg/L	
<i>Organochlorine Pesticides and PCBs by EPA 608</i>												
Pesticide & PCBs	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND	various	µg/L

Results shown in red exceed the objective.

ND means non-detect.

Results also available in SWAMP-comparable format.

²⁰ Refer to QAPP Table 3 for source and description of objectives.

²¹ Cadmium Site Specific Objective = $0.85[e^{(0.7852 * \ln(\text{TH})^{-3.490})}]$ where TH is total hardness

²² Copper Site Specific Objective = $0.85[e^{(0.8545 * \ln(\text{TH})^{-1.465})}]$

²³ Lead site specific objective = $0.25[e^{(1.237 * \ln(\text{TH})^{-3.958})}]$