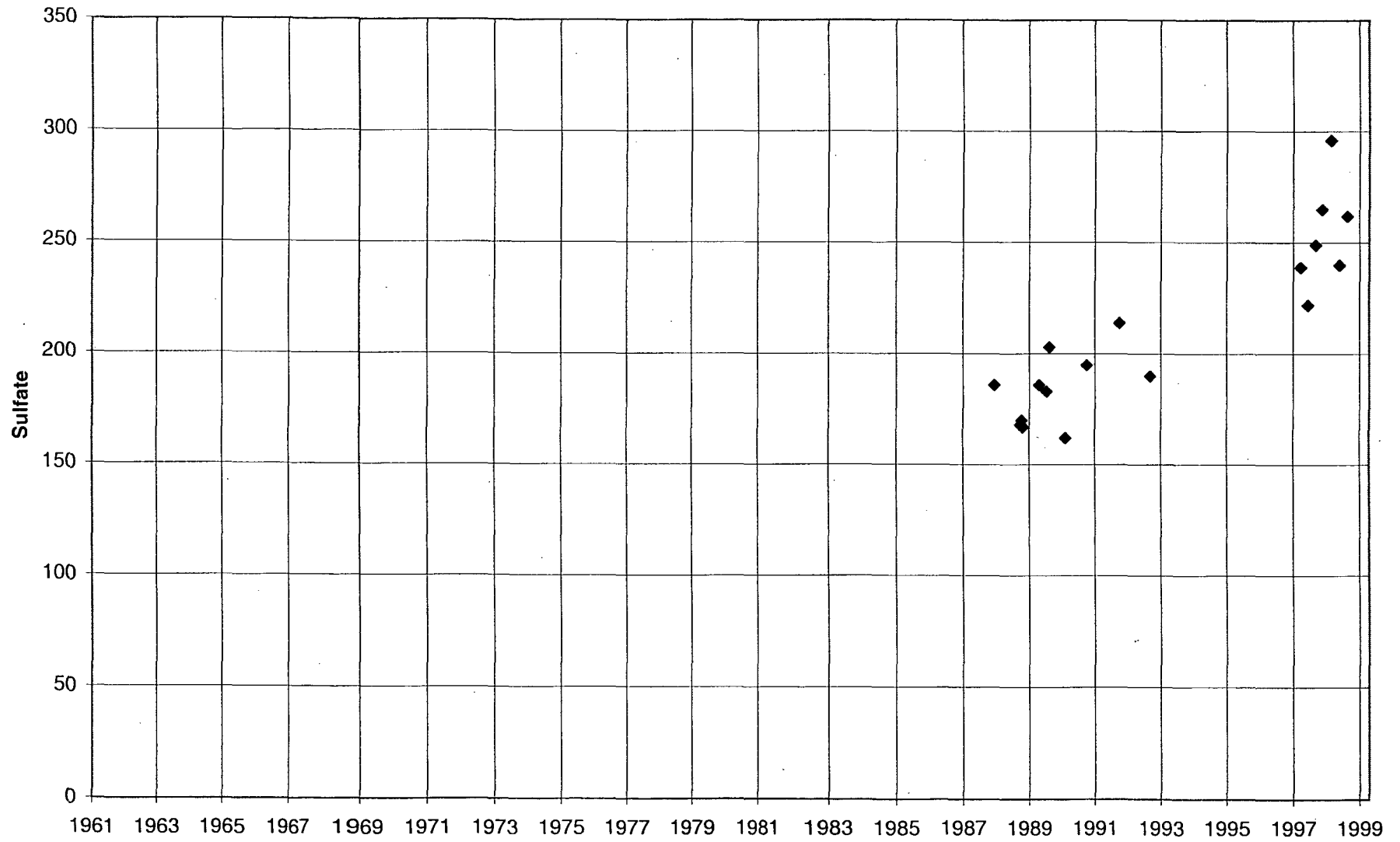
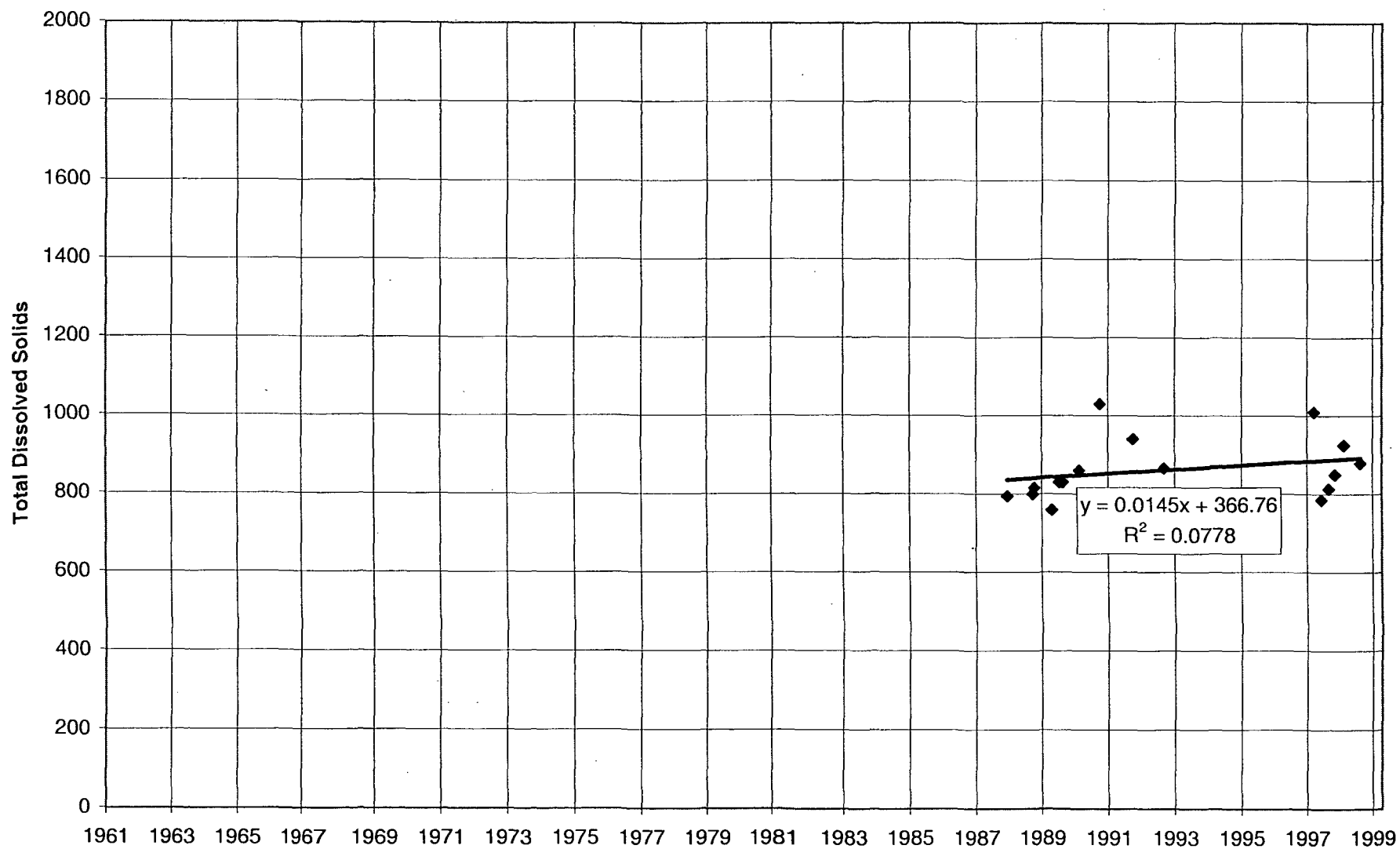


Map ID	Waterbody	HAS	Sample Location Description	Location ID	Latitude	Longitude	Name	Parameter Std.	Std. Unit	Std. Ref	Type	Samples Dates	No. Taken	Exceedance No.	%	Reference
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			total phosphorous	0.1		Basin Plan	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			TDS	750		Basin Plan	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			As	0.05		MCL	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			Cr	0.05		MCL	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			Cu	1		Secondary MCL	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			Ni	0.1		MCL	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
10	Sandia Creek	902.22	Sandia Creek @ Sandia Ck Rd (.5-1 mi us of Sandia Creek confluence)	DFG-978-324			Pb	0.015		MCL	water chemistry	6/9/98	1	1	100%	SDRWOCB (L. Pardy)
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Chloride	250	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	1	9%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Conductivity	900	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	11	100%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	TDS	750	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	11	100%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Fe	0.3	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	4	36%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Mn	0.05	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	2	18%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Nitrate+Nitrite	10	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 5/11/99	11	1	9%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	total phosphorous	0.1	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 5/11/99	6	1	17%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
11	Sandia Creek	902.22	Sandia Creek @ Fallbrook PUD sump (.3 mi us of Sandia Creek confluence)	USGS 11044350	332528	1171454	Sulfates	250	mg/L	Secondary MCL	water chemistry	12/9/97, 3/3/98, 5/26/98, 8/4/98, 11/9/98, 2/10/99, 5/11/99, 9/28/99, 12/6/99, 3/7/00, 6/2/00	11	5	45%	Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.

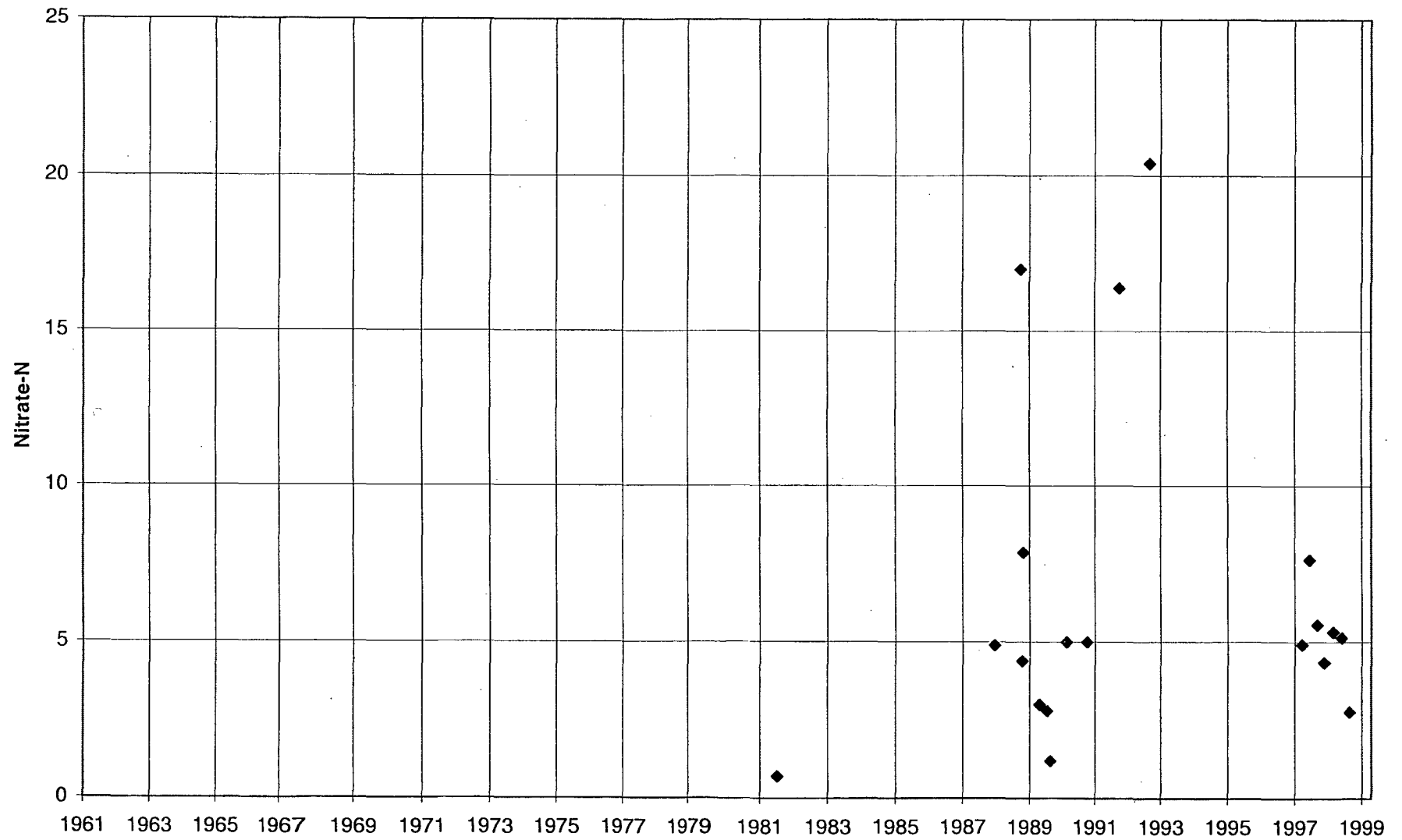
Sandia Creek near Fallbrook



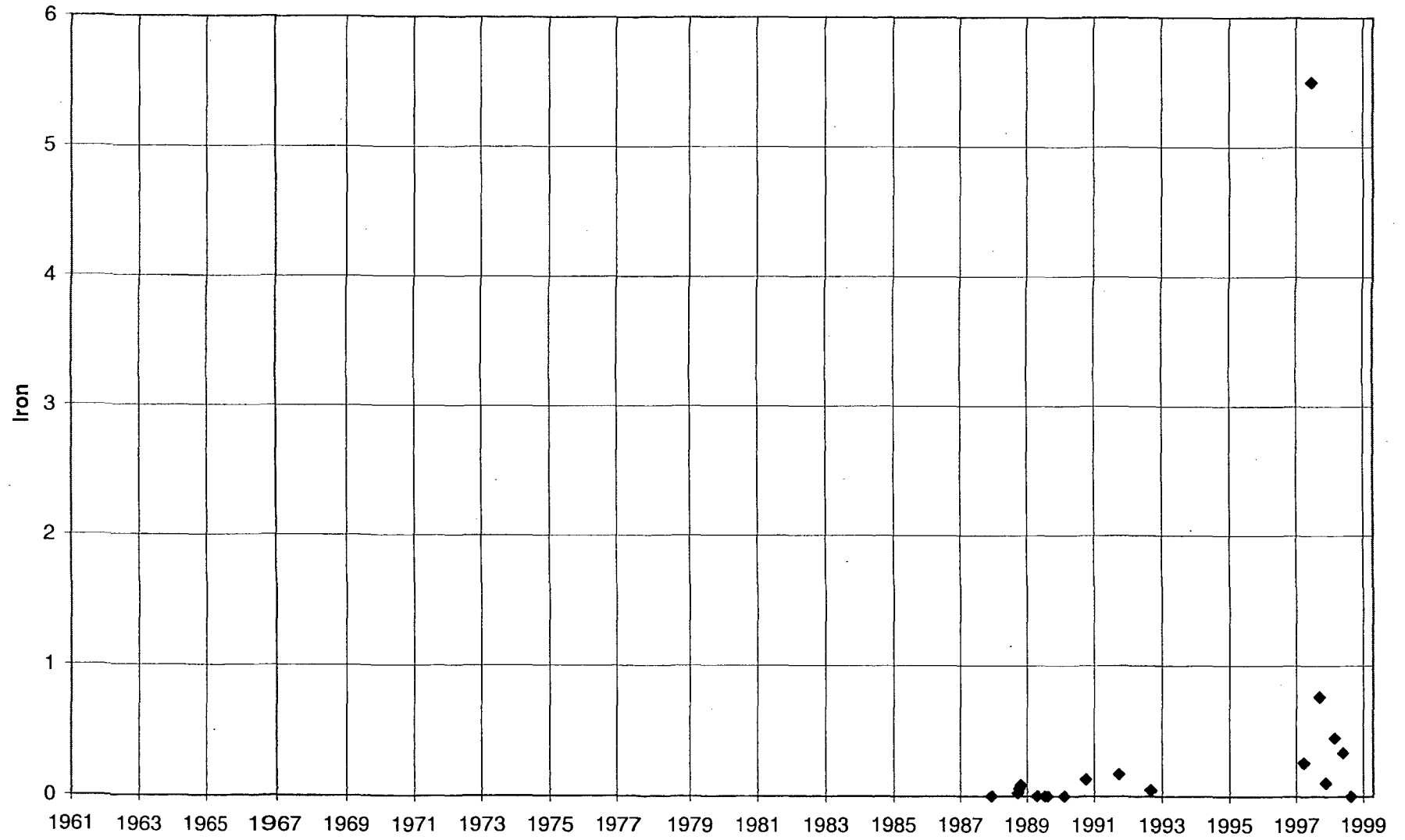
Sandia Creek near Fallbrook



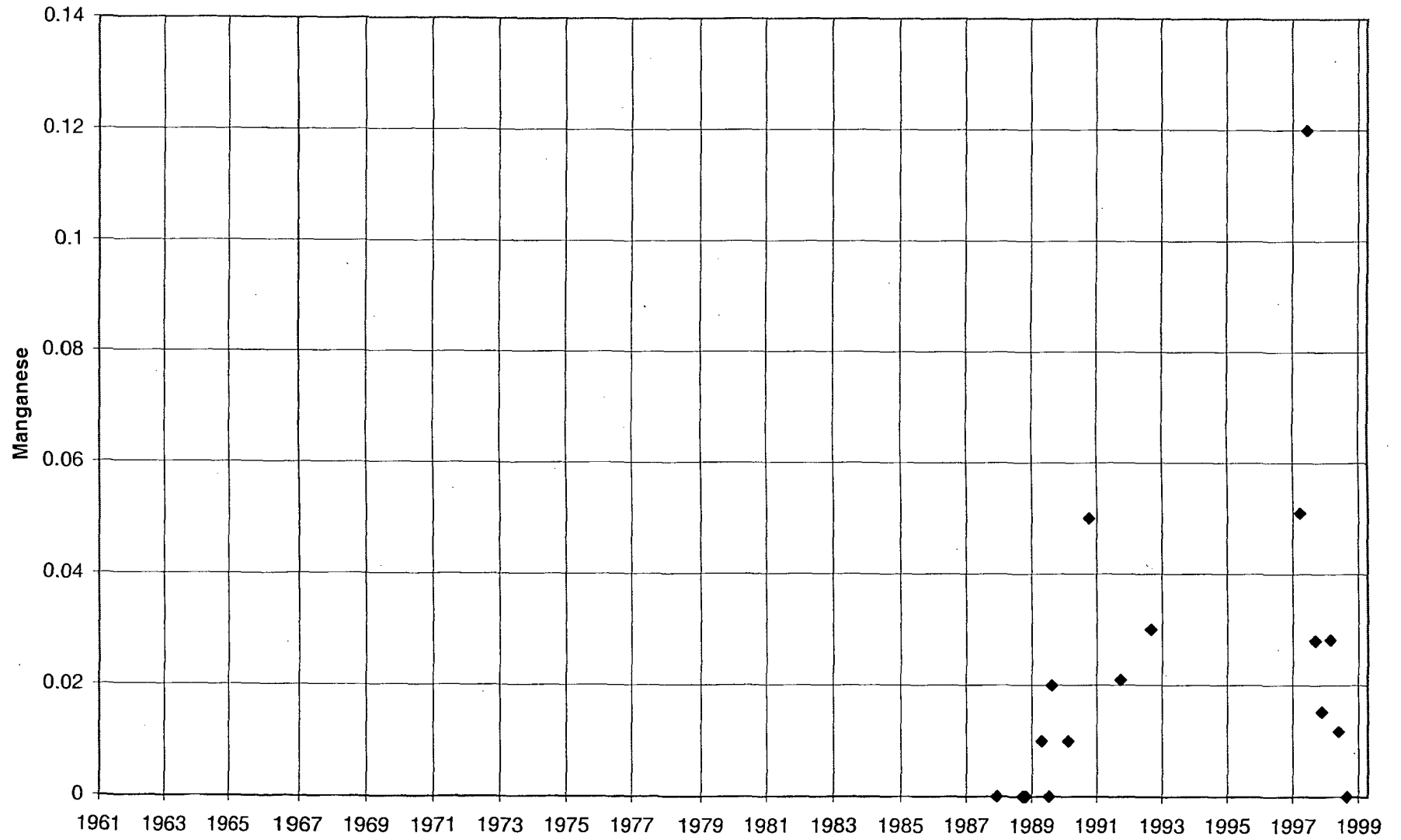
Sandia Creek near Fallbrook



Sandia Creek near Fallbrook



Sandia Creek near Fallbrook



fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
03	02	surface water	Zinc	ND	mg/L	0.01	5/26/98	5
09	02	surface water	Zinc	ND	mg/L	0.03	12/6/99	12
08	02	surface water	Zinc	ND	mg/L	0.02	9/28/99	9
01	02	surface water	Zinc	0.017	mg/L	0.0100	12/9/97	12
06	02	surface water	Zinc	0.0111	mg/L	0.01	2/10/99	2
10	02	surface water	Zinc	ND	mg/L	0.01	3/7/00	3
11	02	surface water	Zinc	ND	mg/L	0.01	6/1/00	6
02	02	surface water	Zinc	ND	mg/L	0.03	3/3/98	3
07	02	surface water	Zinc	ND	mg/L	0.02	5/11/99	5
05	02	surface water	Zinc	ND	mg/L	0.01	11/9/98	11
04	02	surface water	Zinc	ND	mg/L	0.01	8/4/98	8
11	02	surface water	Total Organic Carbon	6.0	mg/L	0.5	6/1/00	6
10	02	surface water	Total Organic Carbon	5.6	mg/L	0.1	3/7/00	3
05	02	surface water	Total Organic Carbon	2.66	mg/L	1	11/9/98	11
01	02	surface water	Total Organic Carbon	4.27	mg/L	1.00	12/9/97	12
09	02	surface water	Total Organic Carbon	0.5	mg/L	0.5	12/6/99	12
07	02	surface water	Total Organic Carbon	1.5	mg/L	1	5/11/99	5
06	02	surface water	Total Organic Carbon	1.53	mg/L	1	2/10/99	2
04	02	surface water	Total Organic Carbon	1.66	mg/L	1	8/4/98	8
03	02	surface water	Total Organic Carbon	3.03	mg/L	1	5/26/98	5
02	02	surface water	Total Organic Carbon	5.04	mg/L	1	3/3/98	3
08	02	surface water	Total Organic Carbon	1.5	mg/L	0.5	9/28/99	9
05	02	surface water	Total Dissolved Solids	925	mg/L	10	11/9/98	11
11	02	surface water	Total Dissolved Solids	1,030	mg/L	5	6/1/00	6
03	02	surface water	Total Dissolved Solids	814	mg/L	10	5/26/98	5
02	02	surface water	Total Dissolved Solids	786	mg/L	10	3/3/98	3
01	02	surface water	Total Dissolved Solids	1010	mg/L	10.0	12/9/97	12
07	02	surface water	Total Dissolved Solids	879	mg/L	10	5/11/99	5
06	02	surface water	Total Dissolved Solids	854	mg/L	10	2/10/99	2
09	02	surface water	Total Dissolved Solids	908	mg/L	10	12/6/99	12
08	02	surface water	Total Dissolved Solids	913	mg/L	10	9/28/99	9
10	02	surface water	Total Dissolved Solids	966	mg/L	5	3/7/00	3
04	02	surface water	Total Dissolved Solids	850	mg/L	10	8/4/98	8
05	02	surface water	Total Coliform	>1600	mpn/100ml	2	11/9/98	11
02	02	surface water	Total Coliform	>1600	mpn/100ml	2	3/3/98	3
06	02	surface water	Total Coliform	500	mpn/100ml	2	2/10/99	2
03	02	surface water	Total Coliform	1600	mpn/100ml	2	5/26/98	5
01	02	surface water	Total Coliform	>1600	mpn/100ml	2	12/9/97	12
08	02	surface water	Total Coliform	300	mpn/100ml	2	9/28/99	9

fldRound	fldWell	fldMatrix	fldNewName	fldWell2	fldUnits	fldDL	fldSampleDate	fldSampleMont
09	02	surface water	Total Coliform	900	mpn/100ml	2	12/6/99	12
04	02	surface water	Total Coliform	>1600	mpn/100ml	2	8/4/98	8
07	02	surface water	Total Coliform	>23	mpn/100ml	2	5/11/99	5
11	02	surface water	Total Coliform	240	MPN/100 m	2	6/1/00	6
10	02	surface water	Total Coliform	>1,600	MPN/100 m	3.0	3/7/00	3
07	02	surface water	Surfactants (MBAS)	0.116	mg/L	0.1	5/11/99	5
05	02	surface water	Surfactants (MBAS)	ND	mg/L	0.1	11/9/98	11
04	02	surface water	Surfactants (MBAS)	ND	mg/L	0.1	8/4/98	8
02	02	surface water	Surfactants (MBAS)	ND	mg/L	0.1	3/3/98	3
03	02	surface water	Surfactants (MBAS)	ND	mg/L	0.1	5/26/98	5
01	02	surface water	Surfactants (MBAS)	ND	mg/L	0.100	12/9/97	12
06	02	surface water	Surfactants (MBAS)	NS	mg/L	0.1	2/10/99	2
10	02	surface water	Surfactants (MBAS)	ND	mg/L	0.03	3/7/00	3
09	02	surface water	Surfactants (MBAS)	ND	mg/L	0.05	12/6/99	12
08	02	surface water	Surfactants (MBAS)	ND	mg/L	0.05	9/28/99	9
11	02	surface water	Surfactants (MBAS)	ND	mg/L	0.03	6/1/00	6
02	02	surface water	Sulfate	222	mg/L	4	3/3/98	3
07	02	surface water	Sulfate	262	mg/L	50	5/11/99	5
11	02	surface water	Sulfate	273	mg/L	5	6/1/00	6
10	02	surface water	Sulfate	262	mg/L	5	3/7/00	3
09	02	surface water	Sulfate	224	mg/L	10	12/6/99	12
04	02	surface water	Sulfate	265	mg/L	50	8/4/98	8
01	02	surface water	Sulfate	239	mg/L	20.0	12/9/97	12
06	02	surface water	Sulfate	240	mg/L	5	2/10/99	2
05	02	surface water	Sulfate	296	mg/L	5	11/9/98	11
03	02	surface water	Sulfate	249	mg/L	50	5/26/98	5
08	02	surface water	Sulfate	218	mg/L	10	9/28/99	9
11	02	surface water	Sodium	95.1	mg/L	0.25	6/1/00	6
03	02	surface water	Sodium	87.5	mg/L	0.3	5/26/98	5
01	02	surface water	Sodium	96.7	mg/L	0.300	12/9/97	12
04	02	surface water	Sodium	96.4	mg/L	0.3	8/4/98	8
05	02	surface water	Sodium	98.3	mg/L	0.3	11/9/98	11
07	02	surface water	Sodium	87.8	mg/L	0.3	5/11/99	5
10	02	surface water	Sodium	96.0	mg/L	0.25	3/7/00	3
09	02	surface water	Sodium	93.3	mg/L	0.5	12/6/99	12
02	02	surface water	Sodium	99	mg/L	4	3/3/98	3
08	02	surface water	Sodium	87.2	mg/L	0.3	9/28/99	9
06	02	surface water	Sodium	90.3	mg/L	0.3	2/10/99	2
08	02	surface water	Potassium	3.6	mg/L	1.0	9/28/99	9

fldRound	fldWell	fldMatrix	fldNewName	fldWell2	fldUnits	fldDL	fldSampleDate	fldSampleMont
07	02	surface water	Potassium	2.47	mg/L	1	5/11/99	5
02	02	surface water	Potassium	3	mg/L	2	3/3/98	3
09	02	surface water	Potassium	2.8	mg/L	1.0	12/6/99	12
01	02	surface water	Potassium	3.35	mg/L	0.300	12/9/97	12
03	02	surface water	Potassium	3.09	mg/L	0.3	5/26/98	5
04	02	surface water	Potassium	3.08	mg/L	0.3	8/4/98	8
05	02	surface water	Potassium	3.35	mg/L	0.3	11/9/98	11
06	02	surface water	Potassium	2.72	mg/L	1	2/10/99	2
11	02	surface water	Potassium	3.3	mg/L	0.5	6/1/00	6
10	02	surface water	Potassium	3.4	mg/L	0.5	3/7/00	3
02	02	surface water	Phosphorus	0.225	mg/L	0.01	3/3/98	3
03	02	surface water	Phosphorus	0.014	mg/L	0.01	5/26/98	5
04	02	surface water	Phosphorus	0.03	mg/L	0.01	8/4/98	8
06	02	surface water	Phosphorus	NS	mg/L	0.01	2/10/99	2
05	02	surface water	Phosphorus	ND	mg/L	0.01	11/9/98	11
07	02	surface water	Phosphorus	0.022	mg/L	0.01	5/11/99	5
01	02	surface water	Phosphorus	0.063	mg/L	0.01	12/9/97	12
06	02	surface water	Phosphate	NS	mg/L	0.3	2/10/99	2
09	02	surface water	Phosphate	ND	mg/L	0.3	12/6/99	12
08	02	surface water	Phosphate	ND	mg/L	0.3	9/28/99	9
07	02	surface water	Phosphate	NS	mg/L	0.3	5/11/99	5
10	02	surface water	Phosphate	0.8	mg/L	0.30	3/7/00	3
03	02	surface water	Phosphate	NS	mg/L	0.3	5/26/98	5
02	02	surface water	Phosphate	NS	mg/L	0.3	3/3/98	3
11	02	surface water	Phosphate	ND	mg/L	0.30	6/1/00	6
04	02	surface water	Phosphate	NS	mg/L	0.3	8/4/98	8
05	02	surface water	Phosphate	NS	mg/L	0.3	11/9/98	11
01	02	surface water	Phosphate	NS	mg/L	0.3	12/9/97	12
01	02	surface water	pH	8.21	pH units	2.0-12.5	12/9/97	12
03	02	surface water	pH	8.13	pH units	2.5-12.0	5/26/98	5
02	02	surface water	pH	8.2	pH units	2.0-12.5	3/3/98	3
10	02	surface water	pH	8.28	mg/L	0.01	3/7/00	3
04	02	surface water	pH	8.15	pH units	2.5-12.0	8/4/98	8
09	02	surface water	pH	8.14	pH units	1.00	12/6/99	12
06	02	surface water	pH	8.33	pH units		2/10/99	2
11	02	surface water	pH	7.36	mg/L	0.01	6/1/00	6
10	02	surface water	pH	8.28	mg/L	0.01	3/7/00	3
08	02	surface water	pH	8.32	pH units	1.00	9/28/99	9
08	02	surface water	pH	8.32	pH units	1.00	9/28/99	9

fldRound	fldWell	fldMatrix	fldNewName	fldWell2	fldUnits	fldDL	fldSampleDate	fldSampleMont
11	02	surface water	pH	7.36	mg/L	0.01	6/1/00	6
09	02	surface water	pH	8.14	pH units	1.00	12/6/99	12
07	02	surface water	pH	8.24	pH units	2.5-12.0	5/11/99	5
07	02	surface water	Oil and Grease	ND	mg/L	1.01	5/11/99	5
08	02	surface water	Oil and Grease	ND	mg/L	1.0	9/28/99	9
11	02	surface water	Oil and Grease	ND	mg/L	0.5	6/1/00	6
03	02	surface water	Oil and Grease	ND	mg/L	0.971	5/26/98	5
11	02	surface water	Oil and Grease	ND	mg/L	0.5	6/1/00	6
09	02	surface water	Oil and Grease	ND	mg/L	1.0	12/6/99	12
05	02	surface water	Oil and Grease	ND	mg/L	1	11/9/98	11
06	02	surface water	Oil and Grease	NS	mg/L	1	2/10/99	2
10	02	surface water	Oil and Grease	ND	mg/L	0.5	3/7/00	3
10	02	surface water	Oil and Grease	ND	mg/L	0.5	3/7/00	3
02	02	surface water	Oil and Grease	ND	mg/L	0.971	3/3/98	3
04	02	surface water	Oil and Grease	ND	mg/L	1.35	8/4/98	8
09	02	surface water	Oil and Grease	ND	mg/L	1.0	12/6/99	12
01	02	surface water	Oil and Grease	ND	mg/L	1.23	12/9/97	12
08	02	surface water	Oil and Grease	ND	mg/L	1.0	9/28/99	9
10	02	surface water	Nitrogen	0.1	mg/L	0.05	3/7/00	3
07	02	surface water	Nitrogen	0.507	mg/L	0.4	5/11/99	5
05	02	surface water	Nitrogen	0.781	mg/L	0.1	11/9/98	11
06	02	surface water	Nitrogen	NS	mg/L	0.1	2/10/99	2
04	02	surface water	Nitrogen	NS	mg/L	0.1	8/4/98	8
09	02	surface water	Nitrogen	NS	mg/L	0.1	12/6/99	12
03	02	surface water	Nitrogen	ND	mg/Kg	0.5	5/26/98	5
02	02	surface water	Nitrogen	NS	mg/L	0.1	3/3/98	3
06	02	surface water	Nitrogen	NS	mg/L	0.1	2/10/99	2
02	02	surface water	Nitrogen	NS	mg/L	0.1	3/3/98	3
08	02	surface water	Nitrogen	0.8	mg/L	0.1	9/28/99	9
06	02	surface water	Nitrogen	NS	mg/L	0.1	2/10/99	2
04	02	surface water	Nitrogen	NS	mg/L	0.1	8/4/98	8
09	02	surface water	Nitrogen	NS	mg/L	0.1	12/6/99	12
01	02	surface water	Nitrogen	0.38	mg/L	0.100	12/9/97	12
04	02	surface water	Nitrogen	NS	mg/L	0.1	8/4/98	8
02	02	surface water	Nitrogen	NS	mg/L	0.1	3/3/98	3
09	02	surface water	Nitrite	ND	mg/L	0.02	12/6/99	12
08	02	surface water	Nitrite	ND	mg/L	0.02	9/28/99	9
10	02	surface water	Nitrate-N	30.1	mg/L	0.05	3/7/00	3
07	02	surface water	Nitrate-N	2.77	mg/L	0.2	5/11/99	5

fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
06	02	surface water	Nitrate-N	5.15	mg/L	0.05	2/10/99	2
09	02	surface water	Nitrate-N	2.6	mg/L	0.1	12/6/99	12
03	02	surface water	Nitrate-N	5.56	mg/L	0.5	5/26/98	5
08	02	surface water	Nitrate-N	2.4	mg/L	0.1	9/28/99	9
02	02	surface water	Nitrate-N	7.63	mg/L	2	3/3/98	3
11	02	surface water	Nitrate-N	5.0	mg/L	0.05	6/1/00	6
01	02	surface water	Nitrate-N	4.92	mg/L	1.00	12/9/97	12
04	02	surface water	Nitrate-N	4.36	mg/L	0.25	8/4/98	8
05	02	surface water	Nitrate-N	5.33	mg/L	0.05	11/9/98	11
09	02	surface water	Mercury	NS	mg/L	0.0002	12/6/99	12
01	02	surface water	Mercury	ND	mg/L	0.000200	12/9/97	12
11	02	surface water	Mercury	NS	mg/L	0.0002	6/1/00	6
10	02	surface water	Mercury	ND	mg/L	0.0002	3/7/00	3
03	02	surface water	Mercury	ND	mg/L	0.0002	5/26/98	5
08	02	surface water	Mercury	ND	mg/L	0.0002	9/28/99	9
06	02	surface water	Mercury	NS	mg/L	0.0002	2/10/99	2
04	02	surface water	Mercury	NS	mg/L	0.0002	8/4/98	8
07	02	surface water	Mercury	ND	mg/L	0.0002	5/11/99	5
02	02	surface water	Mercury	NS	mg/L	0.0002	3/3/98	3
05	02	surface water	Mercury	ND	mg/L	0.0002	11/9/98	11
08	02	surface water	Manganese	ND	mg/L	0.01	9/28/99	9
09	02	surface water	Manganese	0.03	mg/L	0.01	12/6/99	12
02	02	surface water	Manganese	0.12	mg/L	0.01	3/3/98	3
01	02	surface water	Manganese	0.051	mg/L	0.0100	12/9/97	12
05	02	surface water	Manganese	0.0282	mg/L	0.01	11/9/98	11
07	02	surface water	Manganese	ND	mg/L	0.01	5/11/99	5
06	02	surface water	Manganese	0.0118	mg/L	0.01	2/10/99	2
03	02	surface water	Manganese	0.028	mg/L	0.01	5/26/98	5
11	02	surface water	Manganese	ND	mg/L	0.005	6/1/00	6
10	02	surface water	Manganese	0.03	mg/L	0.005	3/7/00	3
04	02	surface water	Manganese	0.0153	mg/L	0.01	8/4/98	8
01	02	surface water	Magnesium	61.9	mg/L	0.200	12/9/97	12
09	02	surface water	Magnesium	54.0	mg/L	0.5	12/6/99	12
06	02	surface water	Magnesium	52	mg/L	0.2	2/10/99	2
08	02	surface water	Magnesium	47.5	mg/L	0.2	9/28/99	9
03	02	surface water	Magnesium	50.6	mg/L	0.2	5/26/98	5
11	02	surface water	Magnesium	54.7	mg/L	0.2	6/1/00	6
02	02	surface water	Magnesium	48	mg/L	0.1	3/3/98	3
04	02	surface water	Magnesium	52.5	mg/L	0.2	8/4/98	8

fldRound	fldWell	fldMatrix	fldNewName	fldWell2	fldUnits	fldDL	fldSampleDate	fldSampleMont
10	02	surface water	Magnesium	53.8	mg/L	0.20	3/7/00	3
05	02	surface water	Magnesium	55	mg/L	0.2	11/9/98	11
07	02	surface water	Magnesium	51.6	mg/L	0.2	5/11/99	5
01	02	surface water	Lead	ND	mg/L	0.0200	12/9/97	12
05	02	surface water	Lead	ND	mg/L	0.001	11/9/98	11
06	02	surface water	Lead	NS	mg/L	0.001	2/10/99	2
07	02	surface water	Lead	ND	mg/L	0.001	5/11/99	5
04	02	surface water	Lead	ND	mg/L	0.001	8/4/98	8
03	02	surface water	Lead	ND	mg/L	0.001	5/26/98	5
10	02	surface water	Lead	0.011	mg/L	0.005	3/7/00	3
08	02	surface water	Lead	ND	mg/L	0.005	9/28/99	9
11	02	surface water	Lead	ND	mg/L	0.005	6/1/00	6
09	02	surface water	Lead	ND	mg/L	0.05	12/6/99	12
02	02	surface water	Lead	ND	mg/L	0.015	3/3/98	3
01	02	surface water	Iron	0.257	mg/L	0.0500	12/9/97	12
07	02	surface water	Iron	ND	mg/L	0.05	5/11/99	5
06	02	surface water	Iron	0.336	mg/L	0.05	2/10/99	2
11	02	surface water	Iron	ND	mg/L	0.03	6/1/00	6
05	02	surface water	Iron	0.451	mg/L	0.05	11/9/98	11
03	02	surface water	Iron	0.765	mg/L	0.05	5/26/98	5
04	02	surface water	Iron	0.103	mg/L	0.05	8/4/98	8
10	02	surface water	Iron	ND	mg/L	0.03	3/7/00	3
09	02	surface water	Iron	0.06	mg/L	0.05	12/6/99	12
02	02	surface water	Iron	5.5	mg/L	0.1	3/3/98	3
08	02	surface water	Iron	ND	mg/L	0.05	9/28/99	9
05	02	surface water	Hydroxide	ND	mg/L	0.5	11/9/98	11
01	02	surface water	Hydroxide	ND	mg/L	1.00	12/9/97	12
10	02	surface water	Hydroxide	ND	mg/L	0.5	3/7/00	3
03	02	surface water	Hydroxide	ND	mg/L	0.5	5/26/98	5
04	02	surface water	Hydroxide	ND	mg/L	0.5	8/4/98	8
09	02	surface water	Hydroxide	ND	mg/L	2	12/6/99	12
08	02	surface water	Hydroxide	ND	mg/L	0.5	9/28/99	9
06	02	surface water	Hydroxide	NS	mg/L	0.5	2/10/99	2
02	02	surface water	Hydroxide	ND	mg/L	0.5	3/3/98	3
07	02	surface water	Hydroxide	ND	mg/L	0.5	5/11/99	5
11	02	surface water	Hydroxide	ND	mg/L	0.5	6/1/00	6
06	02	surface water	Hardness (CaCO3)	559	mg/L	1	2/10/99	2
07	02	surface water	Hardness (CaCO3)	466	mg/L	2	5/11/99	5
05	02	surface water	Hardness (CaCO3)	551	mg/L	1	11/9/98	11

fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
04	02	surface water	Hardness (CaCO3)	525	mg/L	5	8/4/98	8
01	02	surface water	Hardness (CaCO3)	555	mg/L	10.0	12/9/97	12
02	02	surface water	Hardness (CaCO3)	442	mg/L	10	3/3/98	3
10	02	surface water	Hardness (CaCO3)	554	mg/L	1	3/7/00	3
09	02	surface water	Hardness (CaCO3)	514	mg/L	2	12/6/99	12
08	02	surface water	Hardness (CaCO3)	506	mg/L	2	9/28/99	9
03	02	surface water	Hardness (CaCO3)	442	mg/L	5	5/26/98	5
11	02	surface water	Hardness (CaCO3)	542	mg/L	1	6/1/00	6
08	02	surface water	Fluoride	0.4	mg/L	0.1	9/28/99	9
10	02	surface water	Fluoride	0.4	mg/L	0.1	3/7/00	3
07	02	surface water	Fluoride	0.285	mg/L	0.1	5/11/99	5
04	02	surface water	Fluoride	0.307	mg/L	0.1	8/4/98	8
11	02	surface water	Fluoride	0.6	mg/L	0.1	6/1/00	6
09	02	surface water	Fluoride	0.4	mg/L	0.2	12/6/99	12
03	02	surface water	Fluoride	0.316	mg/L	0.2	5/26/98	5
01	02	surface water	Fluoride	ND	mg/L	0.200	12/9/97	12
06	02	surface water	Fluoride	0.283	mg/L	0.1	2/10/99	2
05	02	surface water	Fluoride	0.298	mg/L	0.1	11/9/98	11
02	02	surface water	Fluoride	0.273	mg/L	0.2	3/3/98	3
09	02	surface water	Fecal Coliform	2	mpn/100ml	2	12/6/99	12
05	02	surface water	Fecal Coliform	1600	mpn/100ml	2	11/9/98	11
08	02	surface water	Fecal Coliform	130	mpn/100ml	2	9/28/99	9
03	02	surface water	Fecal Coliform	220	mpn/100ml	2	5/26/98	5
07	02	surface water	Fecal Coliform	>23	mpn/100ml	2	5/11/99	5
06	02	surface water	Fecal Coliform	220	mpn/100ml	2	2/10/99	2
01	02	surface water	Fecal Coliform	300	mpn/100ml	2	12/9/97	12
02	02	surface water	Fecal Coliform	110	mpn/100ml	2	3/3/98	3
11	02	surface water	Fecal Coliform	50	MPN/mL	2	6/1/00	6
10	02	surface water	Fecal Coliform	1,600	MPN/100 m	2	3/7/00	3
04	02	surface water	Fecal Coliform	170	mpn/100ml	2	8/4/98	8
06	02	surface water	Cyanide (Total)	NS	mg/L	0.005	2/10/99	2
06	02	surface water	Cyanide (Total)	NS	mg/L	0.005	2/10/99	2
04	02	surface water	Cyanide (Total)	NS	mg/L	0.005	8/4/98	8
11	02	surface water	Cyanide (Total)	NS	mg/L	0.01	6/1/00	6
09	02	surface water	Cyanide (Total)	NS	mg/L	0.005	12/6/99	12
04	02	surface water	Cyanide (Total)	NS	mg/L	0.005	8/4/98	8
01	02	surface water	Cyanide (Total)	ND	mg/L	0.00500	12/9/97	12
02	02	surface water	Cyanide (Total)	NS	mg/L	0.005	3/3/98	3
09	02	surface water	Cyanide (Total)	NS	mg/L	0.005	12/6/99	12

fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
03	02	surface water	Cyanide (Total)	ND	mg/L	0.005	5/26/98	5
05	02	surface water	Cyanide (Total)	ND	mg/L	0.005	11/9/98	11
07	02	surface water	Cyanide (Total)	ND	mg/L	0.005	5/11/99	5
08	02	surface water	Cyanide (Total)	ND	mg/L	0.01	9/28/99	9
10	02	surface water	Cyanide (Total)	ND	mg/L	0.01	3/7/00	3
02	02	surface water	Cyanide (Total)	NS	mg/L	0.005	3/3/98	3
09	02	surface water	Copper	0.03	mg/L	0.02	12/6/99	12
08	02	surface water	Copper	ND	mg/L	0.005	9/28/99	9
05	02	surface water	Copper	ND	mg/L	0.005	11/9/98	11
02	02	surface water	Copper	ND	mg/L	0.02	3/3/98	3
04	02	surface water	Copper	ND	mg/L	0.005	8/4/98	8
11	02	surface water	Copper	ND	mg/L	0.005	6/1/00	6
03	02	surface water	Copper	ND	mg/L	0.005	5/26/98	5
06	02	surface water	Copper	NS	mg/L	0.005	2/10/99	2
01	02	surface water	Copper	ND	mg/L	0.00500	12/9/97	12
07	02	surface water	Copper	ND	mg/L	0.005	5/11/99	5
10	02	surface water	Copper	ND	mg/L	0.005	3/7/00	3
09	02	surface water	Conductivity	1430	umhos/cm	10	12/6/99	12
05	02	surface water	Conductivity	1370	umhos/cm	1	11/9/98	11
06	02	surface water	Conductivity	1300	umhos/cm	1	2/10/99	2
07	02	surface water	Conductivity	1360	umhos/cm	1	5/11/99	5
11	02	surface water	Conductivity	1,490	mg/L	5	6/1/00	6
10	02	surface water	Conductivity	1,520	mg/L	5	3/7/00	3
08	02	surface water	Conductivity	1430	umhos/cm	10	9/28/99	9
04	02	surface water	Conductivity	1290	umhos/cm	1	8/4/98	8
01	02	surface water	Conductivity	1620	umhos/cm	1.00	12/9/97	12
02	02	surface water	Conductivity	1155	umhos/cm	1	3/3/98	3
03	02	surface water	Conductivity	1150	umhos/cm	1	5/26/98	5
11	02	surface water	Chloride	230	mg/L	0.5	6/1/00	6
01	02	surface water	Chloride	267	mg/L	20.0	12/9/97	12
02	02	surface water	Chloride	158	mg/L	20	3/3/98	3
06	02	surface water	Chloride	179	mg/L	1	2/10/99	2
08	02	surface water	Chloride	219	mg/L	1	9/28/99	9
09	02	surface water	Chloride	215	mg/L	1	12/6/99	12
05	02	surface water	Chloride	192	mg/L	1	11/9/98	11
11	02	surface water	Chloride	230	mg/L	0.5	6/1/00	6
10	02	surface water	Chloride	224	mg/L	0.5	3/7/00	3
09	02	surface water	Chloride	215	mg/L	1	12/6/99	12
10	02	surface water	Chloride	224	mg/L	0.5	3/7/00	3

fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
04	02	surface water	Chloride	227	mg/L	1	8/4/98	8
03	02	surface water	Chloride	225	mg/L	50	5/26/98	5
08	02	surface water	Chloride	219	mg/L	1	9/28/99	9
07	02	surface water	Chloride	175	mg/L	1	5/11/99	5
04	02	surface water	Carbonate	2.32	mg/L	0.5	8/4/98	8
02	02	surface water	Carbonate	1.98	mg/L	0.5	3/3/98	3
03	02	surface water	Carbonate	1.99	mg/L	0.5	5/26/98	5
07	02	surface water	Carbonate	1.77	mg/L	0.5	5/11/99	5
05	02	surface water	Carbonate	2.32	mg/L	0.5	11/9/98	11
10	02	surface water	Carbonate	ND	mg/L	0.5	3/7/00	3
11	02	surface water	Carbonate	20	mg/L	0.5	6/1/00	6
08	02	surface water	Carbonate	20	mg/L	0.5	9/28/99	9
09	02	surface water	Carbonate	12	mg/L	2	12/6/99	12
01	02	surface water	Carbonate	2.83	mg/L	1.00	12/9/97	12
06	02	surface water	Carbonate	3.71	mg/L	0.5	2/10/99	2
09	02	surface water	Calcium	114	mg/L	0.5	12/6/99	12
08	02	surface water	Calcium	99.1	mg/L	0.1	9/28/99	9
03	02	surface water	Calcium	95.3	mg/L	0.1	5/26/98	5
01	02	surface water	Calcium	141	mg/L	0.100	12/9/97	12
04	02	surface water	Calcium	108	mg/L	0.1	8/4/98	8
05	02	surface water	Calcium	112	mg/L	0.1	11/9/98	11
06	02	surface water	Calcium	104	mg/L	0.1	2/10/99	2
10	02	surface water	Calcium	110	mg/L	0.10	3/7/00	3
02	02	surface water	Calcium	110	mg/L	0.2	3/3/98	3
07	02	surface water	Calcium	108	mg/L	0.1	5/11/99	5
11	02	surface water	Calcium	112	mg/L	0.1	6/1/00	6
04	02	surface water	Boron	0.161	mg/L	0.1	8/4/98	8
03	02	surface water	Boron	ND	mg/L	0.5	5/26/98	5
10	02	surface water	Boron	0.1	mg/L	0.1	3/7/00	3
05	02	surface water	Boron	0.197	mg/L	0.1	11/9/98	11
06	02	surface water	Boron	0.141	mg/L	0.1	2/10/99	2
01	02	surface water	Boron	ND	mg/L	0.5	12/9/97	12
09	02	surface water	Boron	ND	mg/L	0.2	12/6/99	12
08	02	surface water	Boron	0.1	mg/L	0.1	9/28/99	9
02	02	surface water	Boron	ND	mg/L	0.5	3/3/98	3
11	02	surface water	Boron	0.2	mg/L	0.1	6/1/00	6
07	02	surface water	Boron	ND	mg/L	0.1	5/11/99	5
01	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2.00	12/9/97	12
11	02	surface water	Biochemical Oxygen Dem	NS	mg/L	2	6/1/00	6

fldRound	fldWell	fldMatrix	fldNewName	fldWell2	fldUnits	fldDL	fldSampleDate	fldSampleMont
04	02	surface water	Biochemical Oxygen Dem	NS	mg/L	2	8/4/98	8
10	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2	3/7/00	3
05	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2	11/9/98	11
02	02	surface water	Biochemical Oxygen Dem	NS	mg/L	2	3/3/98	3
08	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2	9/28/99	9
03	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2	5/26/98	5
09	02	surface water	Biochemical Oxygen Dem	NS	mg/L	2	12/6/99	12
07	02	surface water	Biochemical Oxygen Dem	ND	mg/L	2	5/11/99	5
06	02	surface water	Biochemical Oxygen Dem	NS	mg/L	2	2/10/99	2
04	02	surface water	Bicarbonate	175	mg/L	1	8/4/98	8
07	02	surface water	Bicarbonate	164	mg/L	1	5/11/99	5
02	02	surface water	Bicarbonate	133	mg/L	1	3/3/98	3
09	02	surface water	Bicarbonate	156	mg/L	2	12/6/99	12
01	02	surface water	Bicarbonate	151	mg/L	1.00	12/9/97	12
06	02	surface water	Bicarbonate	168	mg/L	1	2/10/99	2
03	02	surface water	Bicarbonate	157	mg/L	1	5/26/98	5
11	02	surface water	Bicarbonate	146	mg/L	1	6/1/00	6
08	02	surface water	Bicarbonate	140	mg/L	1	9/28/99	9
10	02	surface water	Bicarbonate	158	mg/L	1	3/7/00	3
05	02	surface water	Bicarbonate	156	mg/L	1	11/9/98	11
10	02	surface water	Arsenic	ND	mg/L	0.025	3/7/00	3
02	02	surface water	Arsenic	ND	mg/L	0.01	3/3/98	3
06	02	surface water	Arsenic	NS	mg/L	0.025	2/10/99	2
04	02	surface water	Arsenic	ND	mg/L	0.025	8/4/98	8
01	02	surface water	Arsenic	ND	mg/L	0.0250	12/9/97	12
09	02	surface water	Arsenic	ND	mg/L	0.005	12/6/99	12
08	02	surface water	Arsenic	ND	mg/L	0.025	9/28/99	9
07	02	surface water	Arsenic	ND	mg/L	0.025	5/11/99	5
03	02	surface water	Arsenic	ND	mg/L	0.025	5/26/98	5
05	02	surface water	Arsenic	ND	mg/L	0.025	11/9/98	11
11	02	surface water	Arsenic	ND	mg/L	0.025	6/1/00	6
09	02	surface water	Aluminum	0.2	mg/L	0.1	12/6/99	12
01	02	surface water	Alkalinity (CaCO3)	154	mg/L	1.00	12/9/97	12
04	02	surface water	Alkalinity (CaCO3)	177	mg/L	1	8/4/98	8
03	02	surface water	Alkalinity (CaCO3)	159	mg/L	1	5/26/98	5
02	02	surface water	Alkalinity (CaCO3)	135	mg/L	1	3/3/98	3
11	02	surface water	Alkalinity (CaCO3)	166	mg/L	1	6/1/00	6
06	02	surface water	Alkalinity (CaCO3)	172	mg/L	1	2/10/99	2
05	02	surface water	Alkalinity (CaCO3)	158	mg/L	1	11/9/98	11

fIdRound	fIdWell	fIdMatrix	fIdNewName	fIdWell2	fIdUnits	fIdDL	fIdSampleDate	fIdSampleMont
07	02	surface water	Alkalinity (CaCO3)	166	mg/L	1	5/11/99	5
09	02	surface water	Alkalinity (CaCO3)	168	mg/L	2	12/6/99	12
08	02	surface water	Alkalinity (CaCO3)	160	mg/L	1	9/28/99	9
10	02	surface water	Alkalinity (CaCO3)	158	mg/L	1	3/7/00	3

Table 1
Toxic Substances Monitoring Program
Preliminary Summary of 1998 Data: Trace Elements in Fish and Crayfish (ppm, wet weight)

Station Number	Station Name	Species Code	Tissue	Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
15.20.16	Cold Stream Cr/u/s Donner Cr	BN	F	10/15/98	0.058	<0.0003	0.127	0.4894	<0.0003	0.071	0.0020	0.136	<0.0013	4.21
15.20.16	Cold Stream Cr/u/s Donner Cr	BN	L	10/15/98	0.023	0.0473	0.119	10.4200	<0.0003	NA	<0.0010	0.577	0.2390	14.90
17.20.31	Susan R/u/s Susanville	RBT	F	10/16/98	<0.017	<0.0003	0.114	0.3884	<0.0003	0.030	0.0040	0.101	<0.0013	4.90
17.20.31	Susan R/u/s Susanville	RBT	L	10/16/98	0.049	0.0303	0.111	73.5900	<0.0003	NA	0.0100	0.907	0.3805	19.40
15.40.08	Palo Verde Outfall Drain	LMB	F	11/12/98	0.068	<0.0003	0.058	0.2224	<0.0003	NA	0.0020	0.614	<0.0013	4.66
13.10.01	Alamo R/Calipatria	CCF	F	11/11/98	0.118	<0.0003	0.110	0.2526	<0.0003	NA	<0.0010	0.786	<0.0013	4.52
13.10.02	New R/Westmorland	CCF	F	11/11/98	0.058	<0.0003	0.067	0.3041	<0.0003	0.044	0.0050	0.826	<0.0013	5.55
13.10.02	New R/Westmorland	CCF	L	11/11/98	0.129	0.0091	0.090	1.5630	0.0514	NA	0.0020	2.200	0.0023	16.70
18.00.90	Salton Sea/South	TL	F	11/11/98	1.310	<0.0003	0.084	0.2784	<0.0003	<0.005	0.0070	2.200	<0.0013	4.72
18.00.90	Salton Sea/South	TL	L	11/11/98	0.700	0.0118	0.158	0.9736	0.0148	NA	0.1480	4.150	0.0046	17.30
18.00.92	Salton Sea/North	TL	F	11/10/98	1.900	<0.0003	0.060	0.1789	<0.0003	<0.005	0.0060	2.730	<0.0013	3.75
18.00.92	Salton Sea/North	TL	L	11/10/98	0.854	0.0333	0.106	1.5690	0.0197	NA	0.2370	6.270	0.0042	19.90
11.11.05	Delhi Channel	MUL	W	06/09/98	0.882	0.0224	0.284	1.5780	0.2108	0.006	0.0870	0.949	0.0109	14.50
11.11.07	San Diego Cr/Michelson Dr	PRS	W	06/09/98	0.344	0.0915	0.200	0.9073	0.0410	0.005	0.0400	1.050	0.0052	24.50
11.11.09	San Diego Cr/Barranca Pkwy	PRS	W	06/09/98	0.200	0.1514	0.094	0.6872	0.0138	0.030	0.0050	0.971	0.0034	41.10
11.11.96	Peters Canyon Channel	PRS	W	06/09/98	0.116	0.0891	0.105	0.8800	0.0218	0.042	0.0190	1.130	0.0018	36.70
11.11.99	Upper Newport Bay/Newport Dunes	BSS	F	06/10/98	8.620	0.0028	0.171	0.3616	<0.0003	0.541	0.0040	0.301	<0.0013	3.65
11.11.99	Upper Newport Bay/Newport Dunes	BSS	L	06/10/98	7.730	0.2400	0.640	0.9350	<0.0001	0.131	<0.0002	1.950	0.0080	4.13
12.21.01	DeLuz Creek	BLB	F	07/07/98	0.023	0.0006	0.081	0.3432	<0.0003	0.047	0.0030	0.279	<0.0013	6.74
12.21.01	DeLuz Creek	BLB	F	07/07/98	<0.017	0.0007	0.065	0.3849	<0.0003	0.040	0.0040	0.316	<0.0013	6.00
12.21.01	DeLuz Creek	BLB	L	07/07/98	0.076	0.0220	0.065	4.5530	0.0023	NA	0.0040	0.853	0.0062	15.00
12.21.01	DeLuz Creek	BLB	L	07/07/98	0.079	0.0200	0.054	4.7690	0.0027	NA	0.0030	0.778	0.0082	14.20
12.22.02	Sandia Canyon Cr	BLB	F	07/07/98	0.028	0.0059	0.061	0.4965	0.0322	0.043	0.0050	0.469	<0.0013	7.28
12.22.02	Sandia Canyon Cr	BLB	L	07/07/98	0.105	0.0157	0.060	3.6490	0.0004	NA	0.0020	1.450	0.0061	14.70
15.23.01	Felicita Cr/East Fork	GAM	W	07/08/98	0.037	0.0051	0.100	0.8854	0.0016	0.034	0.0350	0.325	0.0065	24.90
19.11.09	San Diego R/d/s Alvarado Cr	GSH	W	08/08/98	0.121	0.0131	0.087	1.0460	0.0400	0.014	<0.0010	0.528	0.0026	34.30
19.12.00	F-G St Salt Marsh/Chula Vista	MOL	W	07/08/98	0.338	0.0302	0.894	4.3880	0.4719	<0.005	0.2320	0.429	0.0552	-0.003

= Liver. F = Filet. W = Whole Body. < = Below Indicated Detection Limit.
 Species codes are listed in Table 3.

Table 1
Toxic Substances Monitoring Program
Preliminary Summary of 1998 Data: Trace Elements in Fish and Crayfish (ppm, wet weight)

Station Number	Station Name	Species Code	Tissue	Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury (++)	Nickel	Selenium	Silver	Zinc
02.21.01	DeLuz Creek	BLB	F	07/07/98	0.023	0.0006	0.081	0.3432	<0.0003		0.0030	0.279	<0.0013	6.74
02.21.01	DeLuz Creek	BLB	F	07/07/98	<0.017	0.0007	0.065	0.3849	<0.0003		0.0040	0.316	<0.0013	6.00
02.21.01	DeLuz Creek	BLB	L	07/07/98	0.076	0.0220	0.065	4.5530	0.0023		0.0040	0.853	0.0062	15.00
02.21.01	DeLuz Creek	BLB	L	07/07/98	0.079	0.0200	0.054	4.7690	0.0027		0.0030	0.778	0.0082	14.20
02.22.02	Sandia Canyon Cr	BLB	F	07/07/98	0.028	0.0059	0.061	0.4965	0.0322		0.0050	0.469	<0.0013	7.28
02.22.02	Sandia Canyon Cr	BLB	L	07/07/98	0.105	0.0157	0.060	3.6490	0.0004		0.0020	1.450	0.0061	14.70
05.23.01	Felicita Cr/East Fork	GAM	W	07/08/98	0.037	0.0051	0.100	0.8854	0.0016		0.0350	0.325	0.0065	24.90
09.11.09	San Diego R/d/s Alvarado Cr	GSH	W	08/08/98	0.121	0.0131	0.087	1.0460	0.0400		<0.0010	0.528	0.0026	34.30
09.12.00	F-G St Salt Marsh/Chula Vista	MOL	W	07/08/98	0.338	0.0302	0.894	4.3880	0.4719		0.2320	0.429	0.0552	-0.003

= Liver. F = Filet. W = Whole Body. < = Below Indicated Detection Limit.

Species codes are listed in Table 3.

+ = Mercury data will be available by the end of June.

he EDL 85 and EDL 95 for trace elements in Whole fish calculated using 1978-87 data (ppm, wet weight)

0.40	0.79	Arsenic
0.10	0.17	Cadmium
0.17	0.25	Chromium
3.39	3.96	Copper
0.39	0.53	Lead
0.06	0.07	Mercury
0.17	0.42	Nickel
1.60	3.27	Selenium
<0.02	0.04	Silver
38.90	40.60	Zinc

TABLE 2
Toxic Substances Monitoring Program
Preliminary Summary of 1998 Data: Organic Chemicals in Fish and Crayfish (ppb, wet weight)

Station Number	Station Name				Species Code	Tissue Type	Sample Date	Aldrin	alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Nona-chlor	trans-Nona-chlor	Oxy-chlor-dane	Total Chlor-dane	Chlor-pyrifos	Dacthal
02.21.01	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	<0.3	<5.0	<3.0	<2.0	<4.0	<25.0	<10.0	<10.0	ND	<20.0	ND
02.21.01	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	<0.3	<5.0	<3.0	<2.0	<4.0	<25.0	<10.0	<10.0	ND	<20.0	ND
02.22.02	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	<0.3	<5.0	<3.0	<2.0	<4.0	<25.0	<10.0	<10.0	ND	<20.0	ND
05.23.01	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	<0.3	<5.0	<3.0	<2.0	<4.0	<25.0	<10.0	<10.0	ND	<20.0	18.6
09.11.09	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	0.3	<5.0	16.9	<2.0	<4.0	<25.0	41.2	<10.0	41.2	<20.0	63.2
09.12.00	<1.0	<2.0	<2.0	<1.0	ND	<2.0	<1.0	0.3	<5.0	<3.0	4.7	<4.0	195.0	204.0	53.7	452.7	<20.0	5.0

NA Means that the sample was not analyzed for the chemical.

ND Means that the chemical was not detected.

< Means that the chemical was not detected above the indicated limit of detection.

F = Filet.

W = Whole Body.

Species codes are listed in Table 3.

TABLE 3
Toxic Substances Monitoring Program

1998 Freshwater Fish Code List*

Species Code	Common Name	Species Name	Family Name
AC	Arroyo Chub	<i>Gila orcutti</i>	Cyprinidae
BLB	Black Bullhead	<i>Ameiurus melas</i>	Ictaluridae
BN	Brown Trout	<i>Salmo trutta</i>	Salmonidae
CCF	Channel Catfish	<i>Ictalurus punctatus</i>	Ictaluridae
CP	Carp	<i>Cyprinus carpio</i>	Cyprinidae
GAM	Mosquitofish	<i>Gambusia affinis</i>	Poeciliidae
GSF	Green Sunfish	<i>Lepomis cyanellus</i>	Centrarchidae
GSH	Golden Shiner	<i>Notemigonus crysoleucas</i>	Cyprinidae
HCH	Hitch	<i>Lavinia exilicauda</i>	Cyprinidae
LMB	Largemouth Bass	<i>Micropterus salmoides</i>	Centrarchidae
MOL	Sailfin Molly	<i>Poecilia latipinna</i>	Poeciliidae
PRS	Red Shiner	<i>Cyprinella lutrensis</i>	Cyprinidae
RBT	Rainbow Trout	<i>Oncorhynchus mykiss</i>	Salmonidae
RSF	Redear Sunfish	<i>Lepomis microlophus</i>	Centrarchidae
SBF	Sacramento Blackfish	<i>Orthodon microlepidotus</i>	Cyprinidae
SKR	Sucker	<i>Catostomus sp.</i>	Catostomidae
STB	Threespine Stickleback	<i>Gasterosteus aculeatus</i>	Gasterosteidae
TL	Tilapia	<i>Tilapia sp.</i>	Cichlidae
WCF	White Catfish	<i>Ameiurus catus</i>	Ictaluridae

1998 Marine Fish Code List*

Species Code	Common Name	Species Name	Family Name
BSS	Brown Smoothhound Shark	<i>Mustelus henlei</i>	Carcharhinidae
MUL	Striped Mullet	<i>Mugil cephalus</i>	Mugilidae

1998 Non-Fish Code List

Species Code	Common Name	Species Name	Family Name
PACI	Crayfish	<i>Pacifastacus leniusculus</i>	Astacidae

* Common and scientific fish names were obtained from Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and Scientific Names of Fishes from the United States and Canada. American Fisheries Society Special Publication 20, Bethesda, Maryland.

Sampling Date	Station Name	Station ID	Hydrologic Subarea	Detection Limit	Station Location	Ammonia-N	Nitrate as N	Nitrite-N	Total Kjeldahl Nitrogen	Orthophosphate-P	Total Phosphate as P (revised)	Total Phosphate as PO ₄	Total Dissolved Solids	Turbidity NTU	Calcium	Sodium	Magnesium	Potassium	Chloride	Sulfate	Total Hardness	Ecumhos	Antimony	Arsenic
						0.14	0.20	0.01	0.1	0.02	5.0		10.0		0.10	0.25	0.15	0.56	1.0	40.0	1.0		0.005	0.0
5/20/98	LAC-CB-T1	DFG-978-300	—	—	Loma Alta Creek at College Blvd	0.23	0.61	0.04	0.70	0.12	0.40		2800	0.98										
5/20/98	BVC-SVW-T3	DFG-978-301	—	—	Buena Vista Creek at South Vista Way	<.14	2.50	0.02	0.42	0.22	0.22		1378	0.79										
5/20/98	SLRR-FR-T1	DFG-978-302	✓	—	San Luis Rey River at Foussat Road	<.14	2.40	0.01	0.39	0.58	0.24		850	5.10										
5/20/98	LAC-ECR-A	DFG-978-303	✓	—	Loma Alta Creek at El Camino Real	<.14	0.27	0.00	0.36	0.44	0.14		2459	0.58										
6/2/98	SR-79	DFG-978-304	✓	—	Sweetwater River at Hwy 79 near Interstate 8	<.14	0.33	0.00	0.29	0.13	0.13		224	1.90										
6/2/98	SR-94	DFG-978-305	✓	—	Sweetwater River upstream of Hwy 94 (Campo Road)	<.14	0.36	0.01	0.16	0.07	0.06		397	2.80										
6/2/98	SR-WS	DFG-978-306	✓	—	Sweetwater River downstream of Willow Street	<.14	0.35	0.01	0.40	0.05	0.20		825	0.76										
6/2/98	SDR-MD	DFG-978-307	7.11	✓	San Diego River up stream of Mission Dam	0.19	0.35	0.02	0.38	0.22	0.09		1038	3.70										
6/2/98	SDR-MT	DFG-978-308	7.11	✓	San Diego River at Mission Trails Regional Park	<.14	0.28	0.01	0.49	0.14	0.05		1046	0.77										
6/2/98	SDR-FVR	DFG-978-309	7.11	✓	San Diego River at Fashion Valley Road	<.14	0.23	0.00	0.42	0.23	0.06		1217	5.00										
6/3/98	LPC-BMR	DFG-978-310	—	—	Los Penasquitos Creek upstream of Black Mountain Road	<.14	0.34	0.01	0.76	0.30	0.55		1678	0.67										
6/3/98	LPC-CCR	DFG-978-311	✓	—	Los Penasquitos Creek at Cobblestone Creek Road.	<.14	1.10	0.03	1.90	0.17	0.55		1633	3.80										
6/3/98	RC-HP	DFG-978-312	6.20	—	Rattlesnake Creek at Hilleary Park, off Community Road	<.14	1.50	0.02	1.50	0.46	0.67		1412	0.54										
6/3/98	EC-HRB	DFG-978-313	4.60	✓	Escondido Creek below Harmony Grove Bridge.	<.14	7.20	0.07	0.46	0.46	0.37		1196	0.99										
6/3/98	EC-EF	DFG-978-314	4.60	✓	Escondido Creek at intersection Elfin Forest and Harmony Grove (end of Elfin Forest Resort).	<.14	6.90	0.02	0.55	0.77	0.29		1145	0.38									ND	3.8
6/3/98	EC-LCA	DFG-978-315	—	—	Encinitas Creek at Green Valley Road	<.14	0.34	<.01	0.54	0.34	0.32		2082	3.70										
6/3/98	SMC-RSFR	DFG-978-316	4.51	—	San Marcos Creek at Rancho Santa Fe Road	<.14	0.00	0.01	0.60	0.42	0.52		780	0.99										
6/3/98	SMC-M	DFG-978-317	4.51	✓	San Marcos Creek at McMahr	<.14	6.20	0.04	0.62	0.49	0.56		1346	13.80										
6/9/98	MC-WB	DFG-978-318	✓	—	Murrieta Creek at Calle Del Oso Rd	<.14	1.29	<.01	0.31	0.21	0.28		709	0.38									ND	3.0
6/9/98	MC-GS	DFG-978-319	✓	—	Murrieta Ck behind cement factory	<.14	0.32	0.01	0.44	0.09	0.06		753	2.31									ND	3.1
6/9/98	TC-I15	DFG-978-320	✓	—	Temecula Ck east of confluence, west of I-15	<.14	1.40	0.01	0.44	0.30	0.17		840	0.67										

Linda Paray
Sheet 1

0.25 45 1 0.1 TD 20 0.5

Sampling Date	Station Name	Station ID	Hydrologic Subarea	Station Location	Ammonia-N	Nitrate as N	Nitrite-N	Total Kjeldahl Nitrogen	Orthophosphate-P	Total Phosphate as P (revised)	Total Phosphate as PO ₄	Total Dissolved Solids	Turbidity NTU	Calcium	Sodium	Magnesium	Potassium	Chloride	Sulfate	Total Hardness	EC umhos	Antimony	Arsenic
			Detection Limit		0.14	0.20	0.01	0.1	0.02	5.0		10.0		0.10	0.25	0.15	0.56	1.0	40.0	1.0		0.005	0.0
6/9/98	RC-WGR	DFG-978-321	✓	Rainbow Creek at Willow Glen Rd	<.14	11.47	0.02	0.44	0.95	0.77		810	0.30										
6/9/98	SMR-WGR	DFG-978-322	—	Santa Margarita at Willow Glen Rd (Stage Coach Ln).	<.14	3.76	0.02	0.47	0.11	0.62		913	0.46										
6/9/98	SMR-SCD	DFG-978-323	✓	SMR at DeLuz/ Pico Rd near Sandia Ck	<.14	4.69	0.01	0.34	0.18	0.35		923	0.50										
6/9/98	SC-SCR	DFG-978-324	—	Sandia Ck at Sandia Ck Rd, 0.5 to 1 mile above confluence	<.14	5.83	0.01	0.17	0.24	0.30		817	1.80									ND	7.8
6/9/98	SMR-CP	DFG-978-325	✓	Santa Margarita River below diversion weir on Camp Pendleton	<.14	2.71	0.01	0.34	0.23	0.41		667	3.77									ND	5.9
6/9/98	SMR-SMB	DFG-978-326	✓	SMR at Stuart Mesa Rd bridge on Camp Pendleton	<.14	1.63	0.01	0.28	0.23	0.35		713	3.60									ND	2.3
6/10/98	BVR-ED	DFG-978-327	✓	San Marcos Creek at Rancheros Drive	<.14	14.70	0.05	0.53	0.14	0.95		1372	0.49										
6/10/98	AHC-SA	DFG-978-328	—	Agua Hedionda Ck at Sycamore Ave	0.17	15.30	0.08	0.58	1.00	0.90		1144	1.10										
6/10/98	SMC-SP	DFG-978-329	✓	Buena Vista Ck at Wildwood Park	0.23	3.40	0.09	0.62	0.12	0.75		1360	1.70										
6/10/98	AC-CCR	DFG-978-330	—	Aliso Ck along Country Club Rd	3.30	3.10	1.00	0.81	1.10	0.93		1712	4.10									ND	1.2
6/10/98	AC-PPD	DFG-978-331	✓	Aliso Ck at Pacific Park Dr/ Oso Pkwy	0.18	1.00	0.03	0.56	0.15	0.81		1961	1.10										
6/10/98	AHC-ECR	DFG-978-332	✓	Agua Hedionda Ck at El Camino Real	<.14	5.80	0.02	0.53	0.44	0.61		1716	0.55										
6/11/98	SLRR-395	DFG-978-333	✓	San Luis Rey River at old Hwy 395 (Couser Canyon Rd)	<.14	4.20	0.03	0.42	0.75	0.99		970	3.73										
6/29/98		LLP-978-405-BUV	✓	Buena Vista Creek	<.14	1.20	0.02	0.64	0.83		7.1	1133	1.3	120	254	80.7	3.6	454	281	570	1965	ND	ND
6/29/98		LLP-978-405-AGH	✓	Agua Hedionda Creek	<.14	4.50	0.03	0.76	0.25		4.2	1624	0.6	168	255	97.9	3.3	465	363	745	2300	ND	ND
6/29/98		LLP-978-405-ESC	✓	Escondido Creek	<.14	3.60	0.01	0.76	0.25		4.6	1382	4.4	109	251	87.5	3.4	322	342	570	1969	ND	ND

These are

Sampling Date	Station Name	Station ID	Hydrologic Subarea	Detection Limit	Station Location	Beryllium	Cadmium	Chromium, Total	Chromium, Dissolved	Copper	Lead, Total	Lead, Dissolved	Mercury	Nickel	Selenium	Silver	Thallium	Zinc, Total	Zinc, Dissolved	Ceriodaphnia-survival	Ceriodaphnia-reproduction	Pimephales-survival	Pimephales-growth
6/9/98	RC-WGR	DFG-978-321			Rainbow Creek at Willow Glen Rd																		
6/9/98	SMR-WGR	DFG-978-322			Santa Margarita at Willow Glen Rd (Stage Coach Ln).																		
6/9/98	SMR-SCD	DFG-978-323			SMR at DeLuz/ Pico Rd near Sandia Ck																		
6/9/98	SC-SCR	DFG-978-324			Sandia Ck at Sandia Ck Rd, 0.5 to 1 mile above confluence	ND	ND	17.0		20.0	1.7		ND	7.7	ND	ND	ND	26.2					
6/9/98	SMR-CP	DFG-978-325			Santa Margarita River below diversion weir on Camp Pendleton	ND	ND	5.7		4.0	6.7		ND	2.8	ND	ND	1.5	24.3					
6/9/98	SMR-SMB	DFG-978-326			SMR at Stuart Mesa Rd bridge on Camp Pendleton	ND	0.44	14.7		9.1	12.3		ND	5.5	ND	ND	ND	81.1					
6/10/98	BVR-ED	DFG-978-327			San Marcos Creek at Rancheros Drive																		
6/10/98	AHC-SA	DFG-978-328			Agua Hedionda Ck at Sycamore Ave																		
6/10/98	SMC-SP	DFG-978-329			Buena Vista Ck at Wildwood Park																		
6/10/98	AC-CCR	DFG-978-330			Aliso Ck along Country Club Rd	ND	ND	7.6		2.2	ND		ND	3.4	ND	ND	1.2	16.0					
6/10/98	AC-PPD	DFG-978-331			Aliso Ck at Pacific Park Dr/ Oso Pkwy																		
6/10/98	AHC-ECR	DFG-978-332			Agua Hedionda Ck at El Camino Real																		
6/11/98	SLRR-395	DFG-978-333			San Luis Rey River at old Hwy 395 (Couser Canyon Rd)	are in units of milligrams per liter.																	
6/29/98		LLP-978-405-BUV			Buena Vista Creek	ND	ND	0.0	0.01	ND	ND	ND	ND	ND	ND	ND	ND	0.04	0.02	No Difference			
6/29/98		LLP-978-405-AGH			Agua Hedionda Creek	ND	ND	0.0	0.01	ND	ND	ND	ND	ND	ND	ND	ND	0.03	0.02	No Difference			
6/29/98		LLP-978-405-ESC			Escondido Creek	ND	ND	0.0	0.01	ND	ND	0.002	ND	ND	ND	ND	ND	0.06	0.04	No Difference			

From: Linda Pardy
To: Tracy_Weddle@nps.gov
Date: 3/5/01 2:45PM
Subject: Re: Cabrillo National Monument Water Quality Data

Tracy, FYI. In reply to your email:

The source of 1998 water quality data was the San Diego Regional Water Quality Control Board (Regional Board). The Regional Board collected water samples at selected sites throughout the Region to scan sites for elevated levels of the sampled parameters. The June 1998 sampling was limited to those samples/constituents shown. The samples were delivered to the lab by the Regional Board. The contract lab which did the analyses was Truesdail Laboratories, Inc is located at 14201 Franklin Ave, Tustin, CA 92780-7008. The project manager at that time for the testing was Divina B. Pascual. Their phone number was 714 730-6239. -Linda

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Linda Pardy, Environmental Specialist
California Regional Water Quality Control Board
San Diego Region
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Primary Office Phone Number (858) 467-2952
>< >< >< >< >< >< >>>: >< >>>:

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>

>>> <Tracy_Weddle@nps.gov> 03/05/01 10:18AM >>>
Ms. Pardy,

I am currently establishing a baseline water quality report for Cabrillo National Monument for the National Park Service. I am taking over the work of Brett Atkinson, whom you spoke to previously. Brett prepared the data which you sent him for these reports, but there is one bit of information missing before these reports can be completed and the data uploaded to the EPA database STORET. A paragraph description is needed, describing the source of data and purpose for data collection and monitoring. I have looked on your agency's website to try and determine this, but there are so many projects that I could not determine where the data you sent came from. Could you please describe to me what the monitoring was for, the extent of monitoring, and any other information you feel is significant? I am attaching a copy of the data you sent in case you are unsure about what data I'm referring to. Thank you for your help!

Sincerely,

Tracy Weddle
Water Quality Data Analyst
National Park Service
Water Resources Division
1201 Oakridge Drive, Suite 250
Fort Collins, CO 80525

Sandita Creek

DATA SUMMARY

Disc 1 of 2 (submitted by Camp Pendleton)

See Santa Mary Frle for Data

LAW-Crandall

11043000	Daily Mean Discharge Data, "Murrieta C A Temecula, CA", 1930 to 1997, discharge as ft ³ / s
11044250	Daily Mean Discharge Data, Rainbow Cr near Fallbrook, CA, 1989 – 1998
11044800	Daily Mean Discharge Data, De Luz Cr near De Luz, CA, 1992 – 1997
11045300	Daily Mean Discharge Data, Fallbrook Cr, near Fallbrook, CA, 1993 – 1998
11046360	Daily Mean Discharge Data, Cristianitos C Ab San Mateo C Nr San Clemente, CA, 1993 – 1997
CADMaps	Southern California Road Map, San Mateo and Santa Margarita Watersheds, Monitoring Locations (San Mateo), Monitoring Locations (Santa Margarita)
Cover	2 pg cover = Final "Water Quality Studies and Proposed Watershed Monitoring Program for Portions of San Mateo and Santa Margarita River Watersheds (Vol. 2 of 2)
Cover2	2 pg cover = Final "Water Quality Studies and Proposed Watershed Monitoring Program for Portions of San Mateo and Santa Margarita River Watersheds (Vol. 1 of 2)
precip	trouble opening document, but appears to be rainfall data for 1942 – 1999 SC Dam, Oceanside, Escondido, Escondido 2
precip1	Graph with rainfall data from 1942 – 1999 SC Dam, Oceanside, Escondido, Escondido 2
precip10	San Clemente Dam 1942 – 1997 data = ?
precip11	Sam Clemente Dam Rainfall data 1942 – 1997
precip12	San Clemente Dam Precipitation Record 1940 – 1998
precip13	Oceanside & Oceanside Harbor Station Precipitation Record 1940 - 1998
precip14	Oceanside 1942 – 1997 data = ?
precip15	Oceanside Harbor Rainfall data 1943 – 1997
precip2	Combined Precipitation Record 1940 – 1998, location=?
precip3	Escondido, CA 1979 – 1997 data = ?
precip4	Escondido 2 Rainfall data 1979 – 1997
precip5	Escondido 2 Precipitation Record 1979 – 1997
precip6	Escondido 1931 – 1979 data = ?
precip7	Escondido Rainfall Record 1934 – 1979
precip8	Escondido Precipitation Record, 1940 – 1979
precip9	San Clem 1931 – 1979 data = ?
Report	Final Report of Water Quality Studies and Proposed Watershed Monitoring Program for Portions of San Mateo and Santa Margarita River Watershed Marine Corps Base, Camp Pendleton, California. Contract No. N68711-95-D-7573, D.O. 0021
table10	San Mateo Watershed 1998-1999 data on alkalinity, arsenic, bicarbonate, BOD, boron, calcium, carbonate, chloride, conductivity, copper, cyanide, fecal coliform, fluoride, hardness, hydroxide, iron, lead, magnesium, manganese, mercury, nitrate, nitrogen, oil & grease, pH, phosphorus, potassium, sodium, sulfate, surfactants, total coliform, TDS, TOC and zinc.

table11 Santa Margarita Watershed 1997-1999 data on alkalinity, arsenic, bicarbonate, BOD, boron, calcium, carbonate, chloride, conductivity, copper, cyanide, fecal coliform, fluoride, hardness, hydroxide, iron, lead, magnesium, manganese, mercury, nitrate, nitrogen, oil & grease, pH, phosphorus, potassium, sodium, sulfate, surfactants, total coliform, TDS, TOC and zinc.

Table8PDF Water Quality Evaluation Summary, San Mateo Watershed

WQ Microsoft Access Database: Many reports and tables (try reports on pollutant loading and surface waters)

SWR West Study

These GIS files require ArcView software before they can be opened. Some files also require the spatial analyst and 3-D analyst extensions to be loaded. Please see "Read me" file on disc. Some topo maps are .tif files.

SMRWQM-Group

SMR Figure3_41	Figure 3-4 = Proposed Water Quality Sampling Locations
SMRWQM-Draft Plan	Framework Monitoring Plan for the Santa Margarita River Watershed California
SMRWQM-Group Presentation	Powerpoint Presentation: Water Quality Monitoring and Water Management

Disc 2 of 2

LAW-Crandall

chart	Alkalinity Chart Fallbrook Cr near Fallbrook, CA
chart1	De Luz Cr, Fallbrook Cr, Murrieta Cr, Rainbow Cr, San Mateo Cr (x2), Sandia Cr, Santa Margarita River (x3) for alkalinity (2 types), aluminum, antimony and arsenic
chart10	Cristianitos Cr, De Luz Cr, Fallbrook Cr, Murrieta Cr, Rainbow Cr, San Mateo Cr, Sandia Cr, Santa Margarita Rvr for sodium, sulfate, surfactants, thallium, tin,
chart11	Santa Margarita Rvr, De Luz Cr, Cristianitos Cr, Murrieta Cr, Rainbow Cr, Sandia Cr, San Mateo Cr, Fallbrook Cr for TOC, vanadium and zinc
chart12	same creeks for fluoride
chart13	same creeks for oil & grease, pH, phosphate, phosphorus
chart14	same creeks for nitrate, nitrite
chart15	same creeks for historical data
chart16	same creeks for phosphate, potassium, selenium, silica, silicon
chart17	same creeks for TDS, TOC, vanadium, zinc
chart2	same creeks for arsenic, barium, beryllium, bicarbonate, BOD, boron
chart3	could not be opened
chart4	opens as gibberish
chart5	opens as gibberish
chart6	same creeks for fluoride, hardness, hydroxide, iron, lead
chart7	same creeks for lead, lithium, magnesium, manganese, mercury
chart8	could not open
chart9	same creeks for phosphorus, potassium, selenium, silica, silicon, silver
Piper Diagrams	

diagrams for 1997 – 1998 for magnesium, sodium + potassium, carbonate + bicarbonate, sulfate, chloride, calcium, sulfate + chloride, calcium + magnesium

SMR West Study

Final West Project

Appendix A	literature review
Appendix B	Plot of computed hydrograph with observed hydrograph
Appendix C	Plot of computed lake storage with observed storage
Appendix D	Plot of precipitation during and preceding Jan 1995 event
Appendix E	Cross section locations and flood plain delineations
Appendix F	Water surface profile plots
Appendix G	Water surface profile tables
Appendix H	Cross section plots
Appendix J	Plot of sub basin frequency flows
Appendix I	Plot of sediment frequency yield by LA Corps method
SMR Final	Final Report Santa Margarita River Hydrology, Hydraulics and Sedimentation Study

West Project Files

All supporting files and documents are included on this disc as word, excel and other file formats that are not .pdf.