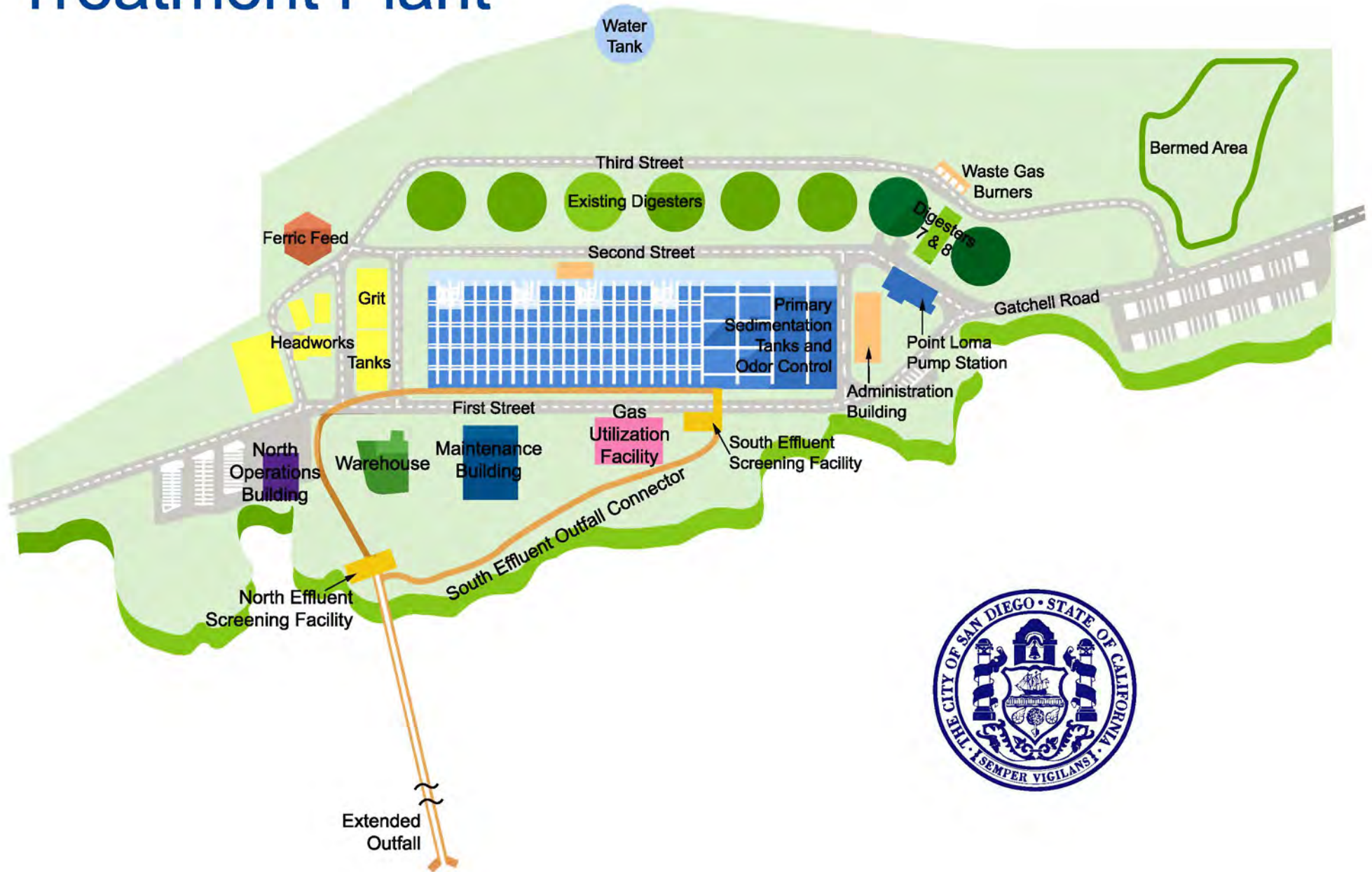


## II. Influent and Effluent Data Summary

The results of all analyses performed on the WWTP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated. Graphs of monthly averages are presented.

- A. Influent And Effluent Data Summaries
- B. Influent And Effluent Graphs
- C. Daily Values Of Selected Parameters
- D. Toxicity Bioassays
- E. 6-Year Tables.

# Point Loma Wastewater Treatment Plant



**Mass Emissions of Effluent Using 2003 Monthly Averages**

DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0107409/RWQCB Order No. R-2002-0025 effective on September 13, 2002 with limits on pollutant discharges.				
Constituent/Property	Benchmarks (mt/yr)	2003 Mass Emissions (mt/yr) <sup>[1]</sup>	2003 Concentration	Units
Flow (MGD)			169.8	MGD
Total Suspended Solids	15.000 <sup>[2]</sup>	9,847	42	mg/L
BOD	B	24,618	105	mg/L
Arsenic	0.88	0.30	1.28	ug/L
Cadmium	1.4	0.05	0.2	ug/L
Chromium	14.2	0.00	0.00	ug/L
Copper	26	19	79	ug/L
Lead	14.2	0.00	0.00	ug/L
Mercury	0.19	0.01	0.03	ug/L
Nickel	11.3	0.00	0.00	ug/L
Selenium	0.44	0.25	1.08	ug/L
Silver	2.8	0.00	0.00	ug/L
Zinc	18.3	5.2	22	ug/L
Cyanide	1.57	0.54	0.0023	mg/L
Residual Chlorine	--			
Ammonia	8018	6,495	27.7	mg/L
Non-Chor. Phenols	2.57	2.46	10.5	ug/L
Chlorinated Phenols	1.73	0.00	0	ug/L
Endosulfan	0.006	0.00	0	ng/L
Endrin	0.008	0.00	0	ng/L
hexachlorocyclohexanes	0.025	0	10	ng/L
Acrolein	17.6	0.00	0	ug/L
Antimony	56.6	1.4	6	ug/L
Bis(2-chloroethoxy) methane	1.5	0.00	0	ug/L
Bis(2-chloroisopropyl) ether	1.61	0.00	0	ug/L
Chlorobenzene	1.7	0.00	0	ug/L
Chromium (III)	--	--		
di-n-butyl phthalate	1.33	0.00	0	ug/L
dichlorobenzenes	2.8	0.2	0.8	ug/L
1,1-dichloroethylene	0.79	0.00	0	ug/L
Diethyl phthalate	6.23	0.00	0	ug/L
Dimethyl phthalate	1.59	0.00	0	ug/L
4,6-dinitro-2-methylphenol	6.8	0.00	0	ug/L
2,4-dinitrophenol	11.9	0.00	0	ug/L
Ethylbenzene	2.04	0.00	0	ug/L
Fluoranthene	0.62	0.00	0	ug/L
Hexachlorocyclopentadiene	B	0.00	0	ug/L
Nitrobenzene	2.07	0.00	0	ug/L
Thallium	36.8	0.00	0	ug/L
Toluene	3.31	0.52	2.2	ug/L
1,1,2,2-tetrachloroethane	1.95	0.00	0	ug/L
Tributyltin	0.001	0.00	0	ug/L
1,1,1-trichloroethane	2.51	0.00	0	ug/L
1,1,2-trichloroethane	1.42	0.00	0	ug/L
Acrylonitrile	5.95	0.00	0	ug/L
Aldrin	0.006	0.00	0	ng/L
Benzene	1.25	0.00	0	ug/L
Benzidine	12.5	0.00	0	ug/L
Beryllium	1.42	0.00	0	ug/L

DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0107409/RWQCB Order No. R-2002-0025 effective on September 13, 2002 with limits on pollutant discharges.

Constituent/Property	Benchmarks (mt/yr)	2003 Mass Emissions (mt/yr) <sup>[1]</sup>	2003 Concentration	Units
Bis(2-chloroethyl)ether	1.61	0.00	0	ug/L
Bis(2-ethylhexyl)phthalate	2.89	0.23	1.0	ug/L
Carbon Tetrachloride	0.79	0.00	0	ug/L
Chlordane	0.014	0.00	0	ng/L
Chloroform	2.19	1.45	6.2	ug/L
DDT	0.043	0.00	0	ng/L
1,4-dichlorobenzene	1.25	0.19	0.8	ug/L
3,3-dichlorobenzidine	4.67	0.00	0	ug/L
1,2-dichloroethane	0.79	0.00	0	ug/L
Dichloromethane (methylene)	13.7	0.68	2.9	ug/L
1,3-dichloropropene	1.42	0.00	0	ug/L
Dieldrin	0.011	0.00	0	ng/L
2,4-dinitrotoluene	1.61	0.00	0	ug/L
1,2-diphenylhydrazine	1.52	0.00	0	ug/L
Halomethanes	5.86	0.59	2.5	ug/L
Heptachlor	0.001	0.00	0	ng/L
Heptachlor epoxide	0.024	0.00	0	ng/L
Hexachlorobenzene	0.54	0.00	0	ug/L
Hexachlorobutadiene	0.054	0.00	0	ug/L
Hexachloroethane	1.13	0.00	0	ug/L
Isophorone	0.71	0.00	0	ug/L
N-nitrosodimethylamine	0.76	0.00	0	ug/L
N-nitrosodiphenylamine	1.47	0.00	0	ug/L
PAHs	15.45	0.00	0	ug/L
PCBs	0.275	0.00	0	ng/L
TCDD equivalents	--	0.00		pg/L
Tetrachloroethylene	4	0.00	0	ug/L
Toxaphene	0.068	0.00	0	ng/L
Trichloroethylene	1.56	0.05	0.2	ug/L
2,4,6-trichlorophenol	0.96	0.00	0	ug/L
Vinyl Chloride	0.4	0.00	0	ug/L

[1] Metric tons of mass emissions is calculated assuming the density of effluent is 1. The mean constituent value and mean daily flow value over the year is used to compute the mass emissions, assuming constant concentration over 365 days. Conversion factor for short tons to metric tons updated this year from 0.9078 (Hoke, Inc. 11/73) to 0.0972 (NIST Special Publication 811, 1995 Edition, Guide for the Use of the International System of Units (SI). Difference is less than 0.07%.

[2] Total Suspended Solids (TSS)- The discharger shall achieve a mass emission of TSS of no Greater than 15,000 mt/yr; this requirement shall be effective through December 31, 2005. Effective January 1, 2006, the discharger shall achieve a mass emission of TSS of no greater than 13,599 mt/yr.

A. Influent and Effluent Data Summaries

The results of all analyses performed on the WWTP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated.

POINT LOMA WASTEWATER TREATMENT PLANT

SEWAGE ANNUAL

From 01-JAN-2003 To 31-DEC-2003

**Biochemical Oxygen Demand Concentration (BOD)**  
(24-hour composite)

	Flow	Daily Influent Value (mg/L)	Daily Influent Value (lbs/Day)	Daily Effluent Value (mg/L)	Daily Effluent Value (lbs/Day)	Percent Removal BOD (%)
JANUARY -2003	168.5	280	393481	100	140529	64.3
FEBRUARY -2003	181.4	260	393348	98	148262	62.3
MARCH -2003	178.1	258	383221	100	148535	61.2
APRIL -2003	169.6	267	377662	112	158420	58.1
MAY -2003	168.5	280	393481	117	164419	58.2
JUNE -2003	165.5	274	378194	117	161492	57.3
JULY -2003	167.9	283	396281	115	161033	59.4
AUGUST -2003	167.7	277	387417	107	149652	61.4
SEPTEMBER-2003	167.9	280	392080	101	141429	63.9
OCTOBER -2003	166.0	269	372414	101	139828	62.5
NOVEMBER -2003	168.0	261	365692	95	133106	63.6
DECEMBER -2003	168.4	262	367967	96	134828	63.4
Average	169.8	271	383437	105	148461	61.3

**Total Suspended Solids Concentration (TSS)**  
(24-hour composite)

	Flow	Daily Influent Value (mg/L)	Daily Influent Volatile (mg/L)	Percent of TSS (%)	Daily Influent VSS Value (lbs/Day)	Daily Effluent Value (mg/L)	Daily Effluent Volatile (mg/L)	Percent of TSS (%)	Daily Effluent VSS Value (lbs/Day)
JANUARY -2003	168.5	296	239	80.7	415966	41	30	73.2	57617
FEBRUARY -2003	181.4	289	234	81.0	437221	42	31	73.8	63541
MARCH -2003	178.1	282	232	82.3	418870	40	29	72.5	59414
APRIL -2003	169.6	290	239	82.4	410195	41	29	70.7	57993
MAY -2003	168.5	293	246	84.0	411750	46	33	71.7	64643
JUNE -2003	165.5	290	245	84.5	400278	44	31	70.5	60732
JULY -2003	167.9	292	247	84.6	408884	44	31	70.5	61613
AUGUST -2003	167.7	288	240	83.3	402802	41	29	70.7	57343
SEPTEMBER-2003	167.9	276	232	84.1	386479	40	28	70.0	56011
OCTOBER -2003	166.0	267	223	83.5	369645	41	29	70.7	56762
NOVEMBER -2003	168.0	268	225	84.0	375500	41	29	70.7	57446
DECEMBER -2003	168.4	287	240	83.6	403079	43	31	72.1	60392
Average	169.8	285	237		403389	42	30		59459

Annual Mass Emissions are calculated from monthly averages of flow and BOD (or TSS), whereas monthly report average mass emissions are calculated from average daily mass emissions.

POINT LOMA WASTEWATER TREATMENT PLANT

Annual Systemwide BOD Removals

From 01-JAN-2003 To 31-DEC-2003

Mass Emissions are in pounds per day.

	Pt. Loma Influent Mass Emission	PS64 Influent Mass Emission	Penasquitos Influent Mass Emission	Return Stream Mass Emission	Pt. Loma Effluent Mass Emission	Monthly Systemwide Percent Removal	Pt. Loma Daily Percent Removal
JANUARY	393481	30954	15818	9803	140529	67.4	64.3
FEBRUARY	393348	30087	14956	12323	148262	65.1	62.3
MARCH	383221	34154	14697	27653	148535	63.0	61.2
APRIL	377662	28052	13791	17412	158420	60.5	58.1
MAY	393481	25005	15773	12188	164419	61.2	58.2
JUNE	378194	26478	15823	10722	161492	60.5	57.3
JULY	396281	25828	14992	11658	161033	61.9	59.4
AUGUST	387417	26686	14818	7662	149652	64.2	61.4
SEPTEMBER	392080	26990	14571	8552	141429	66.4	63.9
OCTOBER	372414	27588	12664	9486	139828	65.2	62.5
NOVEMBER	365692	30981	11405	7015	133106	66.7	63.6
DECEMBER	367967	27223	18475	14652	134828	66.0	63.4
Average	383437	28335	14815	12427	148461	64.0	61.3

POINT LOMA WASTEWATER TREATMENT PLANT

Annual Systemwide TSS Removals

From 01-JAN-2003 To 31-DEC-2003

	Pt. Loma Influent Mass Emission	PS64 Influent Mass Emission	Penasquitos Influent Mass Emission	Return Stream Mass Emission	Pt. Loma Effluent Mass Emission	Monthly Systemwide Percent Removal	Pt. Loma Daily Percent Removal
JANUARY	415966	30094	18805	20078	57617	87.0	86.1
FEBRUARY	437221	31022	17921	21905	63541	86.1	85.5
MARCH	418870	39057	19331	51180	59414	85.5	85.8
APRIL	410195	26630	16968	34058	57993	86.0	85.9
MAY	411750	25976	22139	21102	64643	85.1	84.3
JUNE	400278	25628	21444	20242	60732	85.8	84.8
JULY	408884	27113	20501	20192	61613	85.7	84.9
AUGUST	402802	27438	20539	12919	57343	86.7	85.8
SEPTEMBER	386479	29664	20275	18771	56011	86.5	85.5
OCTOBER	369645	27988	15745	19891	56762	85.2	84.6
NOVEMBER	375500	29833	14051	20688	57446	85.3	84.7
DECEMBER	403079	26623	20302	32704	60392	85.8	85.0
Average	403389	28922	19002	24478	59459	85.9	85.2

The mass emission for the Return Stream is calculated using data from four NCWRP sources (plant drain, filter backwash, excess primary effluent, and disinfected final effluent that is not reclaimed) and one MBC source (centrate from the dewatering process) that are diverted to the Return Stream.

POINT LOMA WASTEWATER TREATMENT PLANT

From 01-JAN-2003 To 31-DEC-2003

Influent to Plant  
(PLR)

	pH	Settleable Solids (ml/L)	Biochemical Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Temperature ( C )
JANUARY -2003	7.27	10.40	280	32.5	22.2
FEBRUARY -2003	7.26	9.81	260	33.1	21.7
MARCH -2003	7.37	11.40	258	26.4	22.0
APRIL -2003	7.30	10.50	267	24.1	22.8
MAY -2003	7.30	9.73	280	33.2	23.8
JUNE -2003	7.36	10.90	274	35.6	24.6
JULY -2003	7.26	11.10	283	38.0	26.1
AUGUST -2003	7.25	11.30	277	38.7	27.4
SEPTEMBER-2003	7.23	11.10	280	39.9	27.5
OCTOBER -2003	7.20	11.90	269	37.0	26.8
NOVEMBER -2003	7.20	11.90	261	54.7*	25.0
DECEMBER -2003	7.28	10.70	262	44.7*	23.1
Average	7.27	10.9	271	36.5	24.4

Effluent to Ocean Outfall  
(PLE)

	pH	Settleable Solids (ml/L)	Biochemical Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Temperature ( C )	Floating Particulates (mg/L)	Turbidity (NTU)
JANUARY -2003	7.16	0.1	100	7.9	22.1	0.11	40
FEBRUARY -2003	7.21	0.1	98	9.3	21.8	0.18	38
MARCH -2003	7.27	0.1	100	9.5	21.9	0.12	39
APRIL -2003	7.23	0.1	112	9.2	22.9	0.12	44
MAY -2003	7.23	0.2	117	12.8	24.1	0.10	48
JUNE -2003	7.26	0.2	117	11.1	24.8	0.11	49
JULY -2003	7.16	0.2	115	11.3	26.4	<0.10	50
AUGUST -2003	7.13	0.3	107	11.1	27.5	<0.10	48
SEPTEMBER-2003	7.09	0.3	101	10.5	27.6	0.12	47
OCTOBER -2003	7.10	0.3	101	10.1	26.8	0.16	47
NOVEMBER -2003	7.07	0.1	95	18.0*	25.0	0.11	46
DECEMBER -2003	7.16	0.2	96	16.1*	22.9	0.22	47
Average	7.17	0.2	105	11.4	24.5	0.11	45

\*=For the months of November and December we replaced the Freon extraction Grease & Oil method, SM 5520B, with the EPA approved Hexane extraction method, EPA 1664 (see discussion in the Introduction section).



POINT LOMA WASTEWATER TREATMENT PLANT  
ANNUAL SEWAGE  
Trace Metals

From: 01-JAN-2003 to: 31-DEC-2003

(Limits shown are the 6-Month Median Maximum)

Sampled by: NDL,A4A  
Analyzed by: BOA,G8C,JRF,IEN,LXP,JRV, GS

Analyte:	Antimony	Antimony	Arsenic	Arsenic	Beryllium	Beryllium	Cadmium	Cadmium
MDL Units:	23	23	.4	.4	.39	.39	1	1
Source:	PLR	PLE	PLR	PLE	PLR	PLE	PLR	PLE
=====								
JANUARY -2003	35	<23	1.41	0.90	ND	ND	<1.0	1.3
FEBRUARY -2003	ND	<23	1.80	1.14	ND	ND	<1.0	ND
MARCH -2003	ND	ND	2.01	0.83	ND	ND	<1.0	1.2
APRIL -2003	<23	<23	1.95	1.56	ND	ND	<1.0	ND
MAY -2003	<23	ND	2.32	1.83	ND	ND	1.0	ND
JUNE -2003	<23	<23	1.67	1.17	ND	ND	<1.0	ND
JULY -2003	<23	29	0.96	0.73	ND	ND	<1.0	<1.0
AUGUST -2003	36	<23	1.44	1.53	ND	ND	ND	ND
SEPTEMBER-2003	<23	<23	1.87	1.62	ND	ND	<1.0	ND
OCTOBER -2003	ND	ND	1.64	1.36	ND	ND	<1.0	ND
NOVEMBER -2003	ND	<23	1.48	1.11	ND	ND	ND	<1.0
DECEMBER -2003	50	37	1.58	1.61	ND	ND	ND	<1.0
=====								
AVERAGE	10	6	1.68	1.28	ND	ND	0.1	0.2

Analyte:	Chromium	Chromium	Copper	Copper	Iron	Iron	Lead	Lead
MDL Units:	5	5	4	4	30	30	18	18
Source:	PLR	PLE	PLR	PLE	PLR	PLE	PLR	PLE
=====								
JANUARY -2003	8.0	<5.0	115	35	7020	4720	ND	ND
FEBRUARY -2003	8.6	ND	127	41	7580	4480	ND	ND
MARCH -2003	7.1	ND	166	55	8020	4250	ND	ND
APRIL -2003	8.4	<5.0	156	62	7760	5050	ND	ND
MAY -2003	7.1	<5.0	135	49	8040	4820	ND	ND
JUNE -2003	<5.0	<5.0	154	61	7670	5040	<18.0	<18.0
JULY -2003	7.5	<5.0	232	93	8080	5160	ND	ND
AUGUST -2003	10.1	<5.0	161	71	8030	5290	ND	<18.0
SEPTEMBER-2003	ND	ND	165	163	7820	5260	<18.0	ND
OCTOBER -2003	<5.0	<5.0	96	77	6550	5000	ND	ND
NOVEMBER -2003	<5.0	<5.0	164	125	6940	4830	ND	ND
DECEMBER -2003	8.1	<5.0	192	114	9390	6850	ND	<18.0
=====								
AVERAGE	5.4	0.0	155	79	7742	5063	0.0	0.0

ND= not detected  
NA= not analyzed  
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT  
ANNUAL SEWAGE  
Trace Metals

From: 01-JAN-2003 to: 31-DEC-2003

(Limits shown are the 6-Month Median Maximum)

Sampled by: ND,L,A4A  
Analyzed by: BOA,G8C,JRF,IEN,LXP,JRV, GS

Analyte:	Mercury	Mercury	Nickel	Nickel	Selenium	Selenium	Silver	Silver
MDL Units:	.09	.09	14	14	.28	.28	6.6	6.6
Source:	PLR	PLE	PLR	PLE	PLR	PLE	PLR	PLE
=====								
JANUARY -2003	0.12	ND	<14	ND	1.75	1.33	ND	ND
FEBRUARY -2003	0.25	ND	<14	<14	1.99	1.35	ND	ND
MARCH -2003	0.38	ND	<14	ND	1.59	1.18	ND	ND
APRIL -2003	0.25	<0.09	<14	<14	1.64	1.14	<6.6	ND
MAY -2003	0.50	0.23	<14	ND	1.43	0.73	<6.6	ND
JUNE -2003	0.17	ND	<14	<14	1.35	0.95	ND	ND
JULY -2003	0.21	<0.09	<14	<14	1.50	1.01	ND	ND
AUGUST -2003	0.15	ND	ND	ND	1.37	0.87	ND	<6.6
SEPTEMBER-2003	0.64	0.11	<14	ND	1.57	1.07	ND	ND
OCTOBER -2003	<0.09	ND	ND	ND	1.82	1.00	ND	ND
NOVEMBER -2003	0.28	ND	ND	ND	1.68	1.15	ND	<6.6
DECEMBER -2003	0.09	ND	ND	ND	1.65	1.14	<6.6	ND
=====								
AVERAGE	0.25	0.03	0	0	1.61	1.08	0.0	0.0

Analyte:	Thallium	Thallium	Zinc	Zinc
MDL Units:	40	40	4	4
Source:	PLR	PLE	PLR	PLE
=====				
JANUARY -2003	ND	ND	105	<4
FEBRUARY -2003	ND	ND	118	11
MARCH -2003	ND	ND	128	28
APRIL -2003	ND	ND	156	34
MAY -2003	ND	ND	146	24
JUNE -2003	ND	ND	131	19
JULY -2003	ND	ND	153	27
AUGUST -2003	ND	ND	139	13
SEPTEMBER-2003	ND	ND	148	22
OCTOBER -2003	ND	ND	134	18
NOVEMBER -2003	ND	ND	138	23
DECEMBER -2003	ND	ND	162	40
=====				
AVERAGE	ND	ND	138	22

ND= not detected  
NA= not analyzed  
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT  
 ANNUAL SEWAGE  
 Ammonia-Nitrogen and Total Cyanides  
 (Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2003 to: 31-DEC-2003

Sampled by: NDL,A4A  
 Analyzed by: JJI,HHD,JRV

	Ammonia-N .2 MG/L PLR	Ammonia-N .2 MG/L PLE	Cyanides,Total .002 MG/L PLR	Cyanides,Total .002 MG/L PLE
Limit:		123		0.200
JANUARY -2003	26.3	26.0	0.0028	0.0026
FEBRUARY -2003	26.6	25.4	0.0020	0.0022
MARCH -2003	24.7	24.4	<0.0020	<0.0020
APRIL -2003	28.2	28.9	0.0022	0.0031
MAY -2003	29.1	29.5	<0.0020	0.0030
JUNE -2003	29.6	30.2	<0.0020	0.0024
JULY -2003	29.4	29.6	<0.0020	<0.0020
AUGUST -2003	28.2	27.9	<0.0020	0.0031
SEPTEMBER-2003	28.6	28.7	<0.0020	0.0026
OCTOBER -2003	26.9	27.9	0.0030	0.0037
NOVEMBER -2003	26.6	26.6	0.0024	0.0025
DECEMBER -2003	28.1	27.7	0.0027	0.0029
Average:	27.7	27.7	0.0013	0.0023

ND= not detected  
 NA= not analyzed  
 NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT  
ANNUAL SEWAGE  
Radioactivity

From: 01-JAN-2003 to: 31-DEC-2003

Sampled by: NDL,A4A  
Analyzed by: Truesdail Labs Inc.

Source	Month	Gross Alpha Radiation	Gross Beta Radiation
PLR	JANUARY -2003	2.1±1.8	14.5±4.4
PLR	FEBRUARY -2003	5.3±2.0	20.9±4.3
PLR	MARCH -2003	3.0±1.5	20.7±4.2
PLR	APRIL -2003	3.6±1.6	16.0±4.4
PLR	MAY -2003	3.0±1.3	18.1±4.3
PLR	JUNE -2003	4.2±1.8	23.4±4.4
PLR	JULY -2003	3.2±1.5	12.8±3.8
PLR	AUGUST -2003	5.1±1.6	23.1±5.1
PLR	SEPTEMBER-2003	2.1±1.4	22.6±4.3
PLR	OCTOBER -2003	2.3±1.4	20.2±4.6
PLR	NOVEMBER -2003	3.8±1.9	18.6±4.2
PLR	DECEMBER -2003	3.6±1.5	25.2±5.0
AVERAGE		3.4±1.6	19.7±4.4

Source	Month	Gross Alpha Radiation	Gross Beta Radiation
PLE	JANUARY -2003	1.2±1.2	13.4±4.2
PLE	FEBRUARY -2003	3.5±1.4	20.8±4.4
PLE	MARCH -2003	1.4±1.0	20.0±4.3
PLE	APRIL -2003	3.0±1.2	16.2±3.3
PLE	MAY -2003	1.0±0.9	20.0±4.4
PLE	JUNE -2003	2.6±1.2	20.8±4.2
PLE	JULY -2003	1.1±1.0	20.9±4.4
PLE	AUGUST -2003	1.7±1.1	20.0±4.4
PLE	SEPTEMBER-2003	1.1±1.2	19.9±4.2
PLE	OCTOBER -2003	0.2±1.1	23.4±4.8
PLE	NOVEMBER -2003	0.3±0.8	9.9±6.3
PLE	DECEMBER -2003	1.1±1.0	31.7±5.3
AVERAGE		1.5±1.1	19.8±4.5

ND= not detected  
NA= not analyzed  
NS= not sampled

Units in picocuries/liter (pCi/L)

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
Aldrin	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	10	NG/L	<10	53	<10	<10	ND	16	<10	32	13	<10	<10	ND	10
BHC, Delta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDE	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDT	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDE	100	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDT	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	80	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxychlordane	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<30	ND	ND	0
Beta Endosulfan	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<20	ND	ND	0
Endrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1016	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1262	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	60	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	20	NG/L	0	53	0	0	0	0	16	0	32	13	0	0	10
DDT and derivatives	100	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	80	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	4000	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfans	30	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Heptachlors	20	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	4000	NG/L	0	53	0	0	0	0	16	0	32	13	0	0	10

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
Aldrin	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	10	NG/L	29	131	15	25	21	38	30	35	19	ND	15	ND	30
BHC, Delta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDE	20	NG/L	ND	ND	ND	ND	<20	ND	ND	ND	ND	ND	ND	ND	0
p,p-DDT	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDE	100	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDT	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	80	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxychlordane	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1016	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1262	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	60	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	20	NG/L	29	131	15	25	21	38	30	35	19	0	15	0	30
DDT and derivatives	100	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	80	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	4000	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfans	30	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Heptachlors	20	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	4000	NG/L	29	131	15	25	21	38	30	35	19	0	15	0	30

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus Pesticides EPA Method 614/622 (with additions)

From 01-JAN-2003 To 31-DEC-2003

Sampling: LC,MC,BGB,RJ,SKB,HHD,NC  
Analysis: CW,TB,KD

Analyte	MDL Units	PLE	PLR	MBC_COMBCN	MBC_NC_DSL	MBC_NC_RSL
		07-OCT-2003 P230221	07-OCT-2003 P230226	07-OCT-2003 P230236	07-OCT-2003 P230296	07-OCT-2003 P230294
Demeton O	.2 UG/L	ND	ND	ND	ND	ND
Demeton S	.07 UG/L	ND	ND	ND	ND	ND
Diazinon	.07 UG/L	0.1	ND	ND	ND	ND
Guthion	.15 UG/L	ND	ND	ND	ND	ND
Malathion	.07 UG/L	0.1	0.1	ND	ND	ND
Parathion	.06 UG/L	ND	ND	ND	ND	ND
Thiophosphorus Pesticides	.15 UG/L	0.1	0.1	0.0	0.0	0.0
Demeton -O, -S	.2 UG/L	0.0	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.2 UG/L	0.2	0.1	0.0	0.0	0.0

Additional analytes...

Analyte	Units	PLE	PLR	MBC_COMBCN	MBC_NC_DSL	MBC_NC_RSL
Tetraethylpyrophosphate	UG/L	NA	NA	NA	NA	NA
Dichlorvos	.05 UG/L	ND	ND	ND	ND	ND
Dibrom	.2 UG/L	ND	ND	ND	ND	ND
Ethoprop	.04 UG/L	ND	ND	ND	ND	ND
Phorate	.04 UG/L	ND	ND	ND	ND	ND
Sulfotepp	.04 UG/L	ND	ND	ND	ND	ND
Disulfoton	.08 UG/L	ND	ND	ND	ND	ND
Monocrotophos	UG/L	NA	NA	NA	NA	NA
Dimethoate	.06 UG/L	ND	ND	ND	ND	ND
Ronnel	.06 UG/L	ND	ND	ND	ND	ND
Trichloronate	.07 UG/L	ND	ND	ND	ND	ND
Merphos	.07 UG/L	ND	ND	ND	ND	ND
Dichlofenthion	.08 UG/L	ND	ND	ND	ND	ND
Tokuthion	.07 UG/L	ND	ND	ND	ND	ND
Stirophos	.08 UG/L	ND	ND	ND	ND	ND
Bolstar	.1 UG/L	ND	ND	ND	ND	ND
Fensulfothion	.15 UG/L	ND	ND	ND	ND	ND
EPN	.07 UG/L	ND	ND	ND	ND	ND
Coumaphos	.15 UG/L	ND	ND	ND	ND	ND
Mevinphos, e isomer	.05 UG/L	ND	ND	ND	ND	ND
Mevinphos, z isomer	.2 UG/L	NA	NA	NA	NA	NA
Chlorpyrifos	.07 UG/L	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus Pesticides EPA Method 614/622 (with additions)

From 01-JAN-2003 To 31-DEC-2003

Sampling: LC,MC,BGB,RJ,SKB,HHD,NC  
Analysis: CW,TB,KD

Analyte	MDL	Units	RAW COMP	DIG COMP
			07-OCT-2003 P230266	07-OCT-2003 P230280
Demeton O	.2	UG/L	ND	ND
Demeton S	.07	UG/L	ND	ND
Diazinon	.07	UG/L	ND	ND
Guthion	.15	UG/L	ND	ND
Malathion	.07	UG/L	ND	ND
Parathion	.06	UG/L	ND	ND
Thiophosphorus Pesticides	.15	UG/L	0.0	0.0
Demeton -O, -S	.2	UG/L	0.0	0.0
Total Organophosphorus Pesticides	.2	UG/L	0.0	0.0

Additional analytes...

Analyte	MDL	Units	RAW COMP	DIG COMP
Tetraethylpyrophosphate		UG/L	NA	NA
Dichlorvos	.05	UG/L	ND	ND
Dibrom	.2	UG/L	ND	ND
Ethoprop	.04	UG/L	ND	ND
Phorate	.04	UG/L	ND	ND
Sulfotepp	.04	UG/L	ND	ND
Disulfoton	.08	UG/L	ND	ND
Monocrotophos		UG/L	NA	NA
Dimethoate	.06	UG/L	ND	ND
Ronnel	.06	UG/L	ND	ND
Trichloronate	.07	UG/L	ND	ND
Merphos	.07	UG/L	ND	ND
Dichlofenthion	.08	UG/L	ND	ND
Tokuthion	.07	UG/L	ND	ND
Stirophos	.08	UG/L	ND	ND
Bolstar	.1	UG/L	ND	ND
Fensulfothion	.15	UG/L	ND	ND
EPN	.07	UG/L	ND	ND
Coumaphos	.15	UG/L	ND	ND
Mevinphos, e isomer	.05	UG/L	ND	ND
Mevinphos, z isomer	.2	UG/L	NA	NA
Chlorpyrifos	.07	UG/L	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed



POINT LOMA WASTEWATER TREATMENT PLANT  
 ANNUAL SEWAGE MONTHLY - Tributyl Tin analysis

From 01-JAN-2003 To 31-DEC-2003  
 Sampling: AM Analysis: JC, CW

Analyte	MDL Units	PLE JAN	PLE FEB	PLE MAR	PLE APR	PLE MAY	PLE JUN	PLE JUL	PLE AUG	PLE SEP	PLE OCT	PLE NOV	PLE DEC	Average
Dibutyl tin	.75 UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Monobutyl Tin 4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tributyl tin	.75 UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL Units	PLR JAN	PLR FEB	PLR MAR	PLR APR	PLR MAY	PLR JUN	PLR JUL	PLR AUG	PLR SEP	PLR OCT	PLR NOV	PLR DEC	Average
Dibutyl tin	.75 UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Monobutyl Tin 4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tributyl tin	.75 UG/L	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND	0.2

nd=not detected  
 NS=not sampled  
 NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL - Acid Extractables

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
2-chlorophenol	1.76	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	1.95	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	1.34	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	1.75	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	5.87	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	2.53	UG/L	10.6	8.5	10.2	13.3	12.5	11.5	11.1	10.4	7.6	7.8	9.6	12.5	10.5
2-nitrophenol	1.88	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dimethylphenol	1.32	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenol	6.07	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitrophenol	3.17	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chlorinated Phenols	5.87	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	6.07	UG/L	10.6	8.5	10.2	13.3	12.5	11.5	11.1	10.4	7.6	7.8	9.6	12.5	10.5
Phenols	6.07	UG/L	10.6	8.5	10.2	13.3	12.5	11.5	11.1	10.4	7.6	7.8	9.6	12.5	10.5

Additional analytes determined;

2-methylphenol	1.51	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methylphenol(3-MP is unresolved)	4.22	UG/L	35.8	30.7	25.3	38.8	41.6	31.3	25.8	21.9	19.0	22.7	26.7	41.2	30.1
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	Units	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
2-chlorophenol	1.76	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	1.95	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	1.34	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	1.75	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	5.87	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	2.53	UG/L	14.8	12.1	11.6	18.4	16.9	15.4	18.6	15.2	11.4	9.5	16.3	17.4	14.8
2-nitrophenol	1.88	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dimethylphenol	1.32	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenol	6.07	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitrophenol	3.17	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chlorinated Phenols	5.87	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	6.07	UG/L	14.8	12.1	11.6	18.4	16.9	15.4	18.6	15.2	11.4	9.5	16.3	17.4	14.8
Phenols	6.07	UG/L	14.8	12.1	11.6	18.4	16.9	15.4	18.6	15.2	11.4	9.5	16.3	17.4	14.8

Additional analytes determined;

2-methylphenol	1.51	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methylphenol(3-MP is unresolved)	4.22	UG/L	57.1	39.9	37.2	55.9	50.8	43.3	49.3	38.6	31.3	29.3	46.0	56.4	44.6
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL Priority Pollutants Base/Neutrals

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average	
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
bis(2-chloroethyl) ether	2.62	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1.65	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichlorobenzene	1.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-dichlorobenzene	2.3	UG/L	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	3.0	3.2	<2.3	3.2	0.8	
Bis-(2-chloroisopropyl) ether	8.95	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	3.55	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	1.93	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy)methane	1.57	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2.87	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene		UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	2.02	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	3.26	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dinitrotoluene	1.93	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	2.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrotoluene	1.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	3.62	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6.97	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	2.96	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	4.04	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	4.8	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	4.15	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	4.04	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	6.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodimethylamine	2.01	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	6.9	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	5.19	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzidine	1.02	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	4.77	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	7.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[A]anthracene	7.68	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	10.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	12.2	ND	ND	ND	ND	1.0
Di-n-octyl phthalate	8.59	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[K]fluoranthene	7.36	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	6.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[A]pyrene	6.53	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	6.27	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	6.19	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[G,H,I]perylene	6.5	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-diphenylhydrazine	2.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Dichlorobenzenes	1.65	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Polynuc. Aromatic Hydrocarbons	7.68	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	10.43	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.2	3.2	0.0	3.2	1.8	

Additional analytes determined;

1-methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	2.25	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dimethylnaphthalene	3.31	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-trimethylnaphthalene	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-methylphenanthrene	6.29	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[e]pyrene	7.67	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perylene	6.61	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Biphenyl	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL Priority Pollutants Base/Neutrals

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
bis(2-chloroethyl) ether	2.62	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1.65	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichlorobenzene	1.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-dichlorobenzene	2.3	UG/L	<2.3	<2.3	<2.3	2.3	<2.3	<2.3	3.2	4.1	3.4	<2.3	2.6	<2.3	<1.3
Bis-(2-chloroisopropyl) ether	8.95	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	3.55	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	1.93	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroethoxy)methane	1.57	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	2.87	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene		UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	2.02	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	3.26	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dinitrotoluene	1.93	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	2.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrotoluene	1.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	3.62	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	6.97	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	2.96	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	4.04	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	4.8	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	4.15	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	4.04	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	6.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodimethylamine	2.01	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	6.9	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	5.19	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzidine	1.02	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	4.77	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	7.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[A]anthracene	7.68	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	10.43	UG/L	ND	ND	ND	29.0	17.0	11.7	16.0	ND	14.0	12.9	12.9	ND	9.5
Di-n-octyl phthalate	8.59	UG/L	ND	ND	ND	ND	9.2	ND	ND	ND	ND	ND	ND	ND	0.8
3,3-dichlorobenzidine	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[K]fluoranthene	7.36	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	6.63	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[A]pyrene	6.53	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	6.27	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	6.19	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[G,H,I]perylene	6.5	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-diphenylhydrazine	2.49	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Dichlorobenzenes	1.65	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Polynuc. Aromatic Hydrocarbons	7.68	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	10.43	UG/L	<0.0	0.0	0.0	31.3	26.2	11.7	19.2	4.1	17.4	12.9	15.5	0.0	11.5

Additional analytes determined:

1-methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	2.25	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-dimethylnaphthalene	3.31	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-trimethylnaphthalene	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-methylphenanthrene	6.29	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[e]pyrene	7.67	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perylene	6.61	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Biphenyl	2.43	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
Chloromethane	1	UG/L	ND	<1.0	ND	ND	1.2	ND	ND	ND	ND	1.2	ND	ND	0.2
Bromomethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	1	UG/L	1.7	2.8	ND	ND	ND	ND	*	4.1	2.6	2.3	ND	17.9	2.9
1,1-dichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1	UG/L	3.4	6.4	5.4	6.8	7.2	5.4	5.6	5.8	6.8	6.3	7.5	7.9	6.2
1,2-dichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	UG/L	<1.0	1.5	1.2	1.6	ND	ND	2.4	1.0	1.4	1.2	3.1	2.3	1.3
1,2-dichloropropane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	UG/L	ND	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	0.2
Benzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	UG/L	<1.0	1.5	1.5	1.6	ND	ND	2.1	ND	1.2	<1.0	2.6	1.7	1.0
1,1,2-trichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chloroethylvinyl ether	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	UG/L	2.3	2.9	1.5	3.9	1.2	1.6	1.0	2.1	1.4	4.4	1.4	2.3	2.2
Chlorobenzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	13.8	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	11.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	1	UG/L	0.0	3.0	2.7	3.2	1.2	0.0	4.5	1.0	2.6	2.4	5.7	4.0	2.5
Purgeable Compounds	13.8	UG/L	11.5	15.1	9.6	22.5	9.6	19.3	18.4	13.0	21.4	15.4	14.6	32.1	16.9

Additional analytes determined;

Allyl chloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone	6.1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
meta,para xylenes	3.1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	4.7	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	1	UG/L	ND	ND	ND	ND	*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroprene	1.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl methacrylate	4.6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitropropane	10	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dibromoethane	3.3	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl chloride	7.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ortho-xylene	3.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	20	UG/L	262	411	763	3030	659	2750	1410	1970	1820	923	1880	1080	1413
Carbon disulfide	1	UG/L	ND	1.6	<1.0	1.6	1.7	1.8	<1.0	1.7	1.9	2.7	1.9	1.4	1.4
2-butanone	4	UG/L	4.1	ND	ND	6.8	ND	12.3	7.3	ND	8.0	*	ND	ND	3.5
Methyl tert-butyl ether	1	UG/L	4.5	1.3	1.5	5.2	1.4	1.8	1.6	ND	1.1	ND	ND	ND	1.5

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2003 to 31-DEC-2003

Analyte	MDL	Units	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg
Chloromethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	1	UG/L	<1.0	2.1	1.9	ND	ND	ND	*	3.4	2.1	2.8	ND	2.1	1.3
1,1-dichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1	UG/L	2.8	7.4	8.9	7.1	6.5	6.3	6.7	7.7	8.6	7.4	7.5	7.8	7.1
1,2-dichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	UG/L	<1.0	<1.0	2.2	1.9	ND	ND	1.8	1.1	3.3	2.5	3.7	ND	1.4
1,2-dichloropropane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloropropene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	UG/L	ND	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	ND	0.2
Benzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	UG/L	<1.0	<1.0	1.9	1.8	ND	ND	1.4	ND	2.5	2.0	2.9	ND	1.0
1,1,2-trichloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-chloroethylvinyl ether	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-tetrachloroethane	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	UG/L	ND	1.9	1.4	2.5	1.0	1.2	1.4	5.6	1.2	1.2	ND	1.3	1.6
Chlorobenzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	13.8	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	11.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	1	UG/L	0.0	0.0	4.1	3.7	0.0	0.0	3.2	1.1	5.8	4.5	6.6	0.0	2.4
Purgeable Compounds	13.8	UG/L	2.8	11.4	16.3	21.4	7.5	13.9	18.6	17.8	21.8	15.9	14.1	11.2	14.4

Additional analytes determined;

Allyl chloride	1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone	6.1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
meta,para xylenes	3.1	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	4.7	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Iodide	1	UG/L	ND	ND	ND	ND	*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroprene	1.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl methacrylate	4.6	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitropropane	10	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dibromoethane	3.3	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl chloride	7.2	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ortho-xylene	3.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	20	UG/L	146	585	3420	2570	341	1500	993	3260	2300	278	1140	1470	1500
Carbon disulfide	1	UG/L	ND	1.2	1.0	1.3	2.8	1.5	1.3	2.6	2.5	2.3	1.5	2.6	1.7
2-butanone	4	UG/L	<4.0	ND	ND	5.4	ND	6.4	7.3	ND	4.1	*	ND	ND	2.1
Methyl tert-butyl ether	1	UG/L	3.5	1.9	1.7	3.4	1.3	1.5	ND	13.3	ND	ND	ND	ND	2.2

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2003 to 31-DEC-2003

Sampled by: A. Martinez

Analyte	MDL	Units	Equiv	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2,3,7,8-tetra CDD	200	PG/L	1.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	0.500	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDD	400	PG/L	0.001	ND	ND	<100.000	ND	ND	ND	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	0.500	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDF	400	PG/L	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	Units	Equiv	PLE	PLE	PLE
				OCT	NOV	DEC
2,3,7,8-tetra CDD	200	PG/L	1.000	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	0.500	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	0.010	ND	ND	ND
octa CDD	400	PG/L	0.001	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	0.100	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	0.050	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	0.500	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	0.100	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	0.010	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	0.010	ND	ND	ND
octa CDF	400	PG/L	0.001	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2003 to 31-DEC-2003

Sampled by: A. Martinez

Analyte	MDL	Units	PLE	PLE	PLE	PLE	PLE	PLE	PLE	PLE	
			TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
			P199748	P205998	P206713	P209205	P211483	P216657	P219967	P223385	P229232
2,3,7,8-tetra CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDD	400	PG/L	ND	ND	0.070	ND	ND	ND	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDF	400	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND

Analyte	MDL	Units	PLE	PLE	PLE
			TCDD	TCDD	TCDD
			OCT	NOV	DEC
			P230221	P236459	P239535
2,3,7,8-tetra CDD	200	PG/L	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	ND	ND	ND
octa CDD	400	PG/L	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	ND	ND	ND
octa CDF	400	PG/L	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled



POINT LOMA WASTEWATER TREATMENT PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2003 to 31-DEC-2003

Sampled by: A. Martinez

Analyte	MDL	Units	Equiv	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
=====	====	====	====	P199751	P206001	P206716	P209208	P211488	P216660	P219970	P223390	P229235
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
2,3,7,8-tetra CDD	200	PG/L	1.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	0.500	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	0.010	ND	ND	220.000	ND	ND	ND	ND	ND	ND
octa CDD	400	PG/L	0.001	120.000	ND	1300.000	ND	ND	ND	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	0.500	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDF	400	PG/L	0.001	ND	ND	170.000	ND	ND	ND	ND	ND	ND

Analyte	MDL	Units	Equiv	PLR	PLR	PLR
				OCT	NOV	DEC
=====	====	====	====	P230226	P236462	P239538
=====	=====	=====	=====	=====	=====	=====
2,3,7,8-tetra CDD	200	PG/L	1.000	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	0.500	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	0.100	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	0.010	ND	ND	ND
octa CDD	400	PG/L	0.001	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	0.100	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	0.050	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	0.500	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	0.100	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	0.100	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	0.010	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	0.010	ND	ND	ND
octa CDF	400	PG/L	0.001	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2003 to 31-DEC-2003

Sampled by: A. Martinez

Analyte	MDL	Units	PLR	PLR	PLR	PLR	PLR	PLR	PLR	PLR	
			TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD	TCDD
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2,3,7,8-tetra CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	ND	ND	2.200	ND	ND	ND	ND	ND	ND
octa CDD	400	PG/L	0.120	ND	1.300	ND	ND	ND	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND
octa CDF	400	PG/L	ND	ND	0.170	ND	ND	ND	ND	ND	ND

Analyte	MDL	Units	PLR	PLR	PLR
			TCDD	TCDD	TCDD
			OCT	NOV	DEC
2,3,7,8-tetra CDD	200	PG/L	ND	ND	ND
1,2,3,7,8-penta CDD	200	PG/L	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	200	PG/L	ND	ND	ND
1,2,3,6,7,8-hexa CDD	200	PG/L	ND	ND	ND
1,2,3,7,8,9-hexa CDD	200	PG/L	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	200	PG/L	ND	ND	ND
octa CDD	400	PG/L	ND	ND	ND
2,3,7,8-tetra CDF	100	PG/L	ND	ND	ND
1,2,3,7,8-penta CDF	200	PG/L	ND	ND	ND
2,3,4,7,8-penta CDF	200	PG/L	ND	ND	ND
1,2,3,4,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,6,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,7,8,9-hexa CDF	200	PG/L	ND	ND	ND
2,3,4,6,7,8-hexa CDF	200	PG/L	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	200	PG/L	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	200	PG/L	ND	ND	ND
octa CDF	400	PG/L	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

**2003**  
**Point Loma Treatment Plant**  
**Total Coliforms**

The following are the monthly Total Coliform results of the Point Loma Treatment Plant Effluent. The value is stated in terms of Most Probable Number (MPN) per 100 milliliters of sample.

SAMPLE SOURCE (Pt. Loma Treatment Plant Effluent)

DATE	TOTAL COLIFORM (MPN Index/100ml)
January 3, 2003	5,000,000
February 3, 2003	17,000,000
March 6, 2003	13,000,000
April 9, 2003	14,000,000
May 8, 2003	23,000,000
June 5, 2003	8,000,000
July 11, 2003	50,000,000
August 12, 2003	13,000,000
September 5, 2003	80,000,000
October 7, 2003	30,000,000
November 6, 2003	30,000,000
December 1, 2003	8,000,000
December 30, 2003	11,000,000
Average	23,230,769.23

POINT LOMA WASTEWATER TREATMENT PLANT  
From 01-JAN-2003 To 31-DEC-2003

SAMPLED BY: NL,JC,GR,MS,MC  
ANALYZED BY: HD,JC,MC,GR,GS,JW,FM

MDL:	Total Hardness		Calcium Hardness		Magnesium Hardness		Calcium		Magnesium	
	.22 mg/L Inf.	mg/L Eff.	.2 mg/L Inf.	mg/L Eff.	.08 mg/L Inf.	mg/L Eff.	.08 mg/L Inf.	mg/L Eff.	.02 mg/L Inf.	mg/L Eff.
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
JANUARY -2003	427	403	214	196	213	207	86	79	52	50
FEBRUARY -2003	451	423	234	214	216	209	94	86	53	51
MARCH -2003	406	370	214	190	192	180	86	76	47	44
APRIL -2003	439	415	237	217	202	198	95	87	49	48
MAY -2003	430	410	222	205	208	205	89	82	51	50
JUNE -2003	433	409	220	204	213	205	88	82	52	50
JULY -2003	406	405	195	189	211	215	78	76	51	52
AUGUST -2003	436	389	216	190	220	200	86	76	54	49
SEPTEMBER-2003	454	435	223	209	231	227	89	84	56	55
OCTOBER -2003	506	453	244	219	262	235	98	88	64	57
NOVEMBER -2003	470	433	240	217	230	216	96	87	56	52
DECEMBER -2003	460	434	240	224	220	211	96	90	53	51
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Average:	443	415	225	206	218	209	90	83	53	51

MDL:	Alkalinity		Total Solids		Total Vol. Solids		Conductivity		Fluoride	
	1.5 mg/L Inf.	mg/L Eff.	100 mg/L Inf.	mg/L Eff.	100 mg/L Inf.	mg/L Eff.	10umhos/cm Inf.	mg/L Eff.	.05 mg/L Inf.	mg/L Eff.
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
JANUARY -2003	282	245	1960	1730	500	306	2880	2880	0.86	0.87
FEBRUARY -2003	282	246	1930	1720	501	304	2760	2760	0.93	0.95
MARCH -2003	274	241	1770	1540	483	299	2400	2390	0.94	1.04
APRIL -2003	285	260	1800	1560	468	260	2520	2530	0.82	0.87
MAY -2003	290	268	1800	1580	473	293	2580	2580	0.94	0.94
JUNE -2003	288	266	1980	1710	560	338	2740	2750	0.87	0.88
JULY -2003	285	261	2000	1760	514	325	2860	2800	0.79	0.82
AUGUST -2003	279	252	2070	1850	591	405	2800	2820	0.84	0.85
SEPTEMBER-2003	279	247	2070	1870	531	379	2920	2930	0.90	0.93
OCTOBER -2003	276	250	2010	1770	492	295	2910	2920	0.69	0.73
NOVEMBER -2003	281	251	1900	1690	452	275	2750	2750	0.90	0.91
DECEMBER -2003	289	255	1990	1700	485	256	2770	2750	0.84	0.93
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Average:	283	254	1940	1707	504	311	2741	2738	0.86	0.89

MDL:	Chloride		Bromide		Sulfate		Nitrate		Ortho Phosphate	
	7 mg/L Inf.	mg/L Eff.	.1 mg/L Inf.	mg/L Eff.	9 mg/L Inf.	mg/L Eff.	.04 mg/L Inf.	mg/L Eff.	.2 mg/L Inf.	mg/L Eff.
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
JANUARY -2003	590	604	0.67	0.99	261	261	ND	0.76	5.68	0.60
FEBRUARY -2003	536	549	0.64	0.97	268	266	ND	0.84	5.12	0.54
MARCH -2003	522	526	0.96	0.85	257	255	ND	ND	3.74	ND
APRIL -2003	480	502	1.02	0.97	242	243	ND	0.29	5.58	ND
MAY -2003	512	519	1.09	1.05	228	226	ND	ND	5.80	1.06
JUNE -2003	551	557	0.97	0.94	230	228	ND	ND	6.22	1.46
JULY -2003	596	637	1.23	1.07	235	241	ND	ND	6.94	0.83
AUGUST -2003	583	589	1.51	1.50	240	242	ND	ND	6.54	2.04
SEPTEMBER-2003	614	625	1.43	1.36	252	256	ND	ND	5.54	ND
OCTOBER -2003	652	617	1.20	0.96	263	261	ND	ND	6.28	ND
NOVEMBER -2003	543	555	1.59	1.40	267	269	ND	ND	7.07	ND
DECEMBER -2003	542	535	1.34	1.32	273	275	0.24	0.22	6.79	ND
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Average:	560	568	1.14	1.12	251	252	0.02	0.18	5.94	0.54

ND=not detected; NR=not required; NS=not sampled; NA=not analyzed

Samples are 24 hour composites

POINT LOMA WASTEWATER TREATMENT PLANT  
From 01-JAN-2003 To 31-DEC-2003

SAMPLED BY: NL,JC,GR,MS,MC  
ANALYZED BY: HD,JC,MC,GR,GS,JW,FM

	Lithium		Sodium		Potassium		Chemical Oxygen Demand		Soluble BOD	
	MDL:	.01 mg/L Inf. Eff.	.3 mg/L Inf. Eff.	2 mg/L Inf. Eff.	22 mg/L Inf. Eff.	2 mg/L Inf. Eff.	2 mg/L Inf. Eff.			
JANUARY -2003	<0.01	0.03	326	326	26.8	24.6	561	212	84	65
FEBRUARY -2003	0.06	0.03	334	331	25.6	26.2	544	229	78	57
MARCH -2003	0.05	0.04	289	269	21.8	20.8	535	237	75	62
APRIL -2003	0.06	0.06	310	307	28.5	27.6	515	245	86	77
MAY -2003	0.05	0.05	336	331	33.1	30.3	599	256	97	80
JUNE -2003	0.03	0.04	333	333	19.0	29.7	595	244	96	83
JULY -2003	0.05	0.02	346	361	25.3	26.9	508	228	100	82
AUGUST -2003	0.06	0.05	360	334	29.0	28.6	513	226	94	76
SEPTEMBER-2003	0.05	0.05	392	389	30.5	29.5	551	215	88	70
OCTOBER -2003	0.03	0.04	433	392	31.3	28.9	571	242	81	66
NOVEMBER -2003	0.04	0.04	371	354	27.8	26.0	531	225	77	57
DECEMBER -2003	0.04	0.06	349	340	29.7	27.9	438	280	78	65
Average:	0.04	0.04	348	339	27.4	27.3	538	237	86	70

	Total Dissolved Solids		Floatables		Turbidity		Aluminum		Barium	
	MDL:	42 mg/L Inf. Eff.	.1 mg/L Inf. Eff.	NTU Inf. Eff.	50 ug/L Inf. Eff.	10 ug/L Inf. Eff.				
JANUARY -2003	1610	1570	2.9	0.1	138	40	1900	207	107	34
FEBRUARY -2003	1580	1550	4.6	0.2	141	38	1710	188	115	36
MARCH -2003	1480	1470	3.5	0.1	137	39	2750	127	115	33
APRIL -2003	1430	1420	5.4	0.1	139	44	2050	273	122	33
MAY -2003	1470	1450	3.7	0.1	141	48	1990	154	110	29
JUNE -2003	1550	1550	2.9	0.1	133	49	1950	417	105	30
JULY -2003	1740	1730	2.5	0.1	130	50	1690	103	104	32
AUGUST -2003	1700	1690	2.6	0.1	127	48	1550	118	111	36
SEPTEMBER-2003	1670	1660	2.0	0.1	125	47	1740	88	118	36
OCTOBER -2003	1680	1680	1.8	0.2	127	47	1450	81	114	38
NOVEMBER -2003	1560	1550	2.5	0.1	129	46	1850	103	127	39
DECEMBER -2003	1620	1610	3.4	0.2	130	47	2210	162	156	47
Average:	1591	1578	3.2	0.1	133	45	1903	168	117	35

	Boron		Cobalt		Molybdenum		Manganese		Vanadium	
	MDL:	15 ug/L Inf. Eff.	4 ug/L Inf. Eff.	3 ug/L Inf. Eff.	4 ug/L Inf. Eff.	7 ug/L Inf. Eff.				
JANUARY -2003	455	357	NR	NR	NR	NR	124	134	NR	NR
FEBRUARY -2003	431	359	ND	ND	7	10	135	151	ND	ND
MARCH -2003	417	320	<4	ND	7	8	146	158	<7	ND
APRIL -2003	460	448	ND	ND	15	10	144	161	ND	ND
MAY -2003	448	388	21	5	14	8	160	159	ND	ND
JUNE -2003	452	420	<4	<4	14	13	138	142	<7	ND
JULY -2003	537	524	ND	ND	11	9	139	154	8	<7
AUGUST -2003	493	291	<4	<4	13	7	142	143	<7	ND
SEPTEMBER-2003	496	490	ND	<4	NR	NR	130	152	NR	NR
OCTOBER -2003	456	371	ND	ND	9	7	129	134	ND	ND
NOVEMBER -2003	397	369	ND	ND	7	5	125	133	<7	<7
DECEMBER -2003	498	373	ND	<4	NR	NR	160	183	<7	10
Average:	462	393	2	0	11	9	139	150	1	1

ND=not detected; NR=not required; NS=not sampled; NA=not analyzed

Samples are 24 hour composites

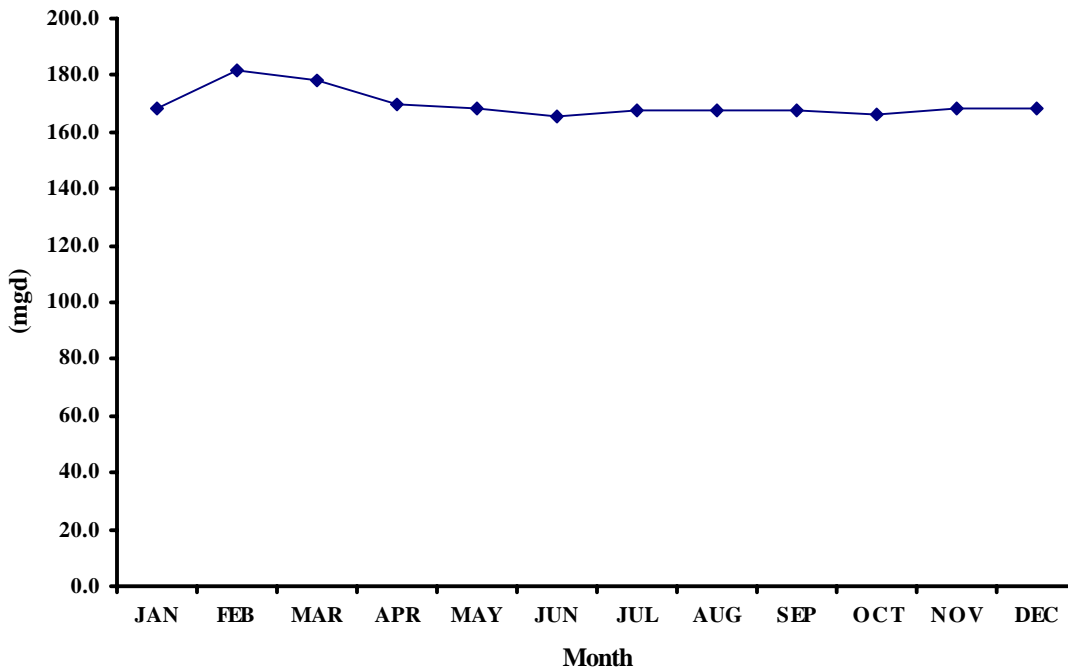


B. Influent and Effluent Graphs.

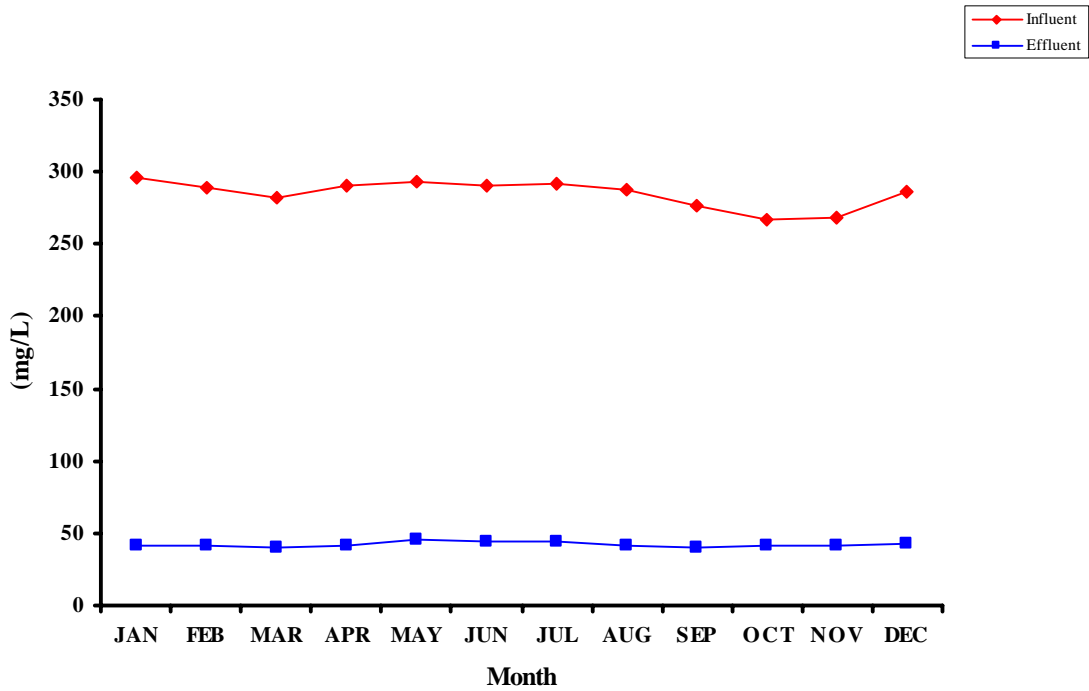
Graphs of monthly averages for permit parameters with measurable concentration averages.

Where possible, the influent and effluent values of a given parameter have been included on the same graph so that removals and other relationships are readily apparent. Please note that many of the graphs are on expanded scales. That is, they normally don't go to zero concentrations but show, in magnified scale, that range of concentrations where variation takes place. This makes differences and some trends obvious that might normally not be noticed. However, it also provides the temptation to interpret minor changes or trends as being of more significance than they are. Frequent reference to the scales and the actual differences in concentrations is therefore necessary.

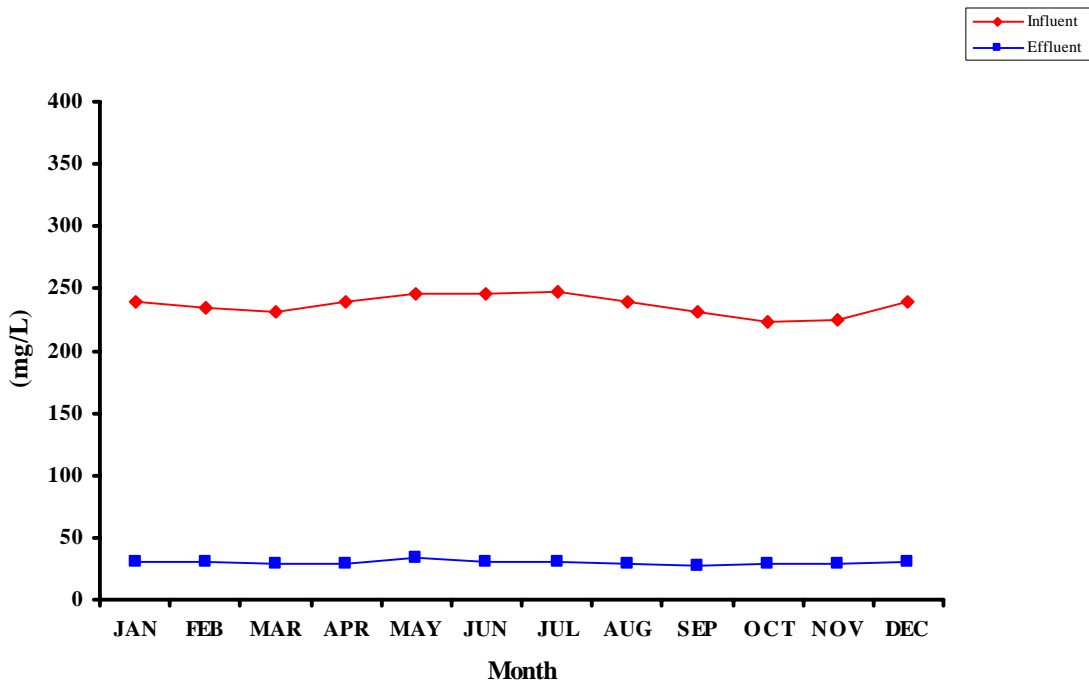
**Flows (mgd)  
2003 Monthly Averages**



### Total Suspended Solids (mg/L) 2003 Monthly Averages

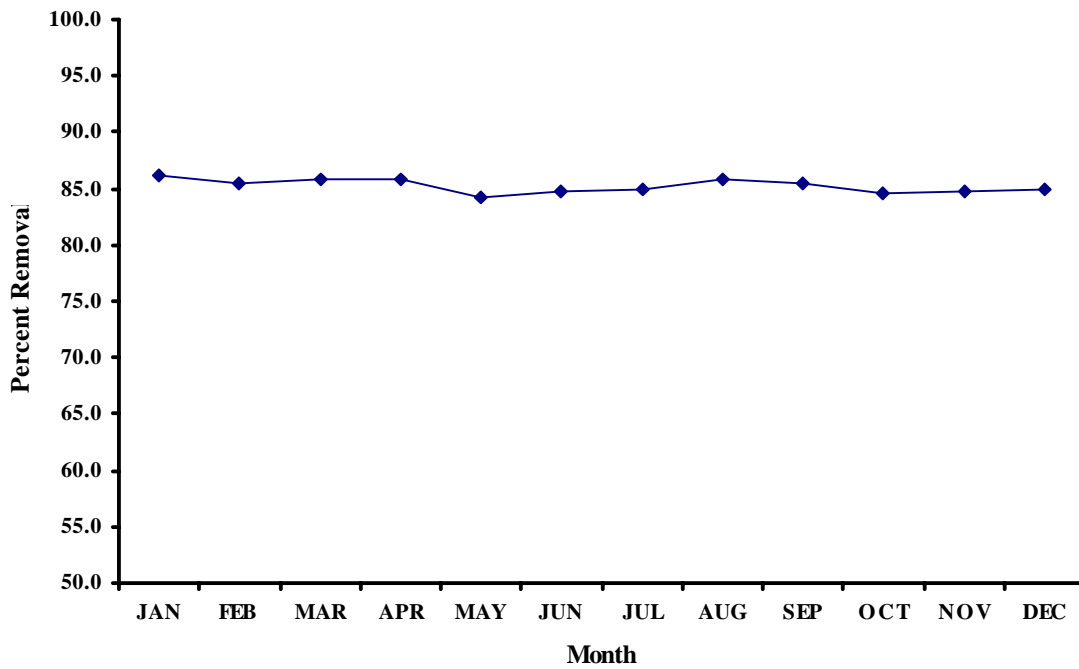


### Volatile Suspended Solids (mg/L) 2003 Monthly Averages

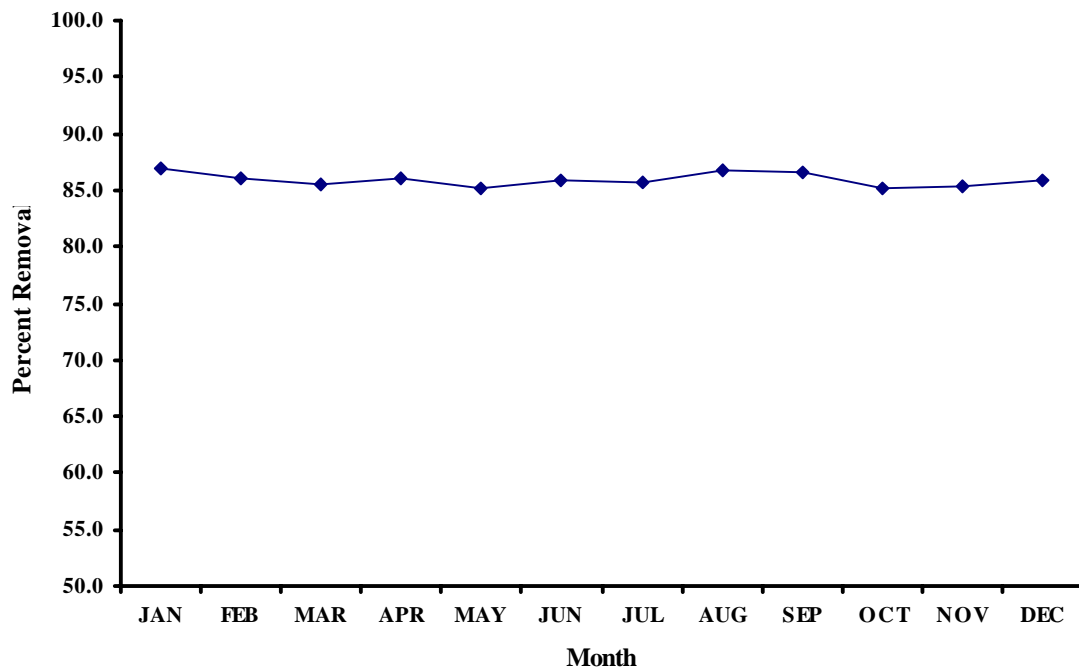




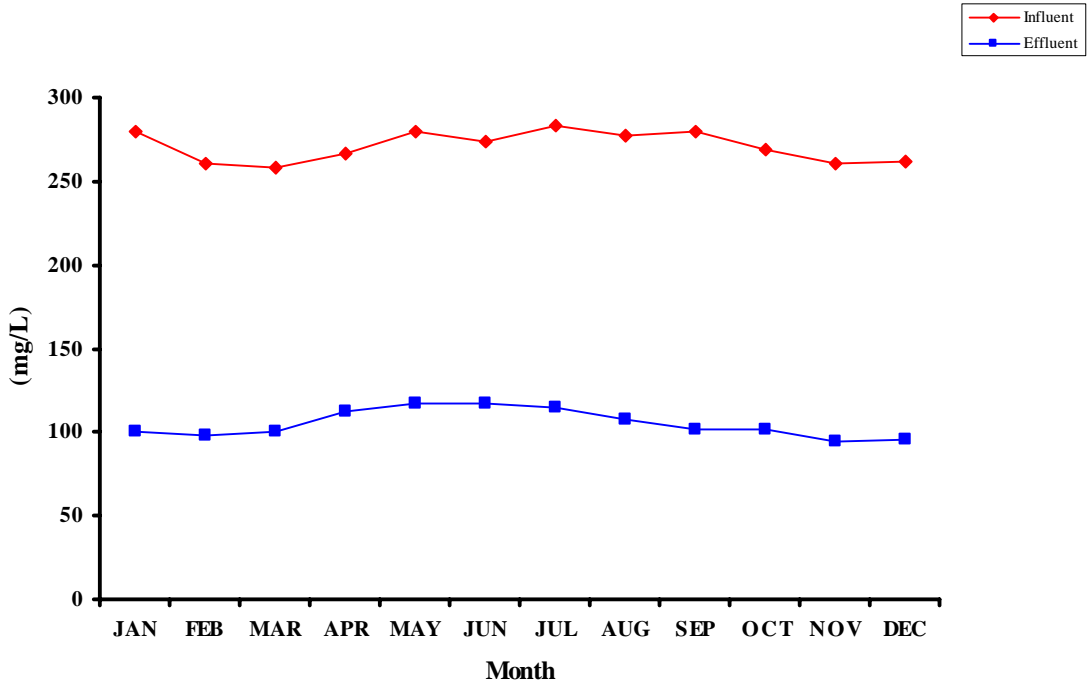
### Total Suspended Solids (%) Removal 2003 Monthly Averages at Point Loma



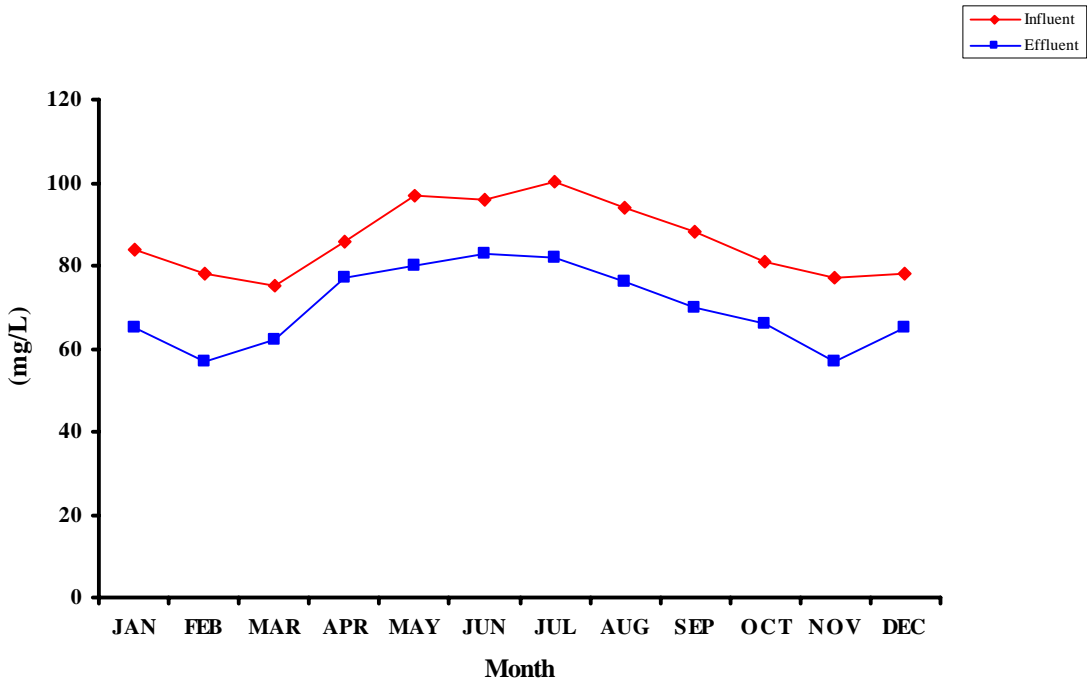
### Total Suspended Solids (%) Removal 2003 Monthly Averages Systemwide



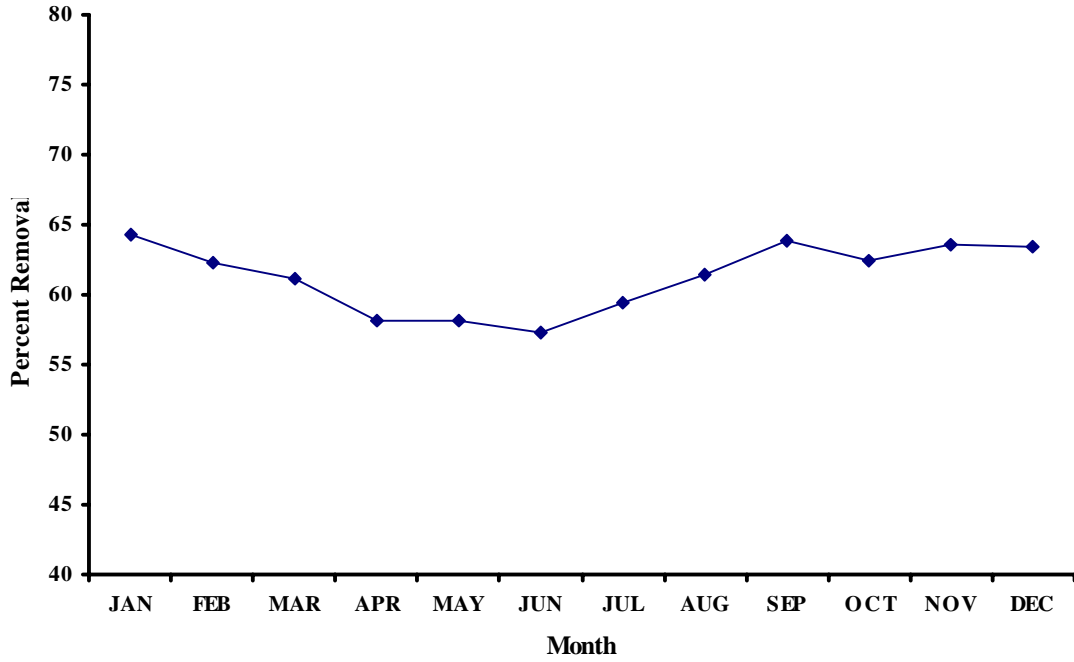
### Biochemical Oxygen Demand 2003 Monthly Averages



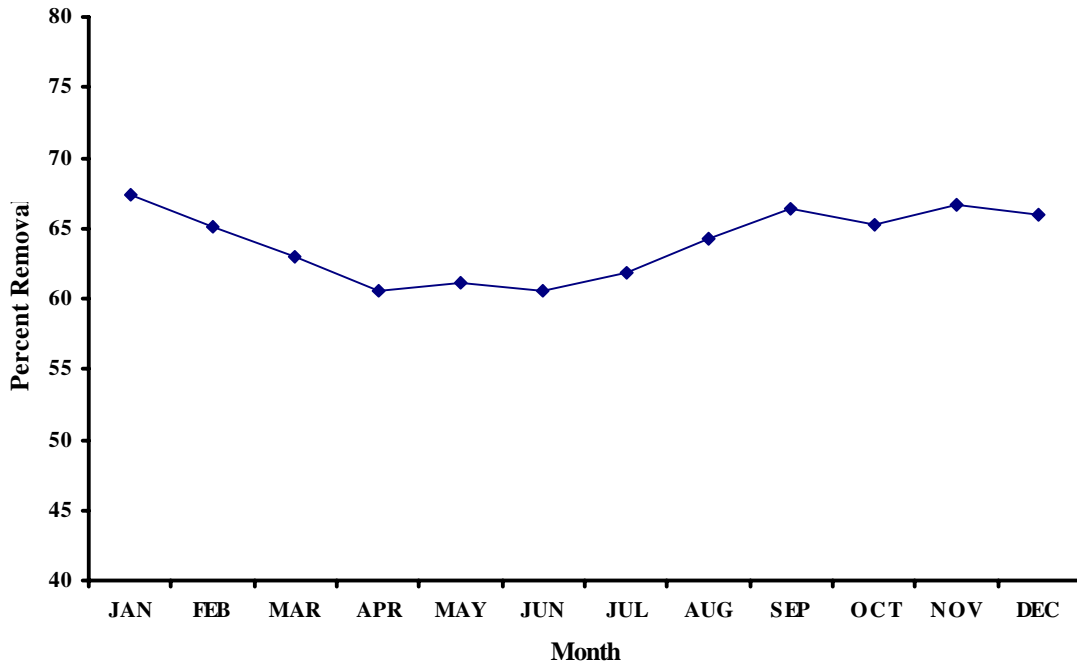
### Soluble Biochemical Oxygen Demand 2003 Monthly Averages



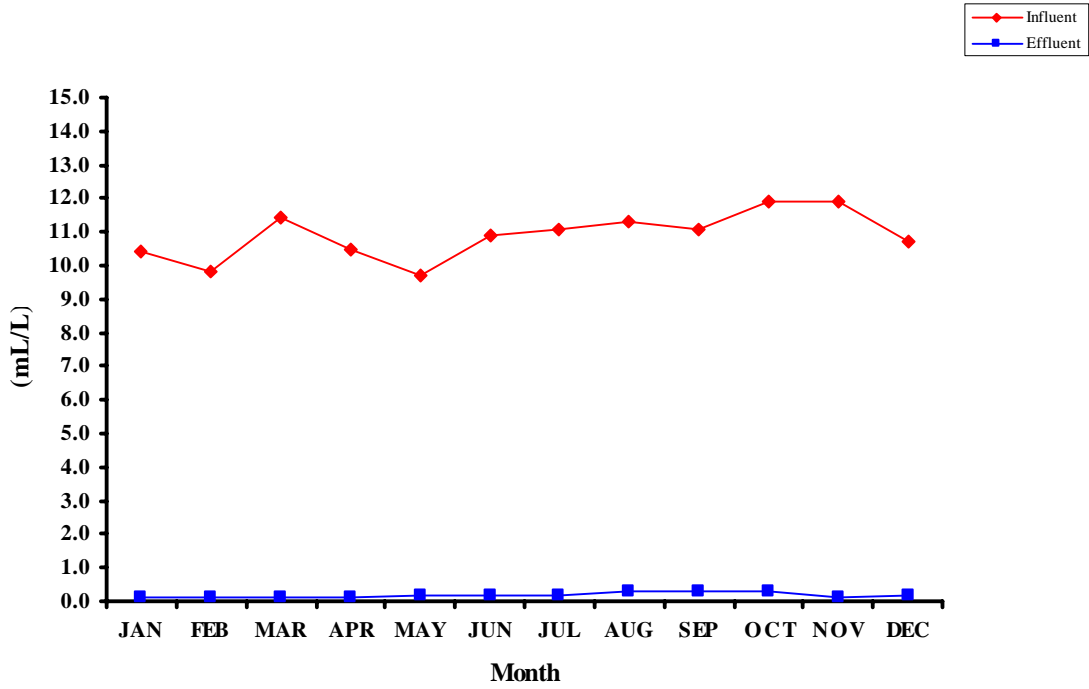
**Biochemical Oxygen Demand (%) Removal  
2003 Monthly Averages at Point Loma**



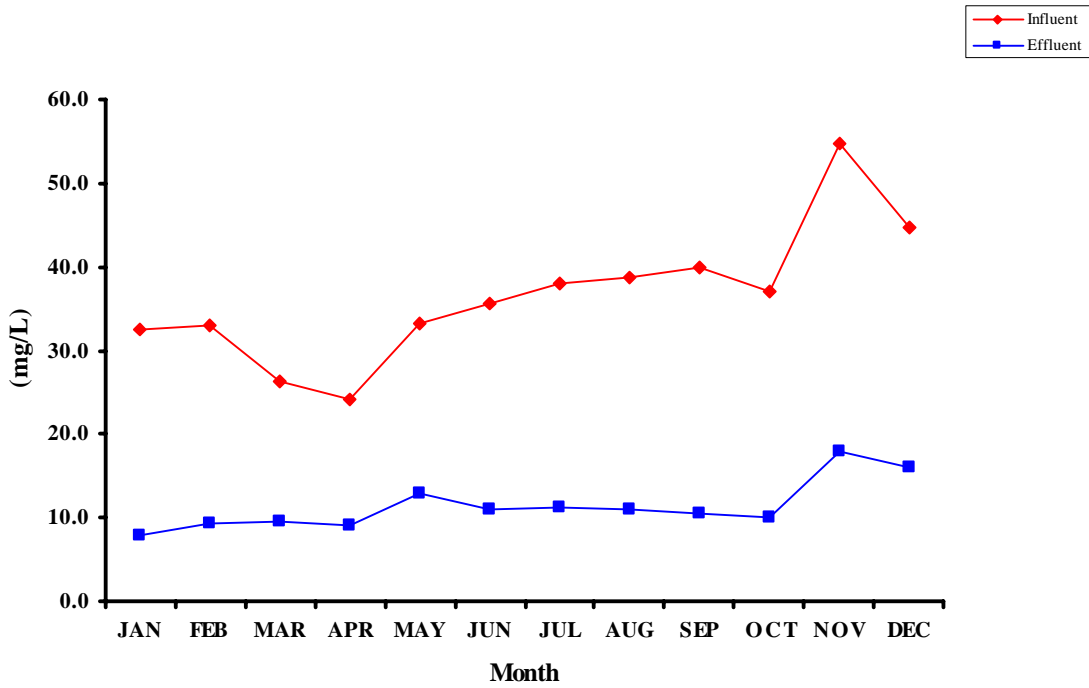
**Biochemical Oxygen Demand (%) Removal  
2003 Monthly Averages Systemwide**



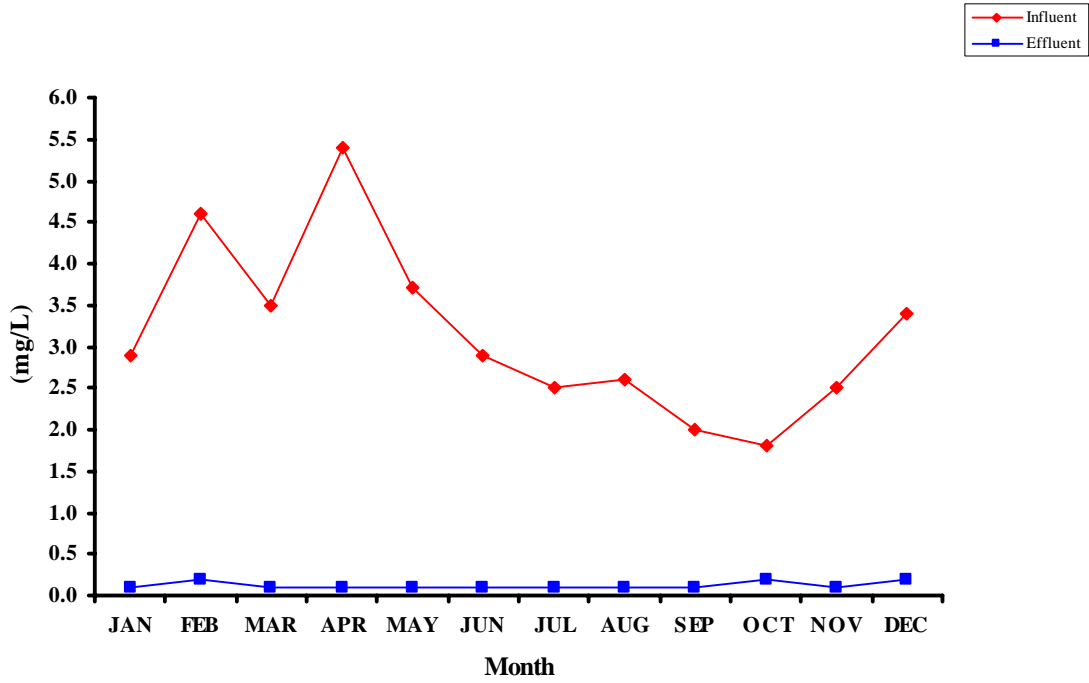
### Settleable Solids (mL/L) 2003 Monthly Averages



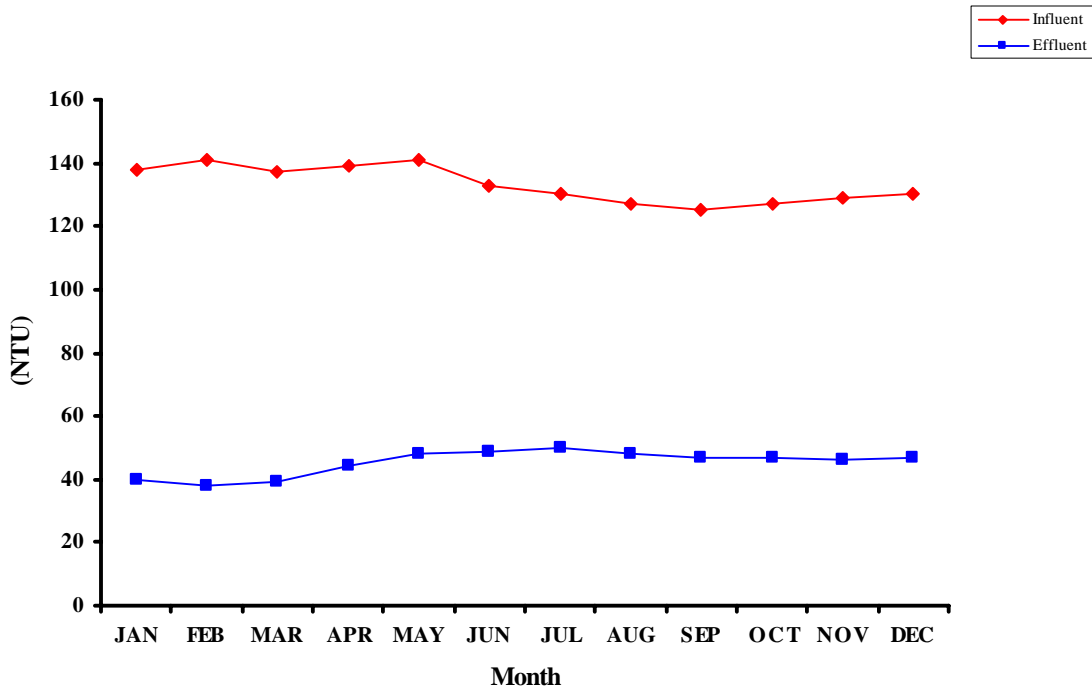
### Oil and Grease (mg/L) 2003 Monthly Averages



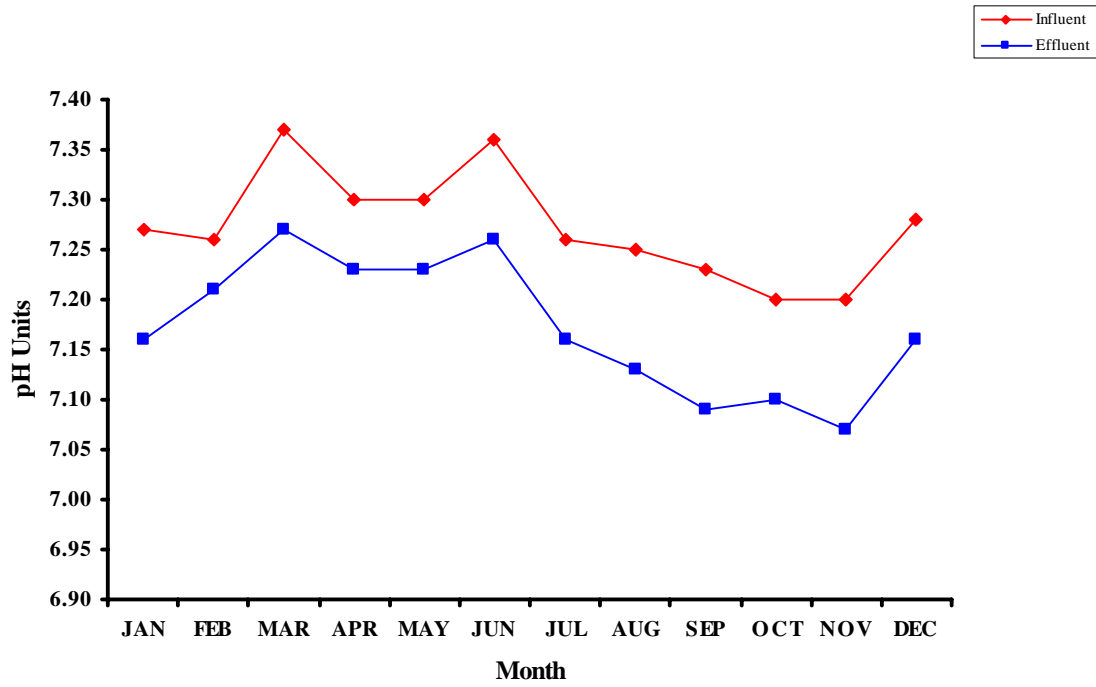
### Floatables (mg/L) 2003 Monthly Averages



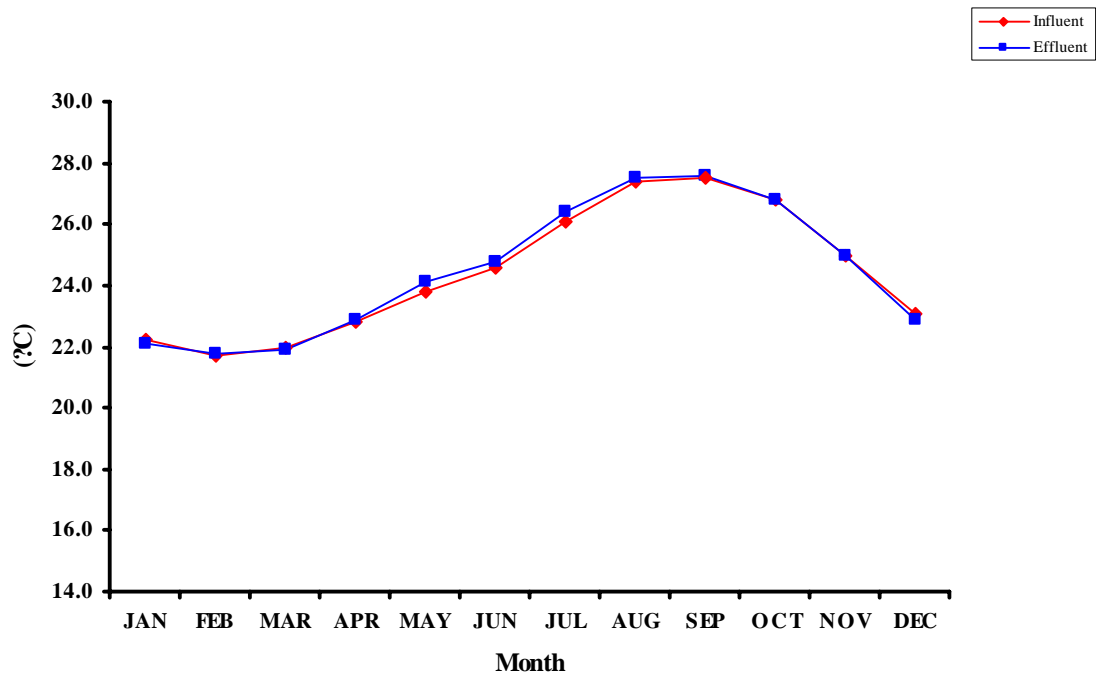
### Turbidity (NTU) 2003 Monthly Averages



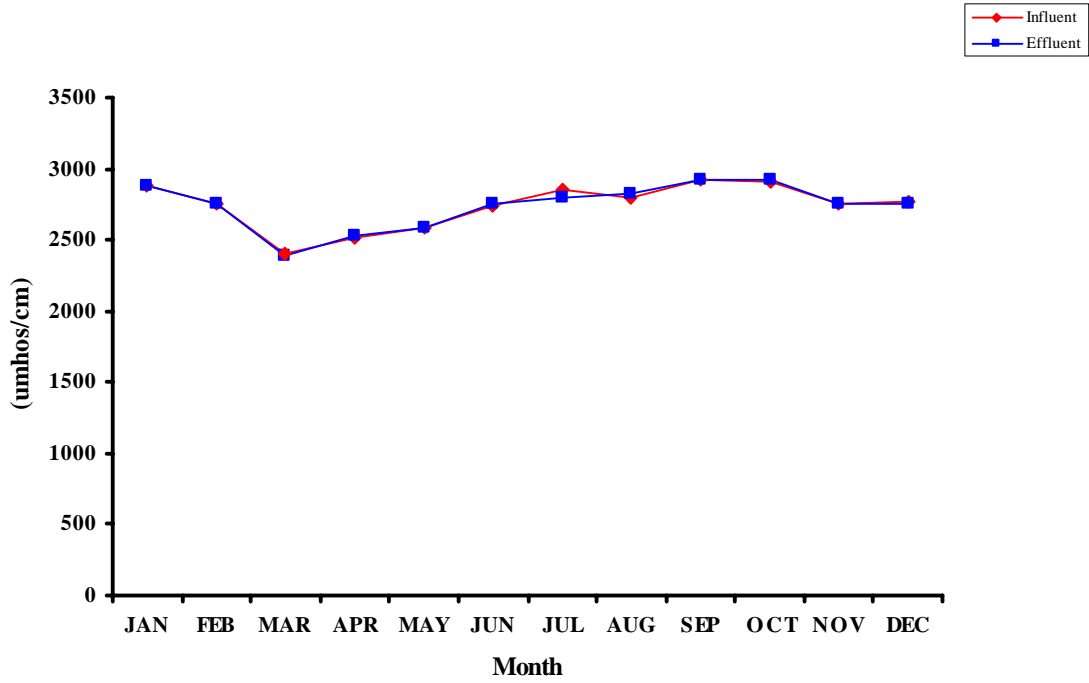
### pH 2003 Monthly Averages



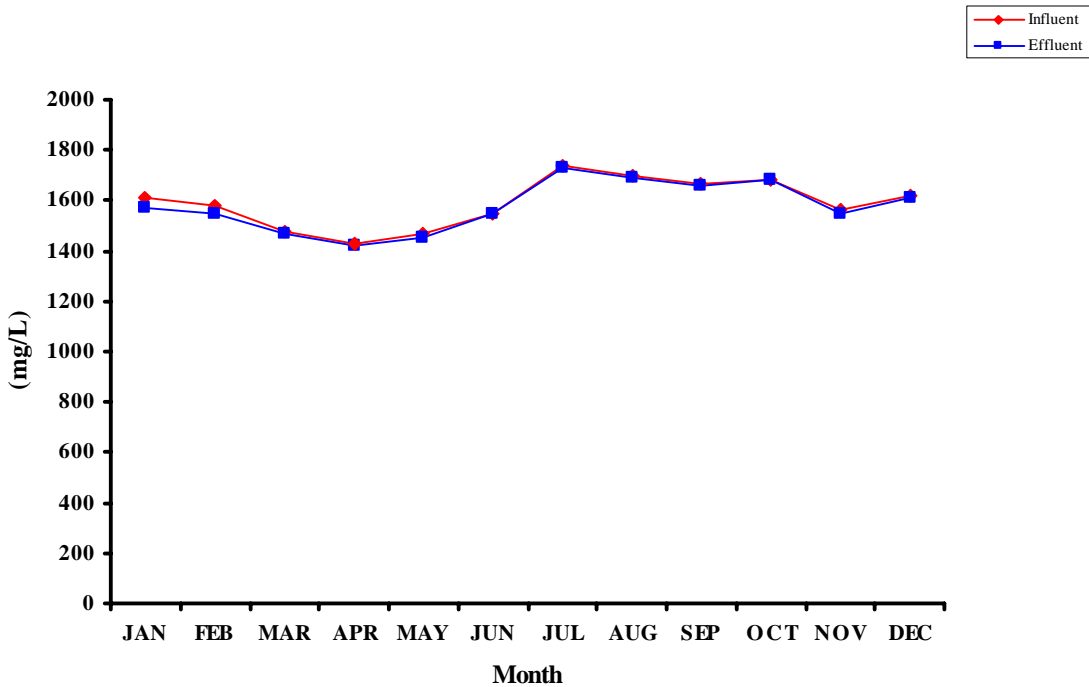
### Temperature (°C) 2003 Monthly Averages



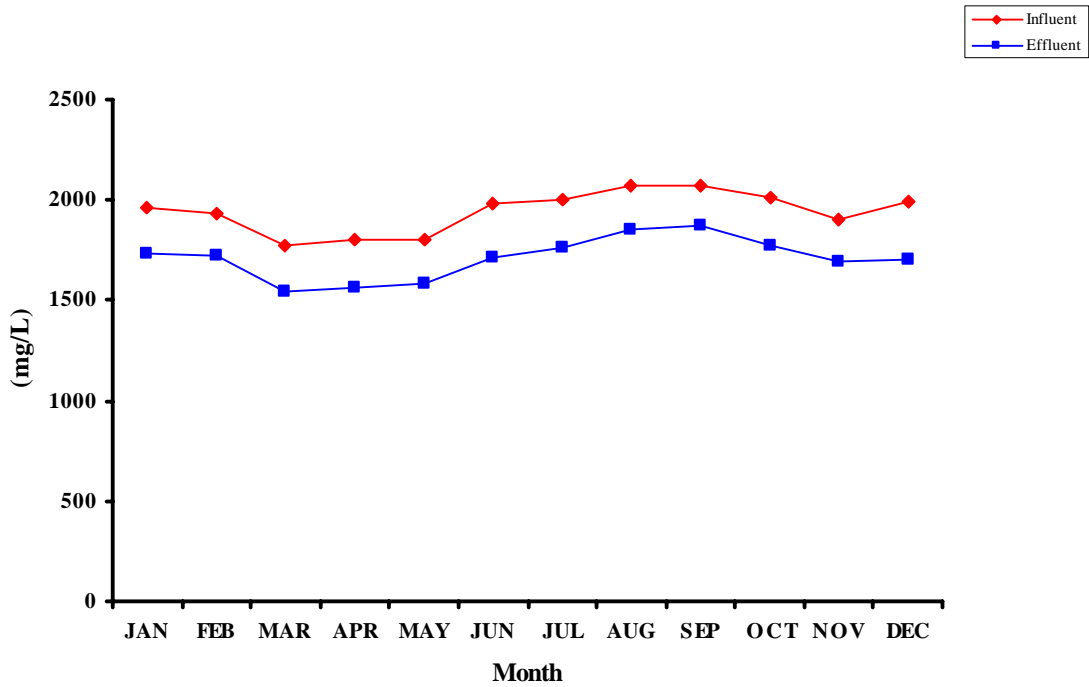
**Conductivity (umhos/cm)  
2003 Monthly Averages**



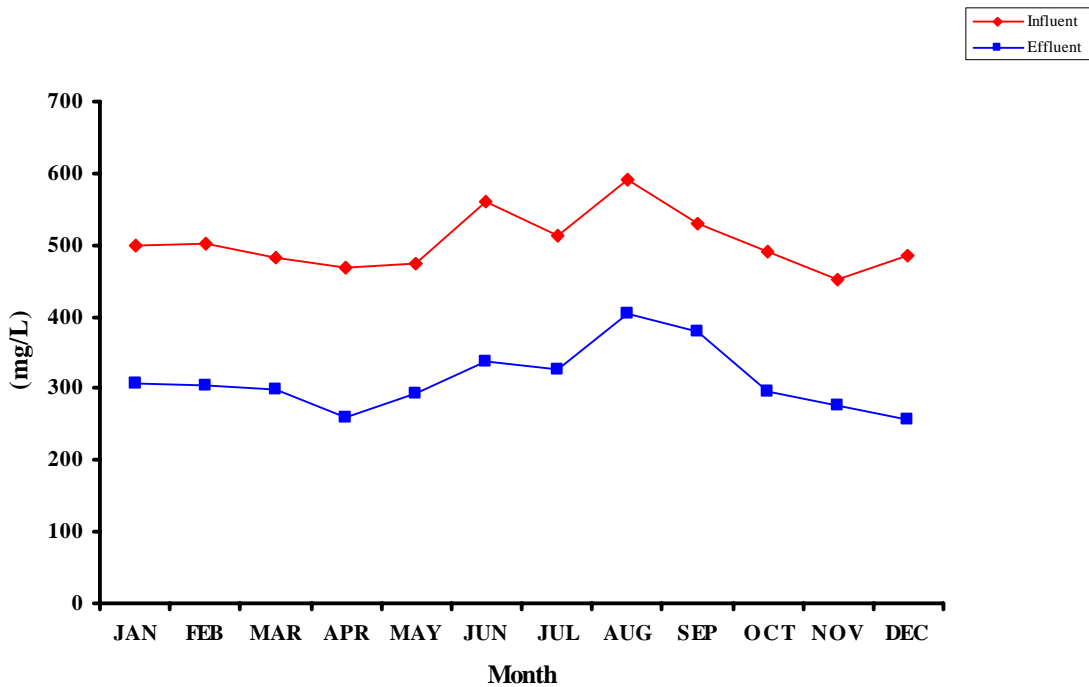
**Total Dissolved Solids (mg/L)  
2003 Monthly Averages**



**Total Solids (mg/L)  
2003 Monthly Averages**

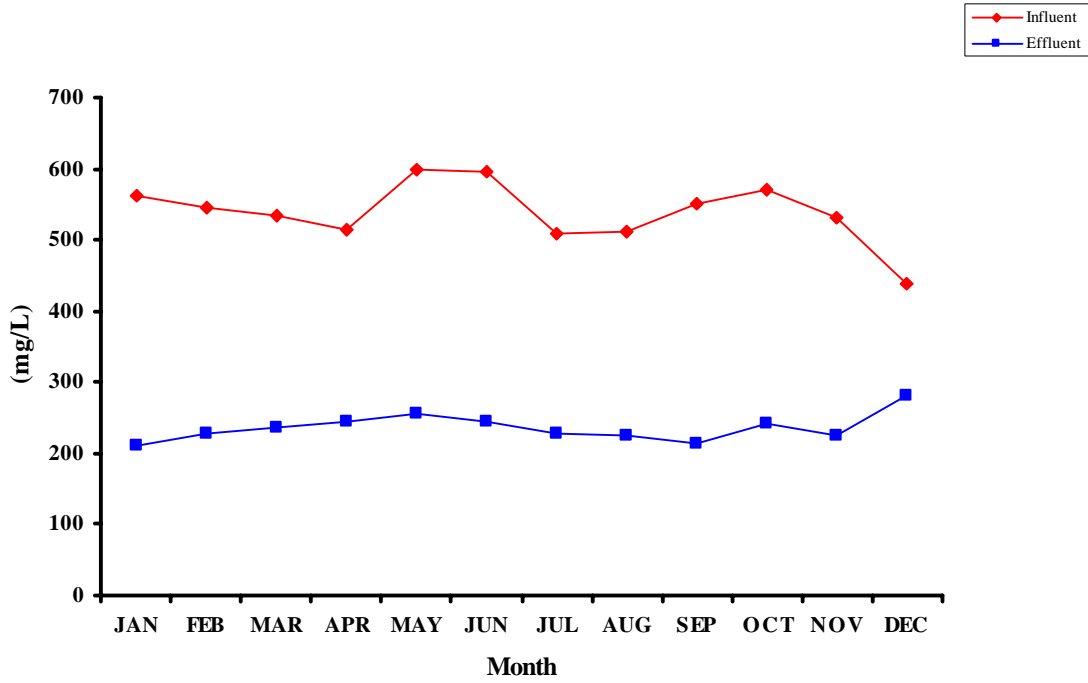


**Total Volatile Solids (mg/L)  
2003 Monthly Averages**

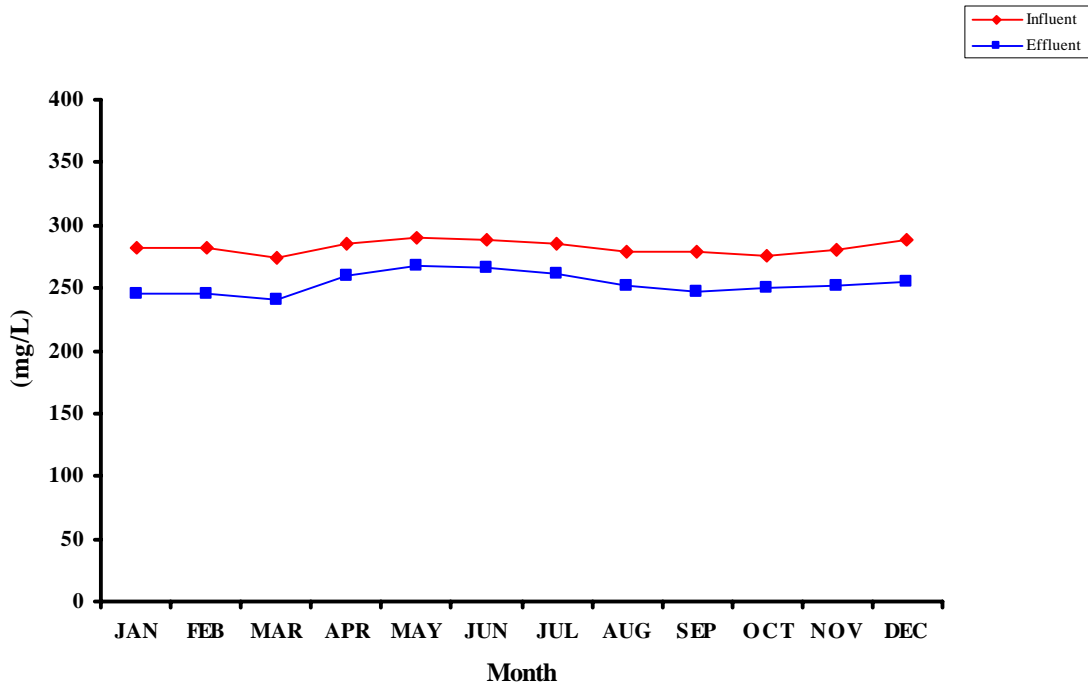




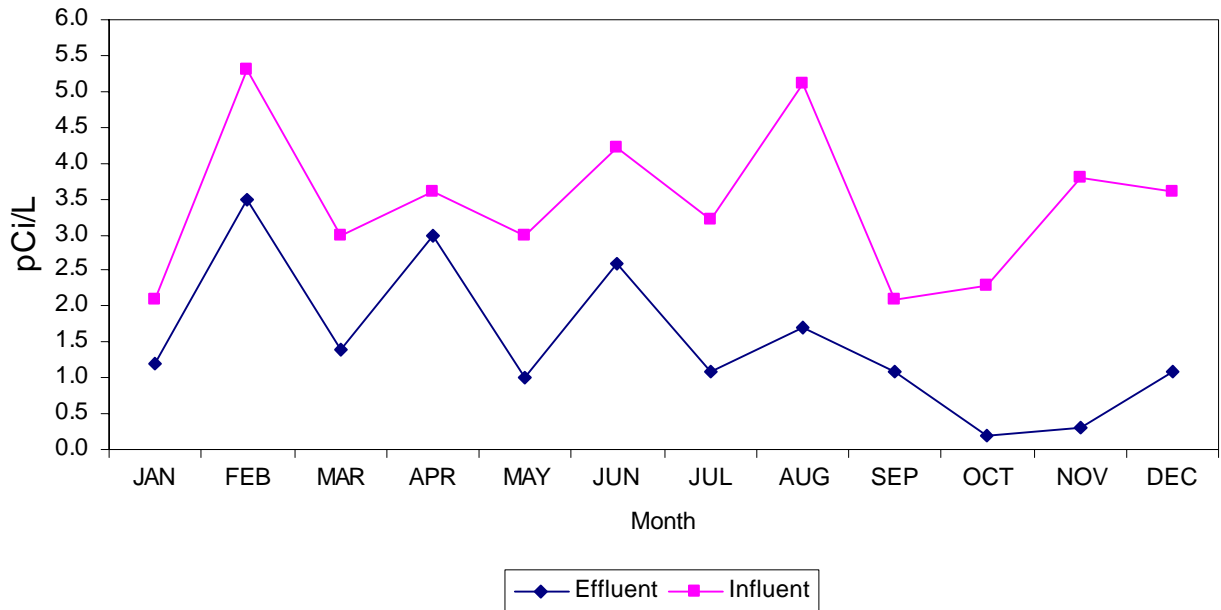
### Chemical Oxygen Demand (mg/L) 2003 Monthly Averages



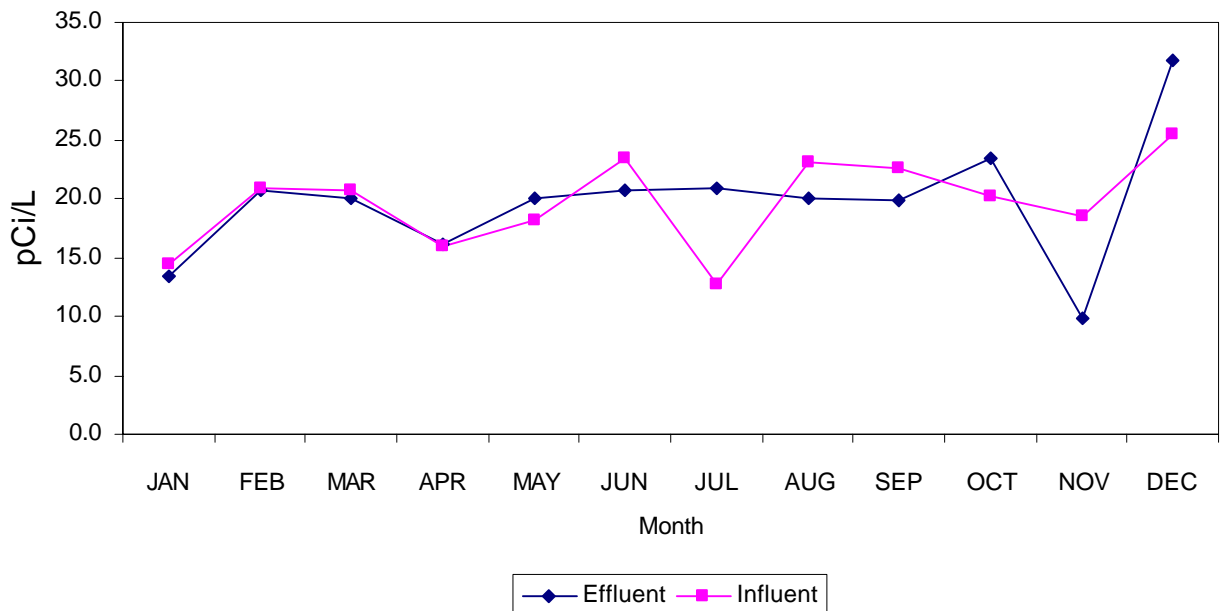
### Alkalinity (mg/L) 2003 Monthly Averages



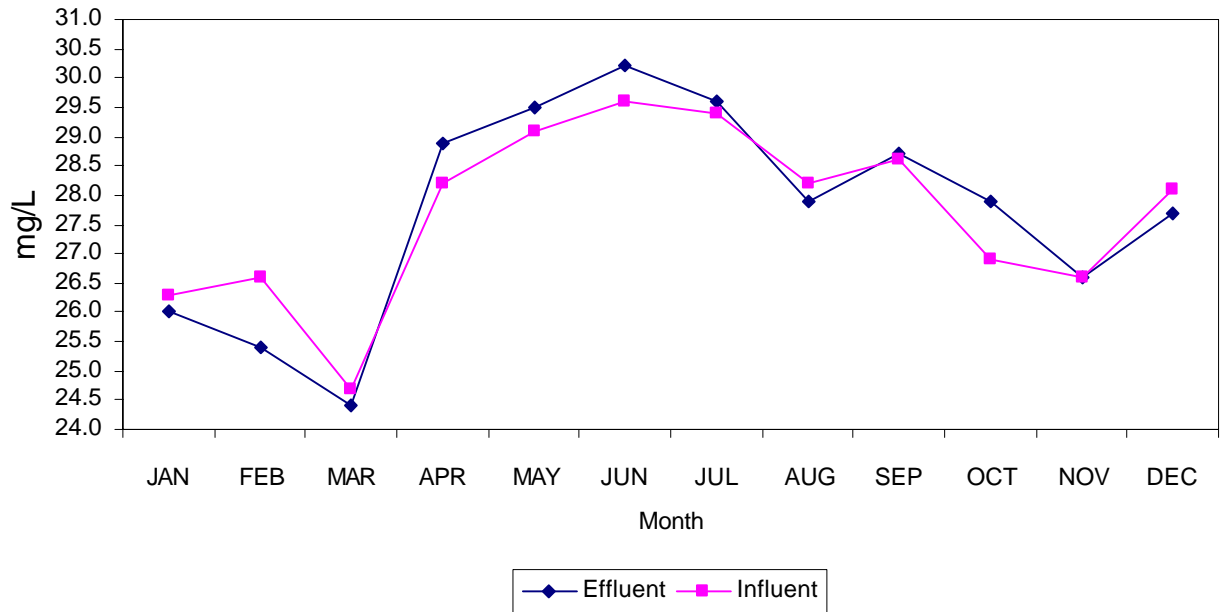
**Point Loma Wastewater Treatment Plant  
2003 Monthly Averages - Alpha Radiation**



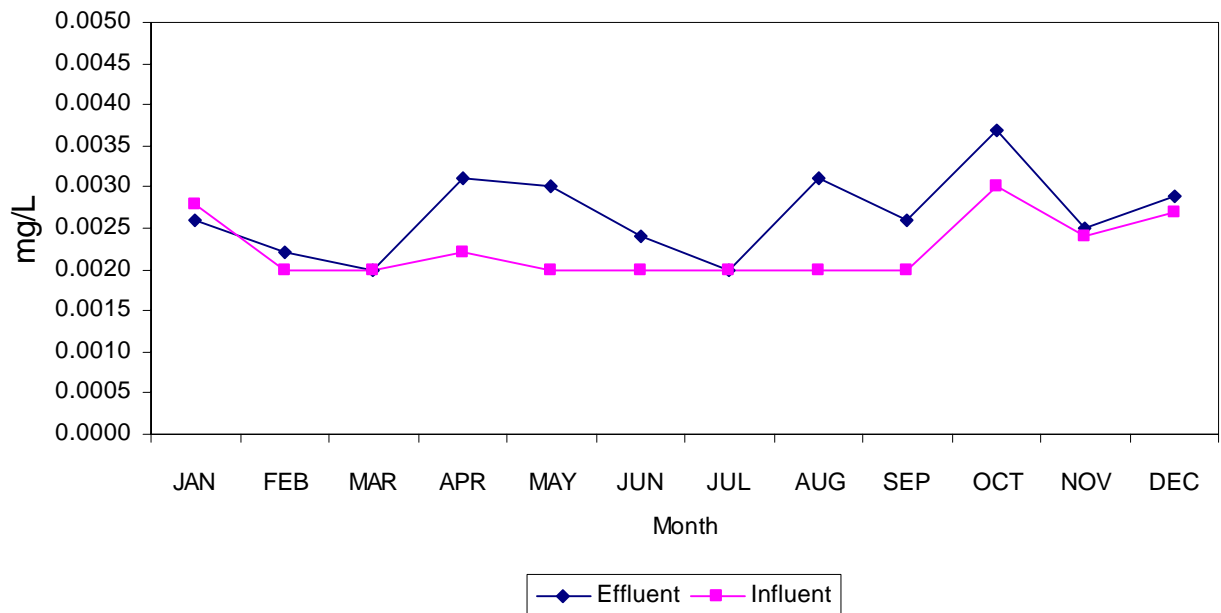
**Point Loma Wastewater Treatment Plant  
2003 Monthly Averages - Beta Radiation**



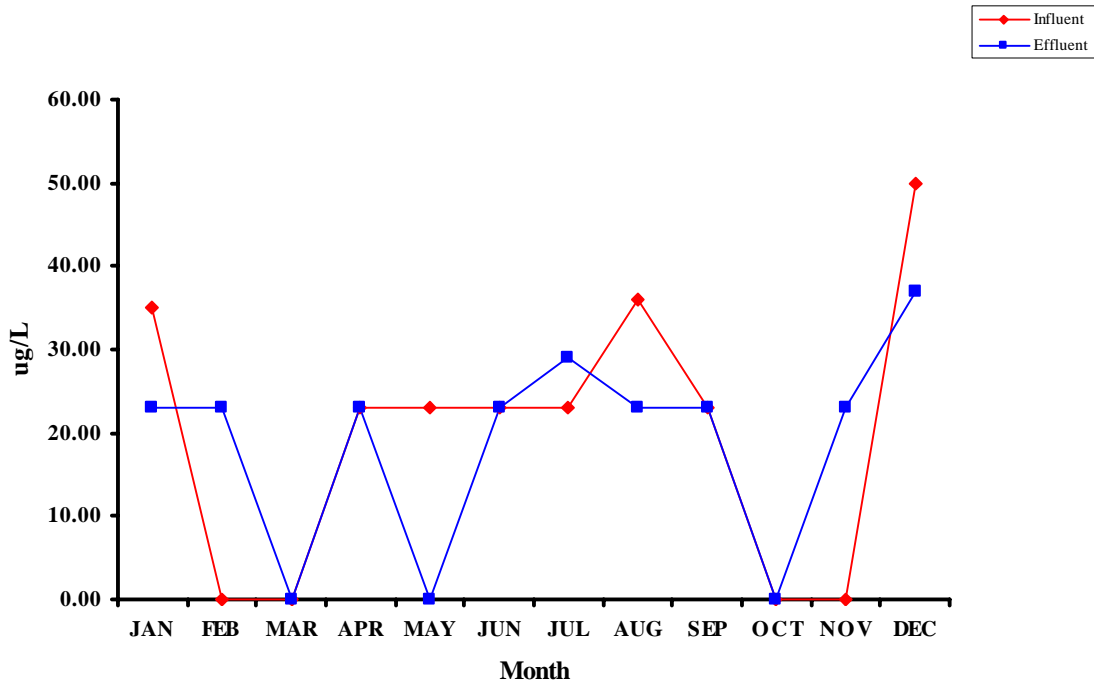
**Point Loma Wastewater Treatment Plant  
2003 Monthly Averages - Ammonia-N**



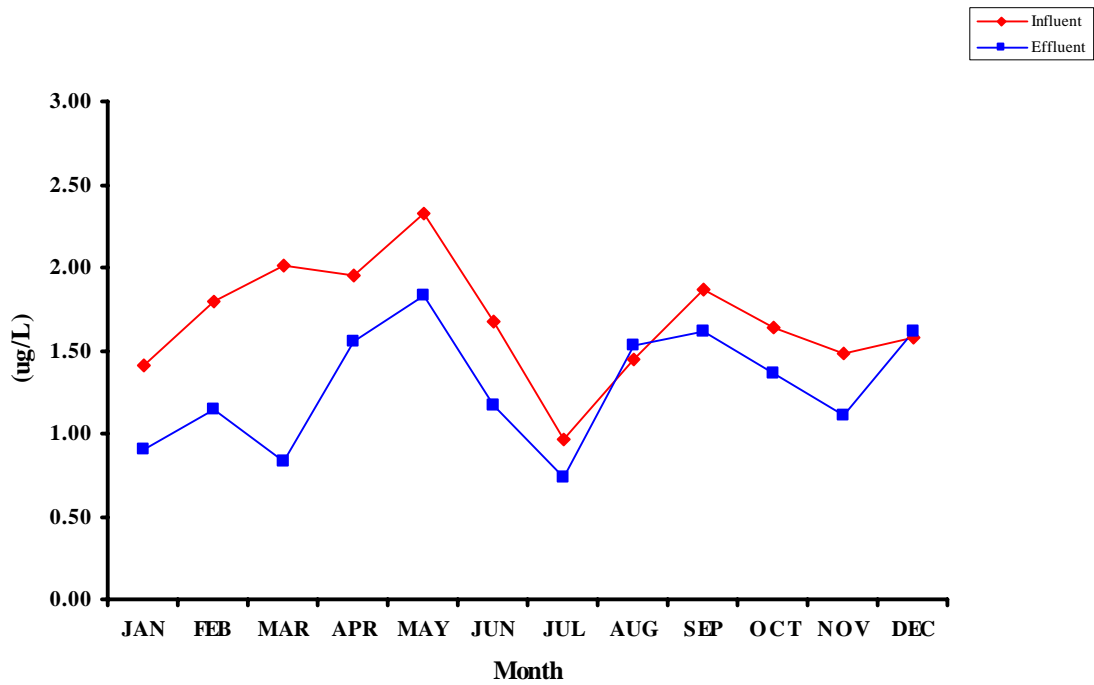
**Point Loma Wastewater Treatment Plant  
2003 Monthly Averages - Total Cyanides**



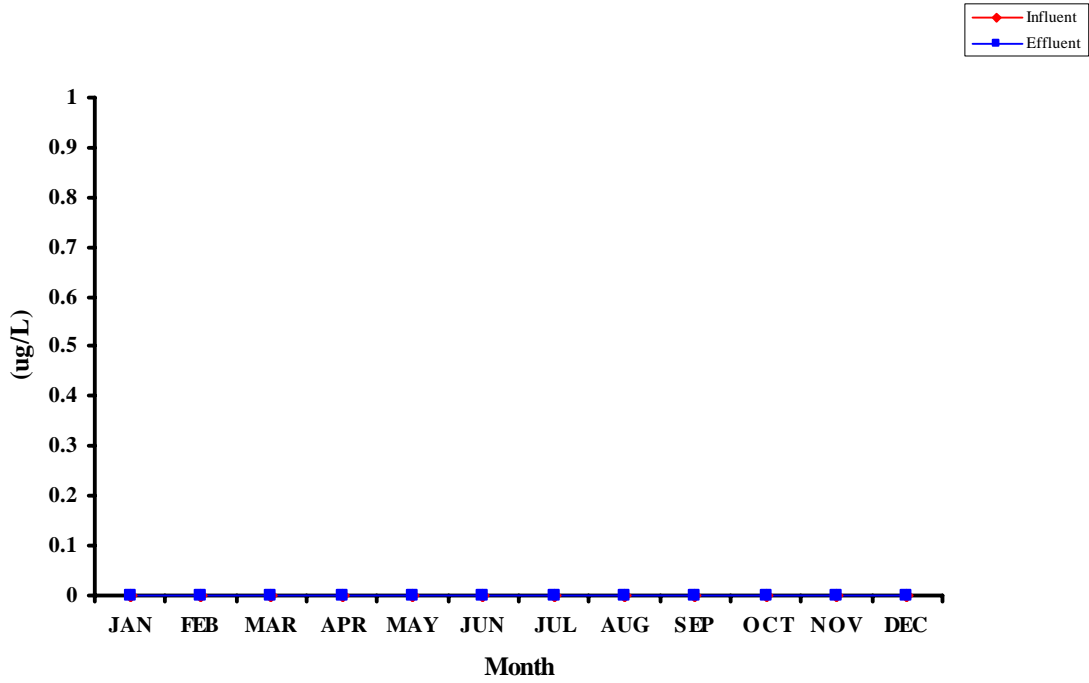
### Antimony 2003 Monthly Averages



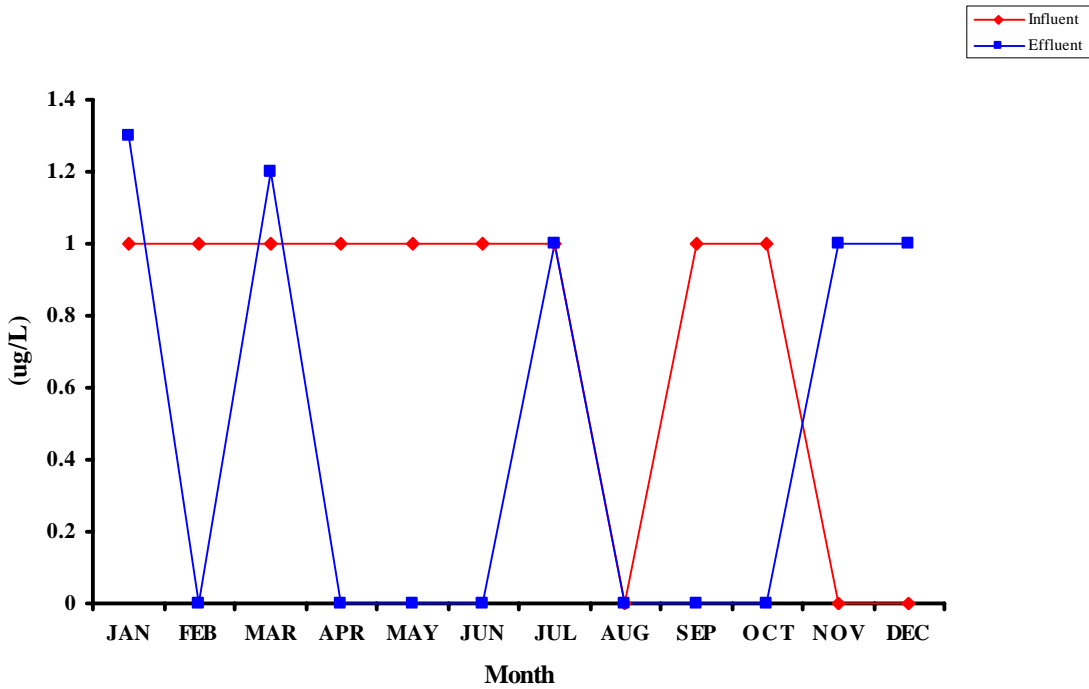
### Arsenic 2003 Monthly Averages



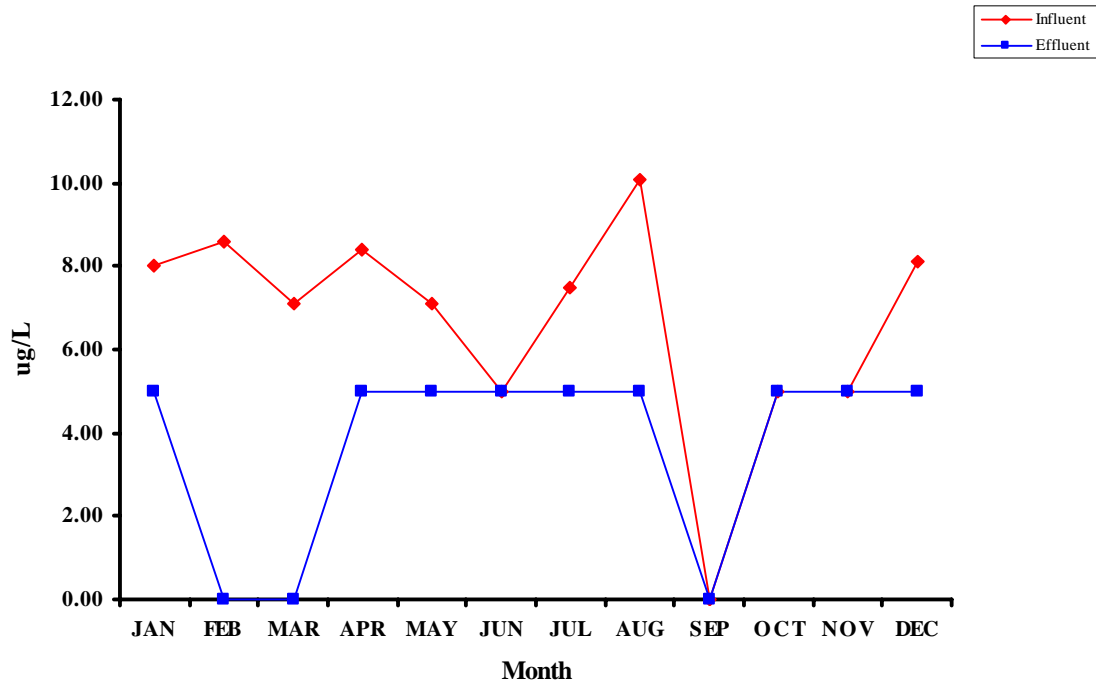
### Beryllium 2003 Monthly Averages



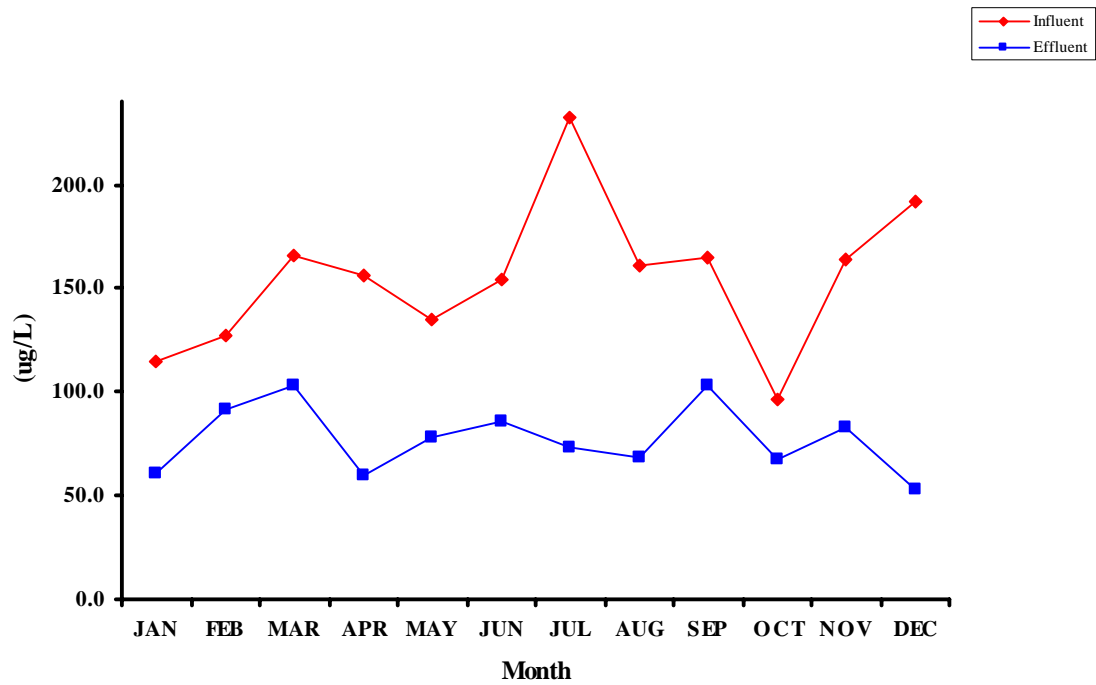
### Cadmium 2003 Monthly Averages



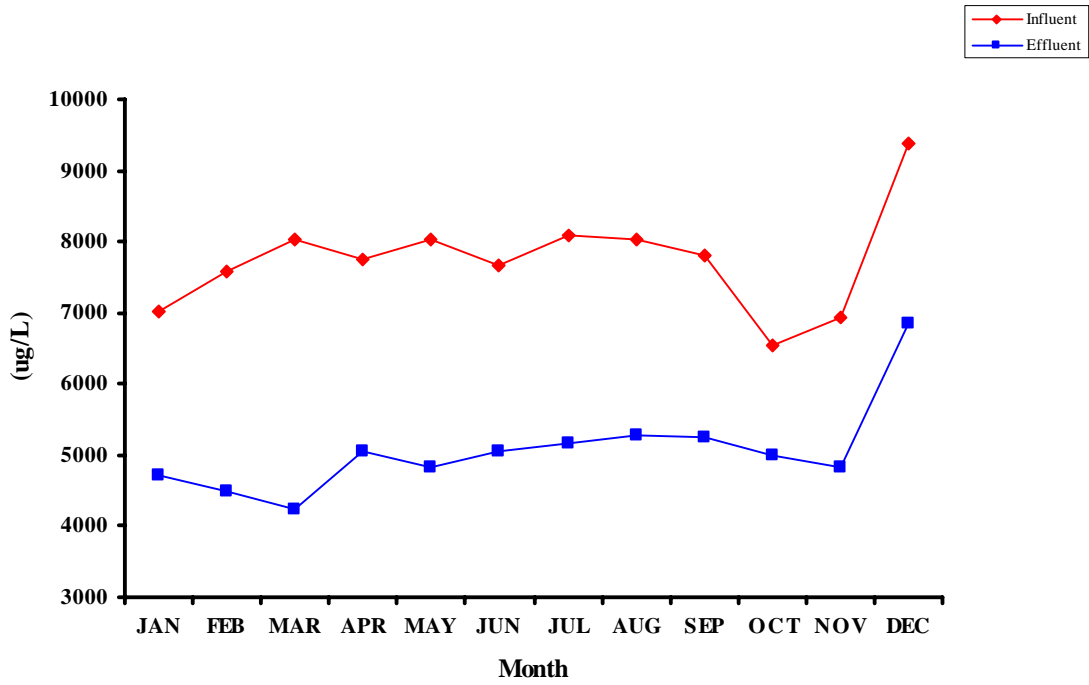
### Chromium 2003 Monthly Averages



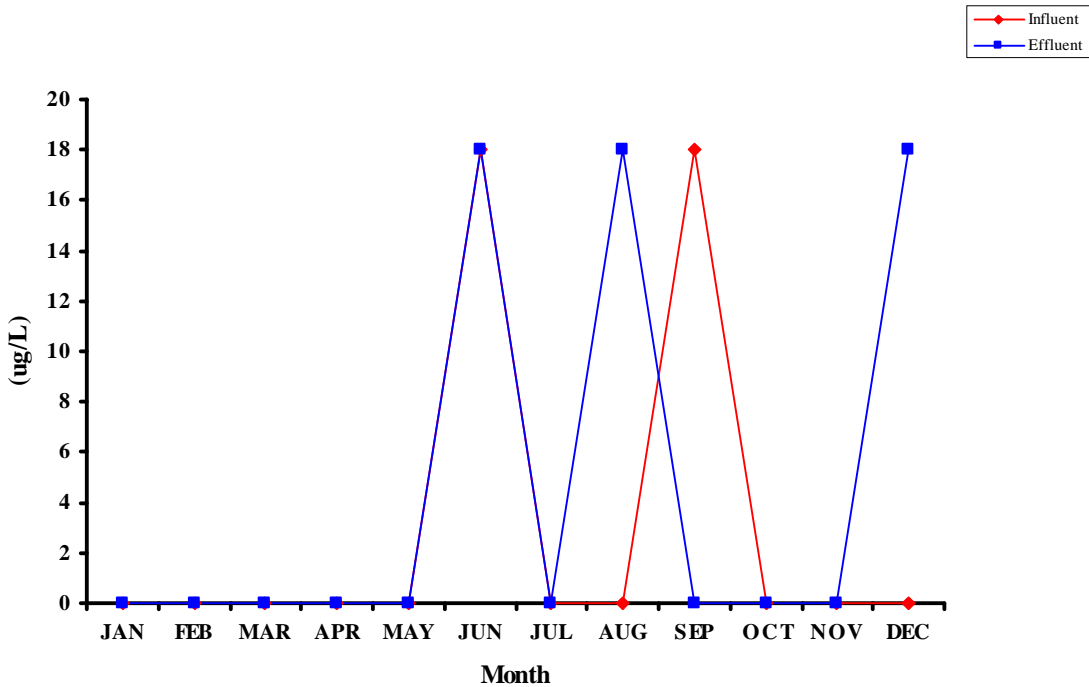
### Copper 2003 Monthly Averages



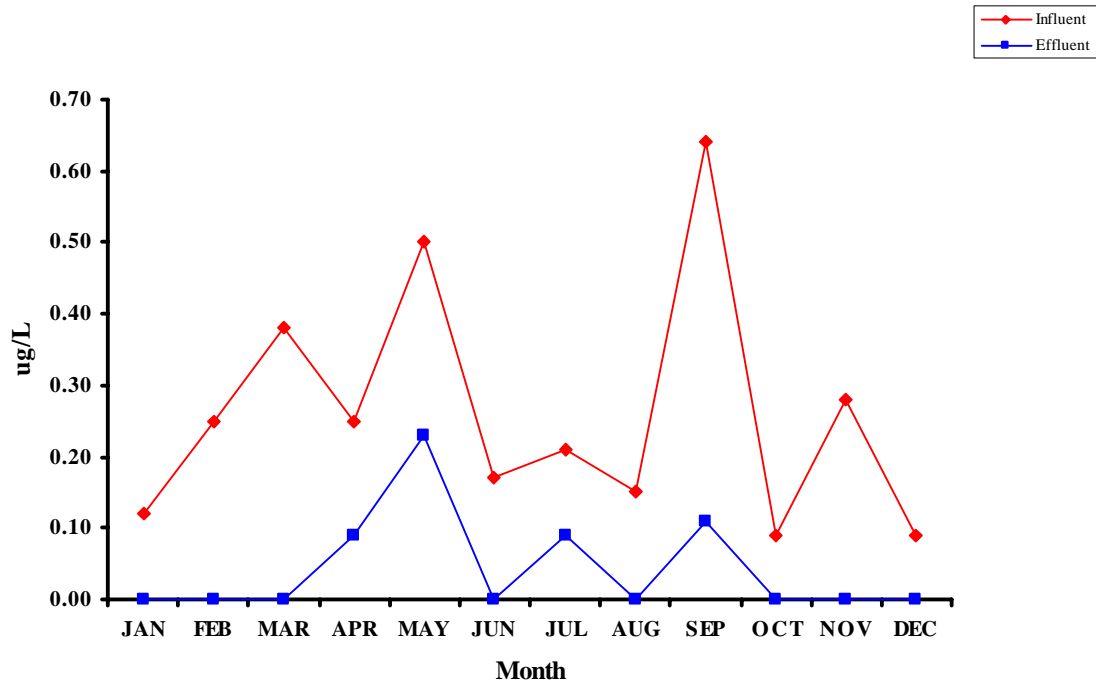
### Iron 2003 Monthly Averages



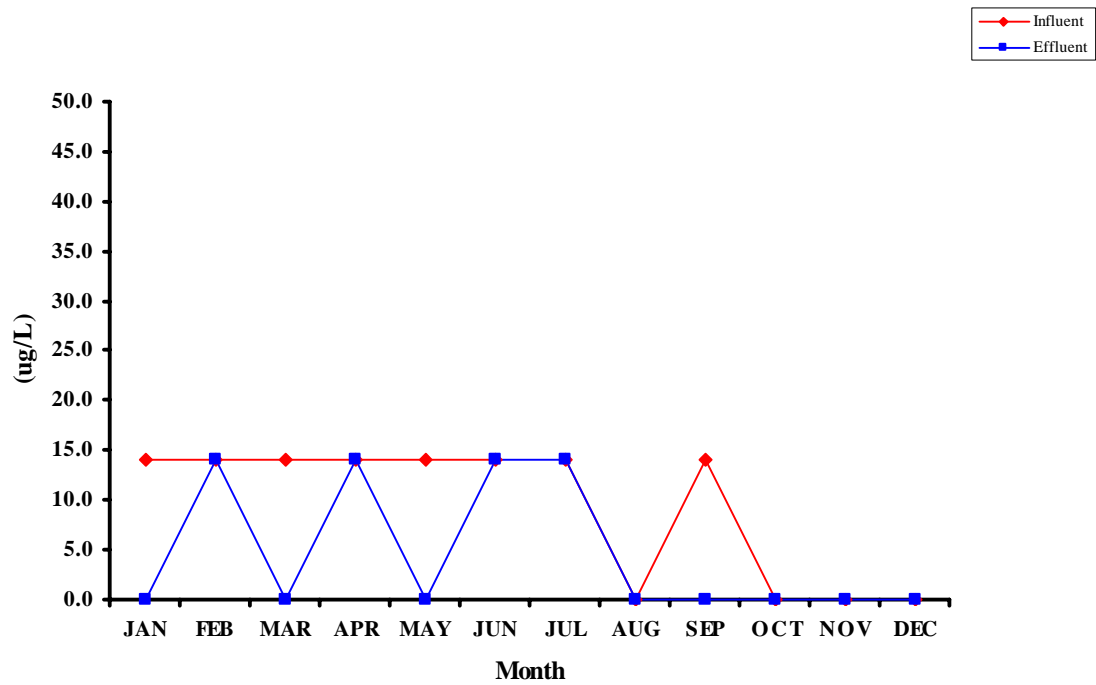
### Lead 2003 Monthly Averages



### Mercury 2003 Monthly Averages

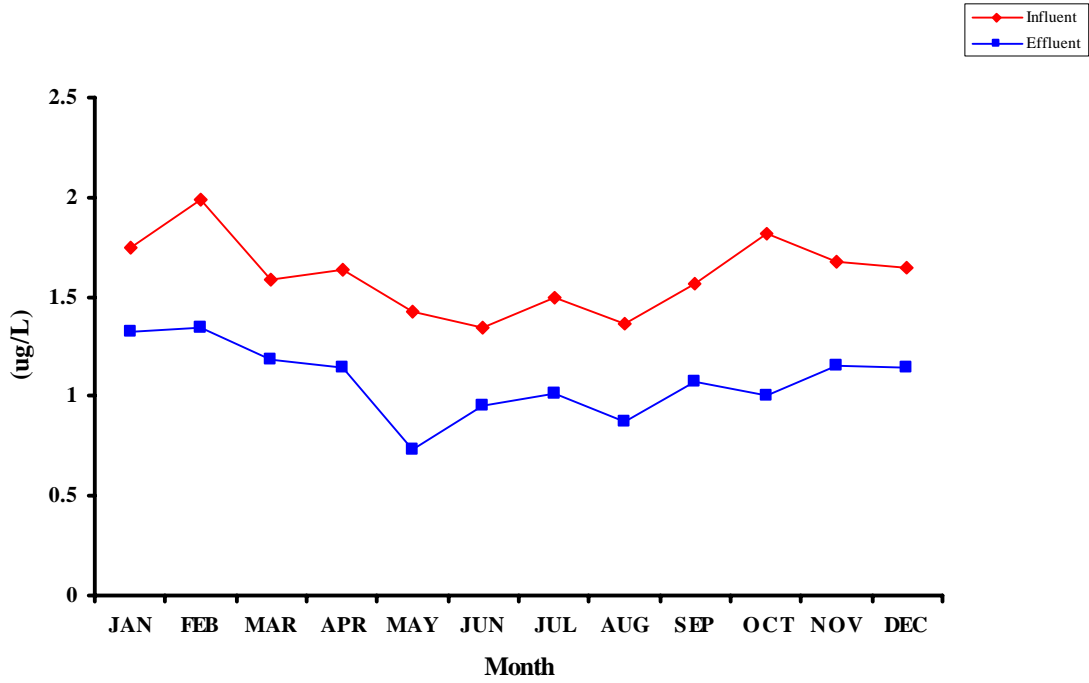


### Nickel 2003 Monthly Averages

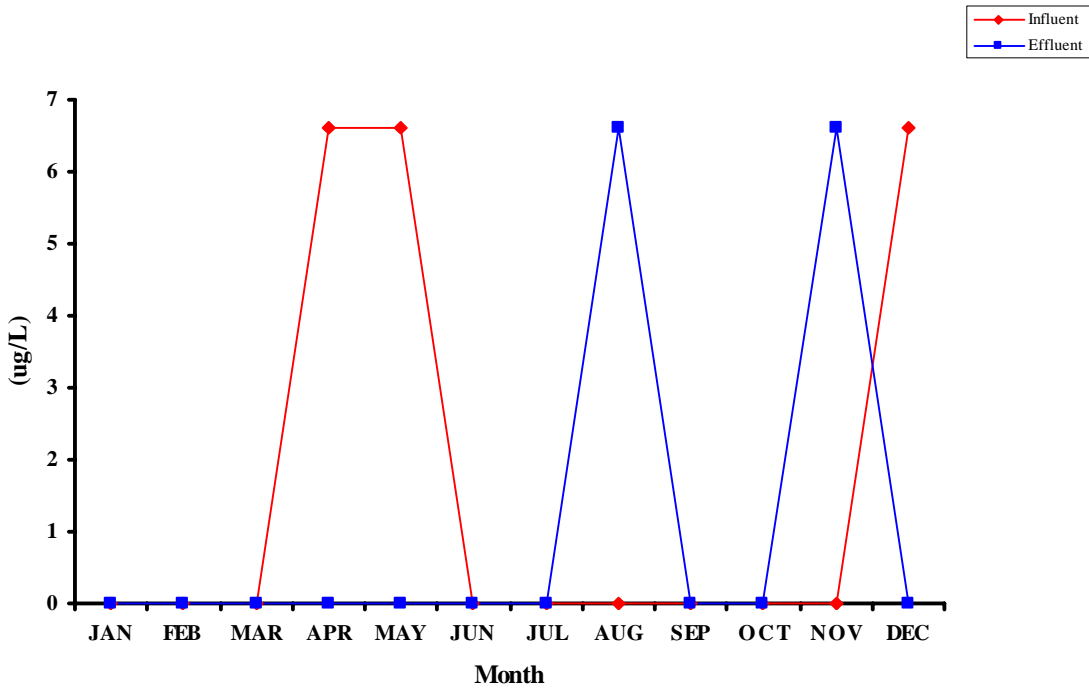




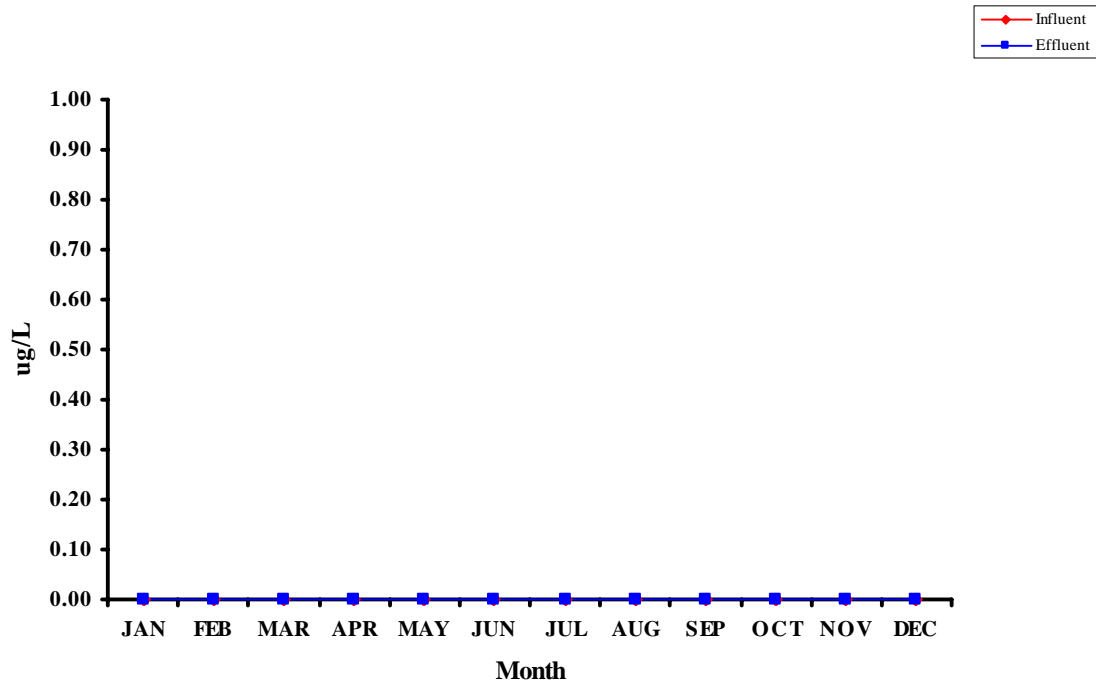
### Selenium 2003 Monthly Averages



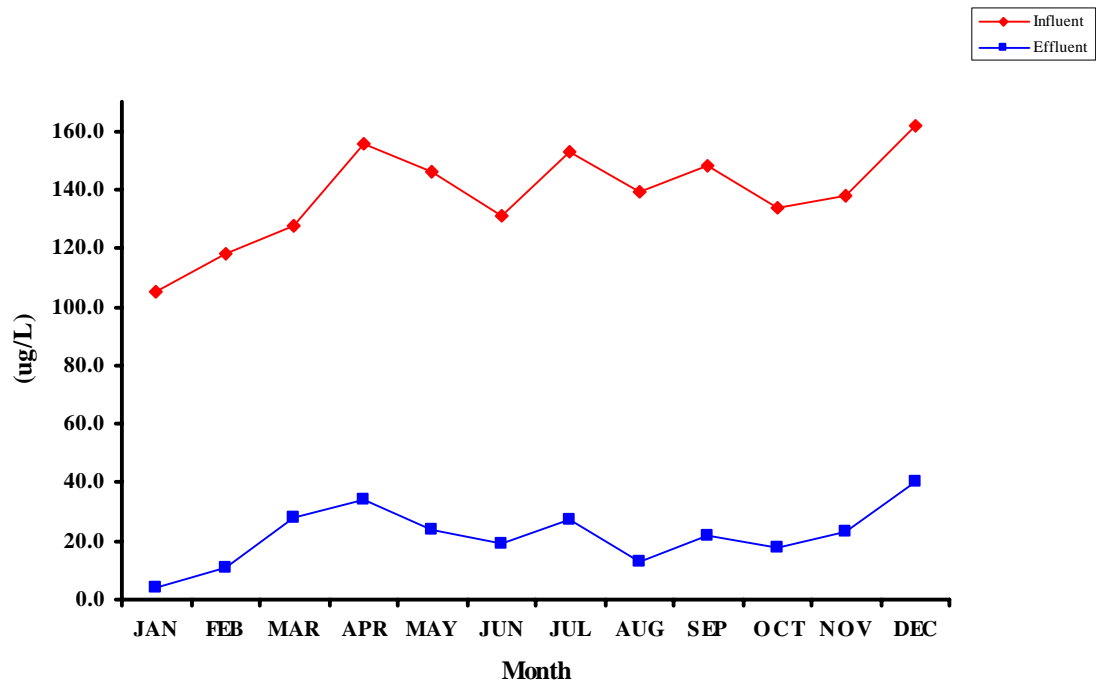
### Silver 2003 Monthly Averages



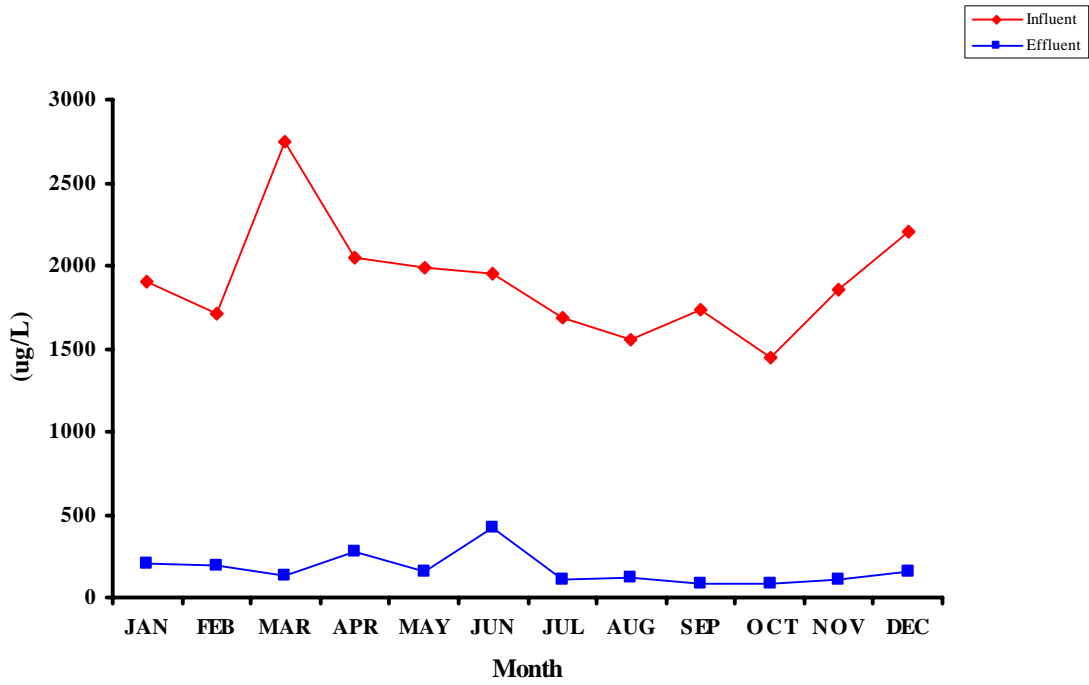
### Thallium 2003 Monthly Averages



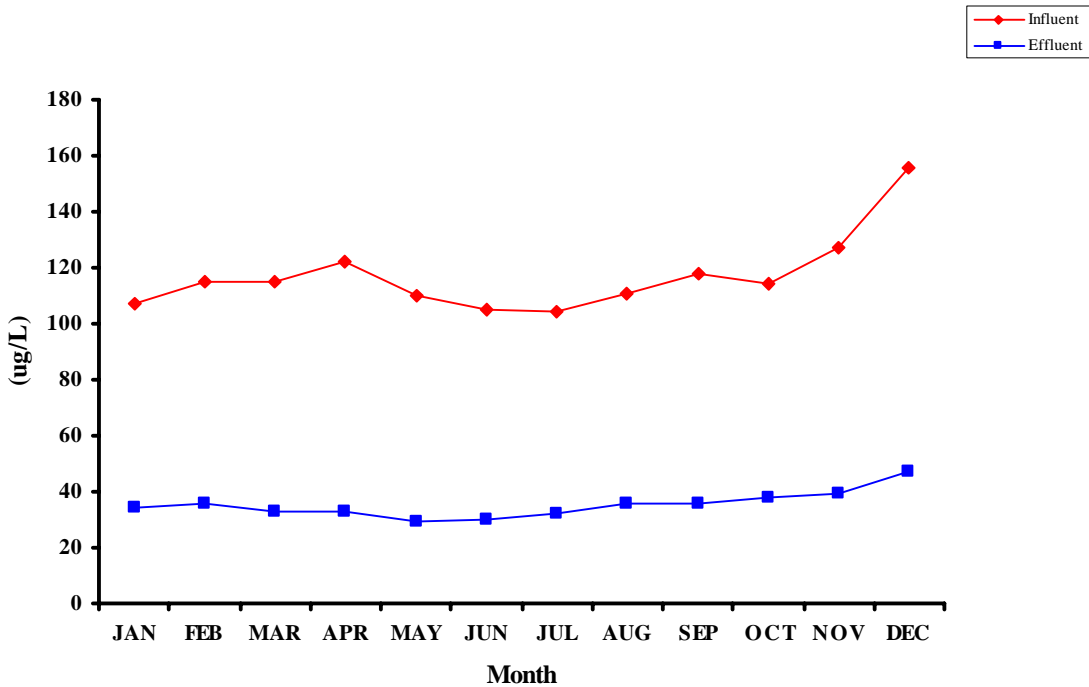
### Zinc 2003 Monthly Averages



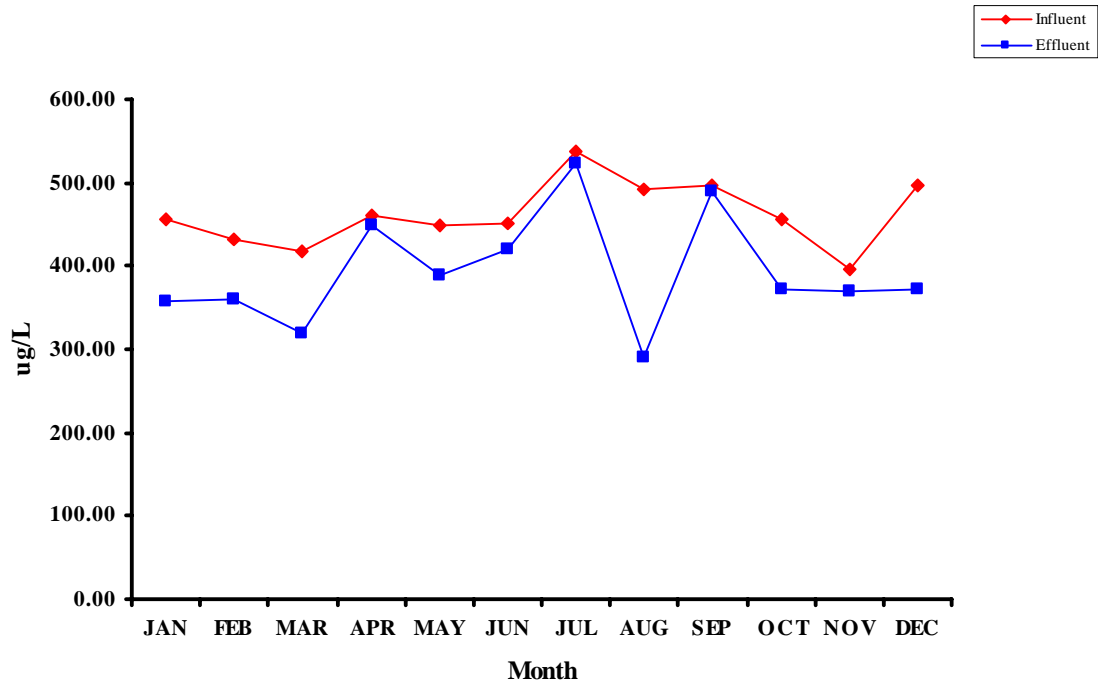
### Aluminum 2003 Monthly Averages



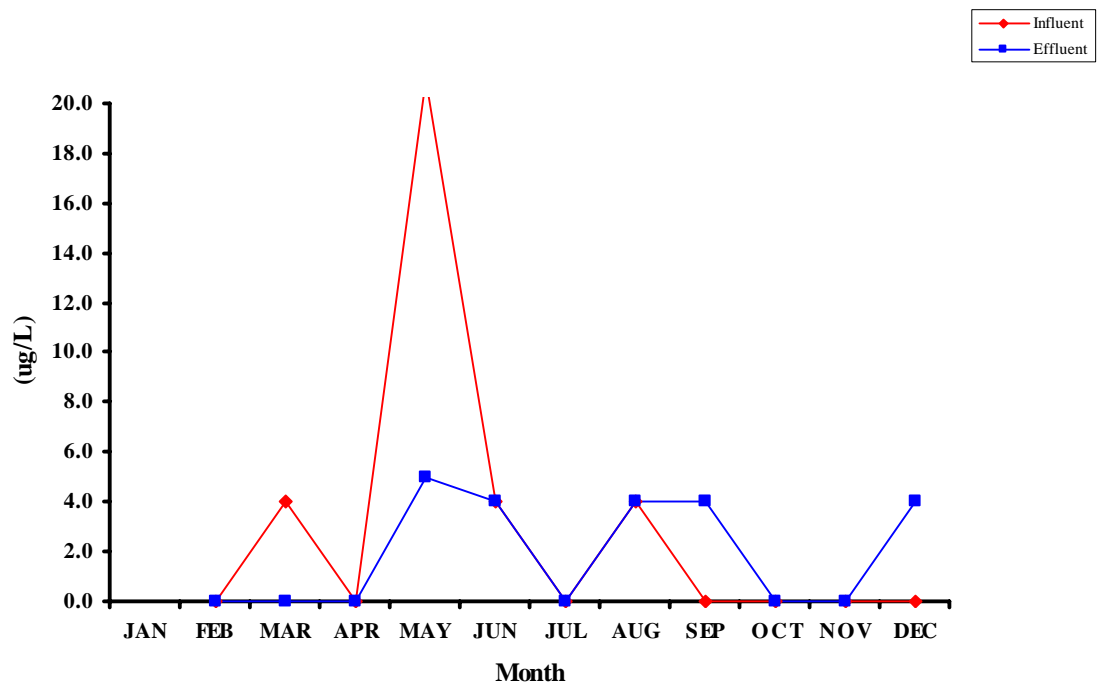
### Barium 2003 Monthly Averages



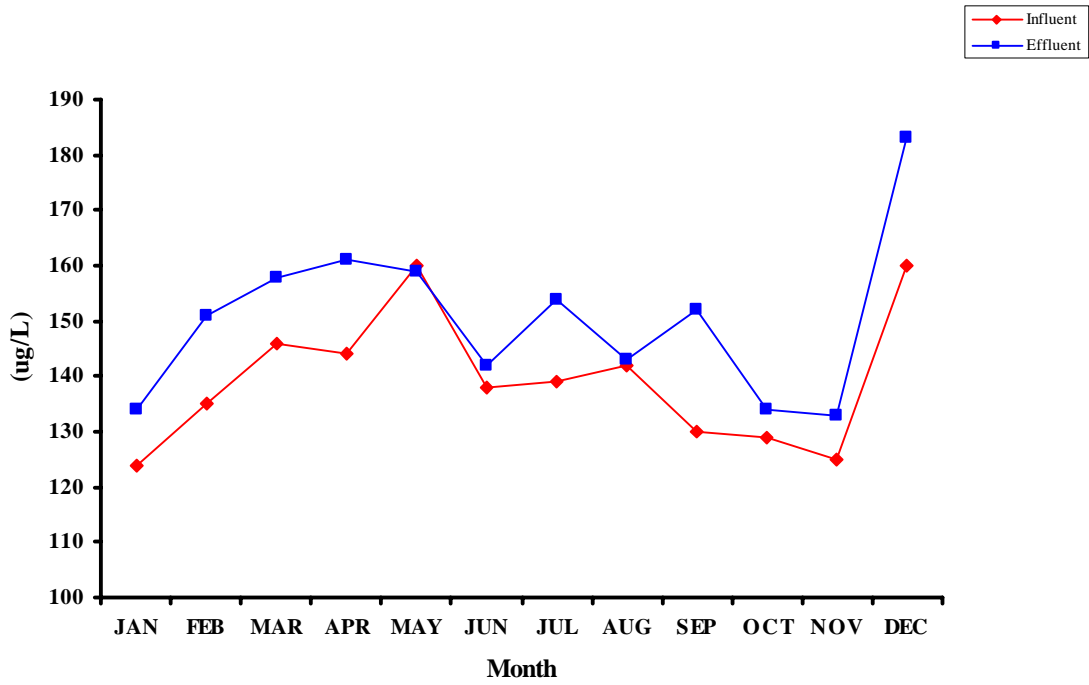
### Boron 2003 Monthly Averages



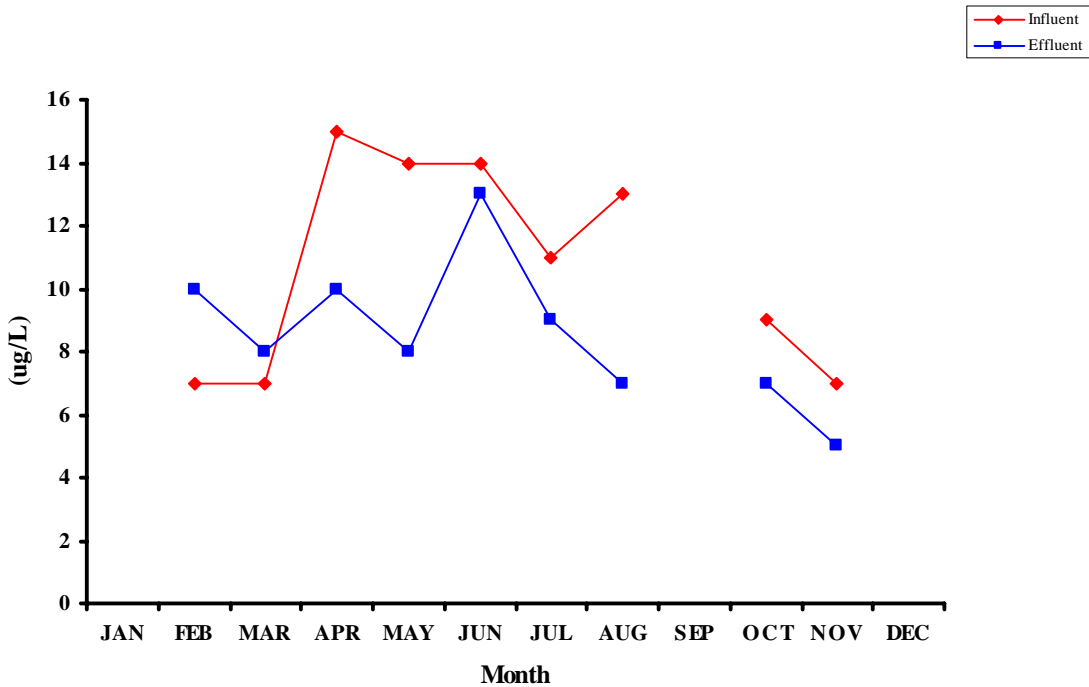
### Colbalt 2003 Monthly Averages



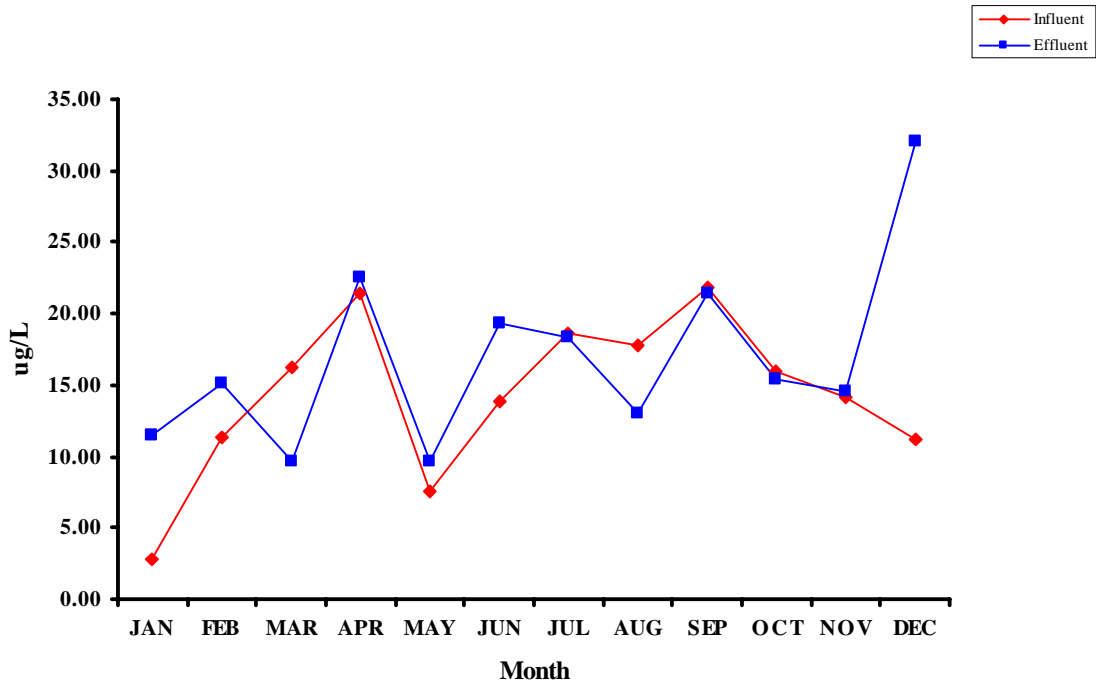
### Manganese 2003 Monthly Averages



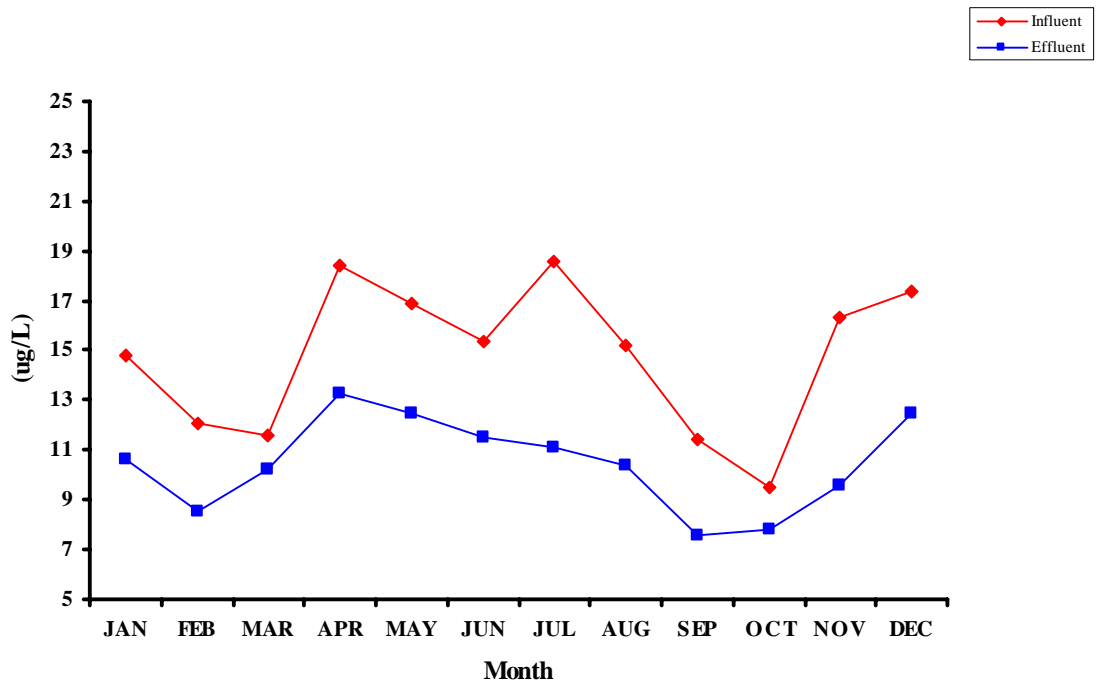
### Molybdeum 2003 Monthly Averages



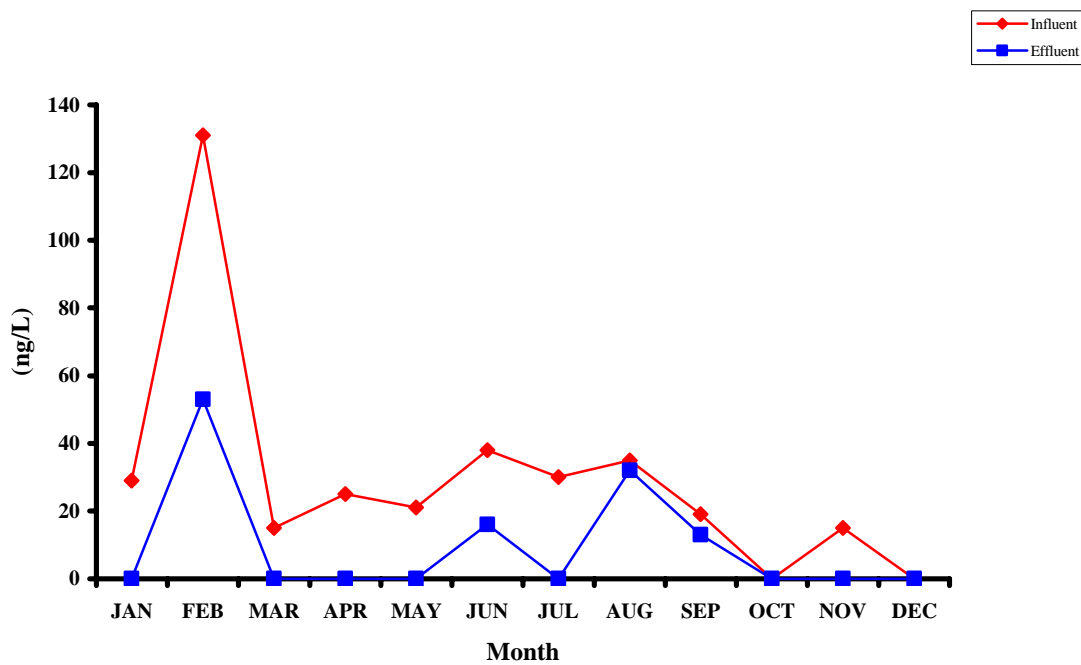
### Purgeables 2003 Monthly Averages



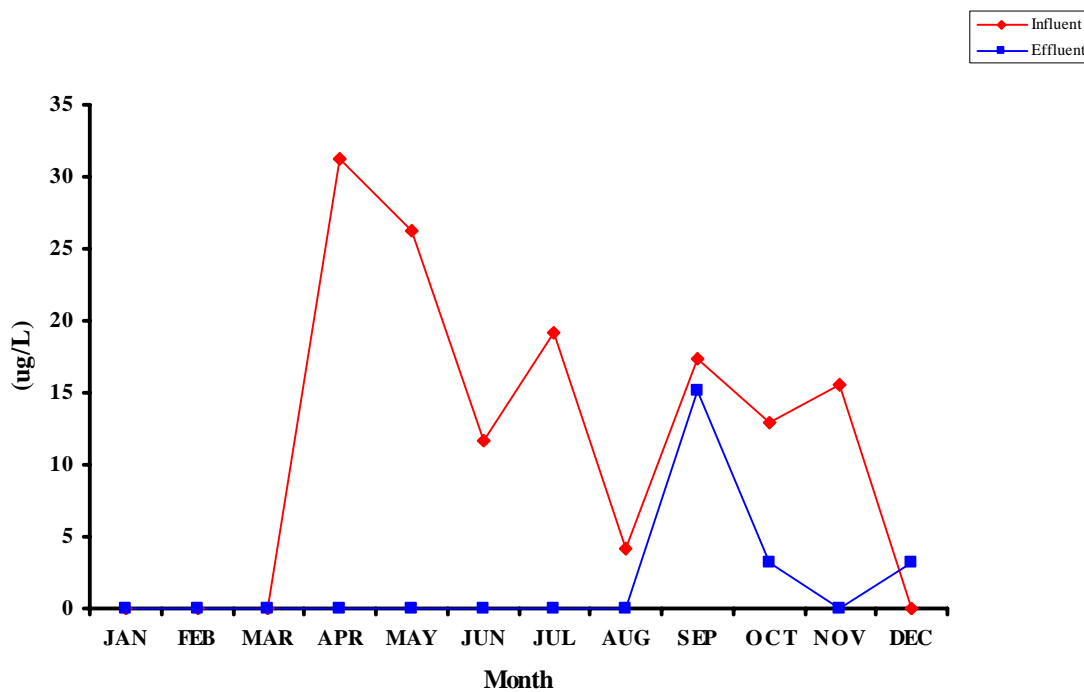
### Phenols 2003 Monthly Averages



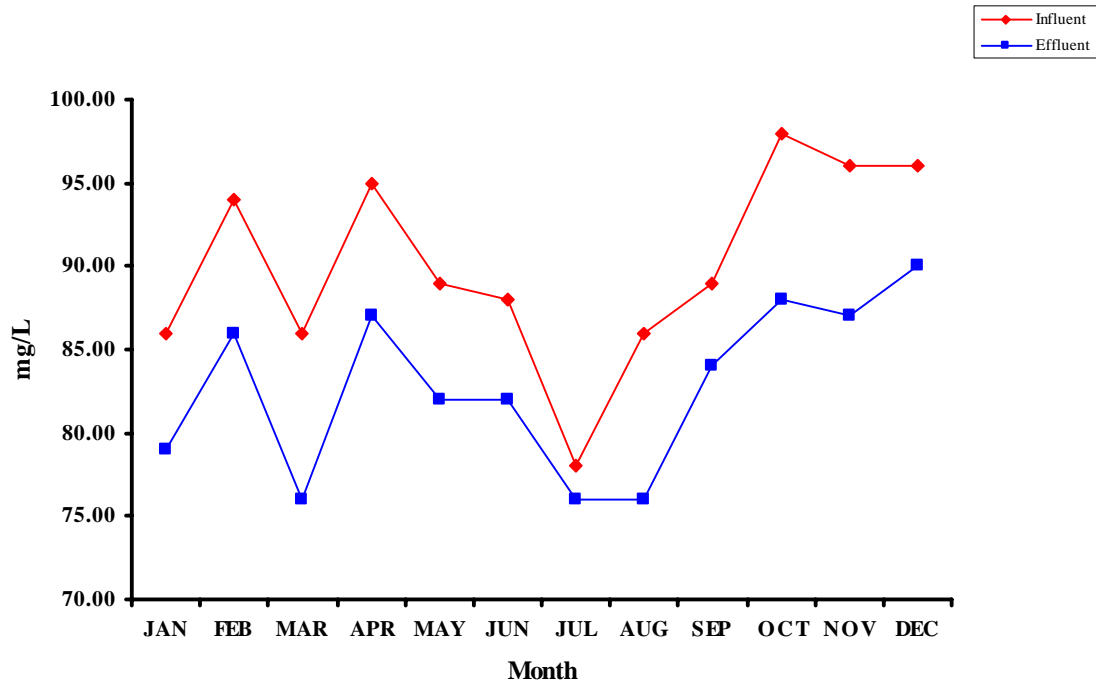
### Total Chlorinated Hydrocarbons 2003 Monthly Averages



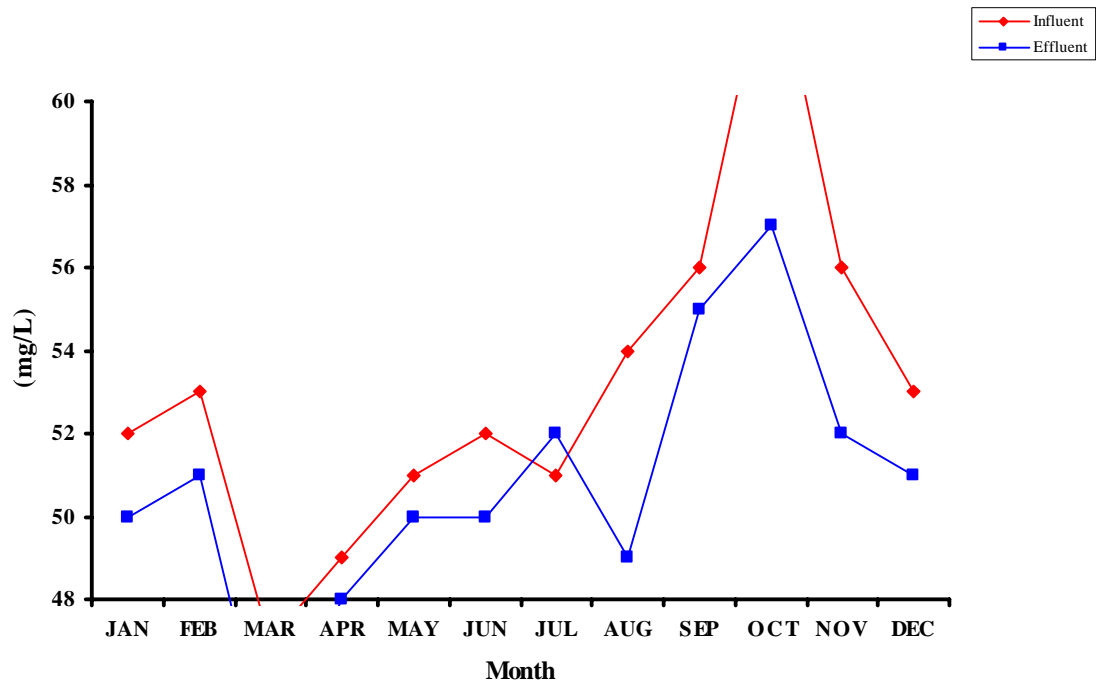
### Base Neutrals 2003 Monthly Averages



### Calcium 2003 Monthly Averages

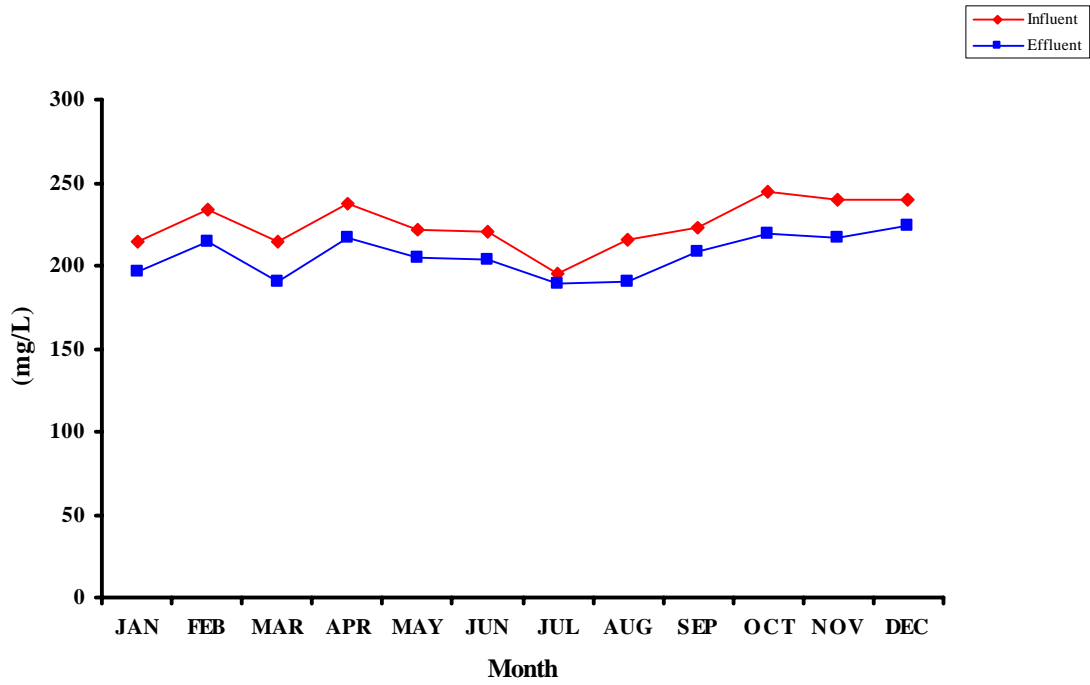


### Magnesium 2003 Monthly Averages

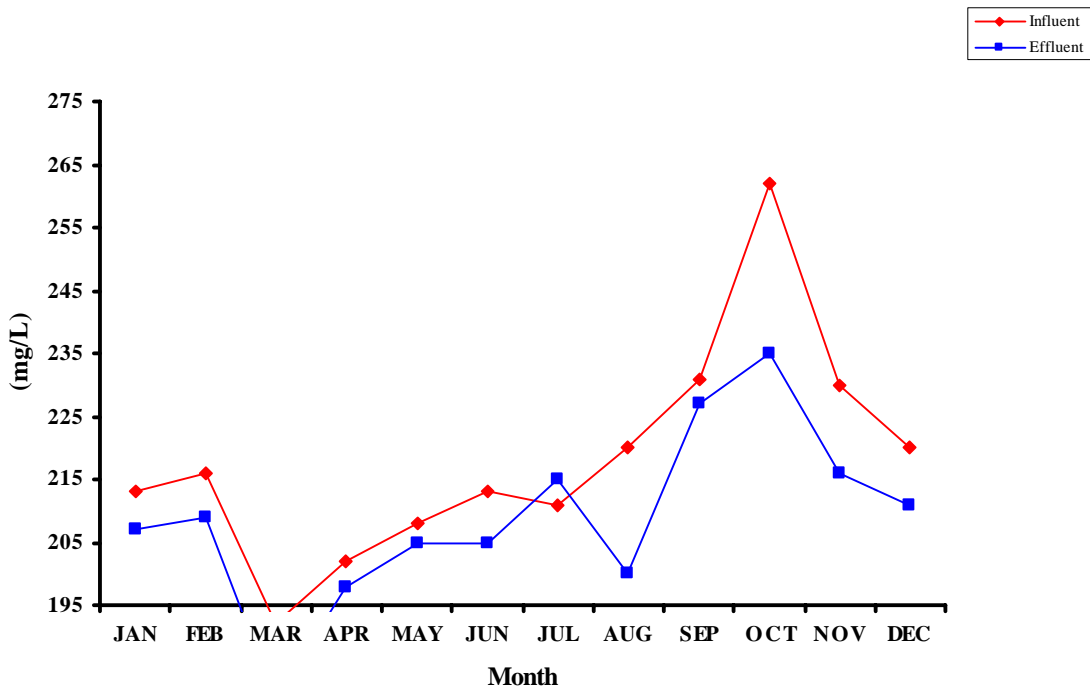




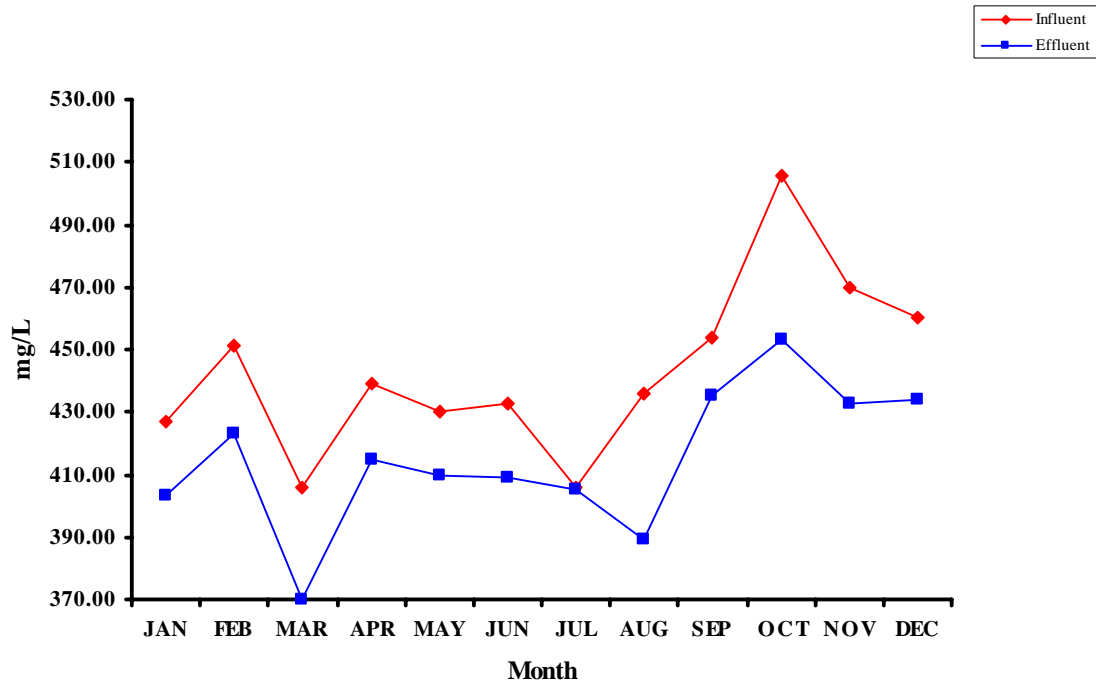
### Calcium Hardness 2003 Monthly Averages



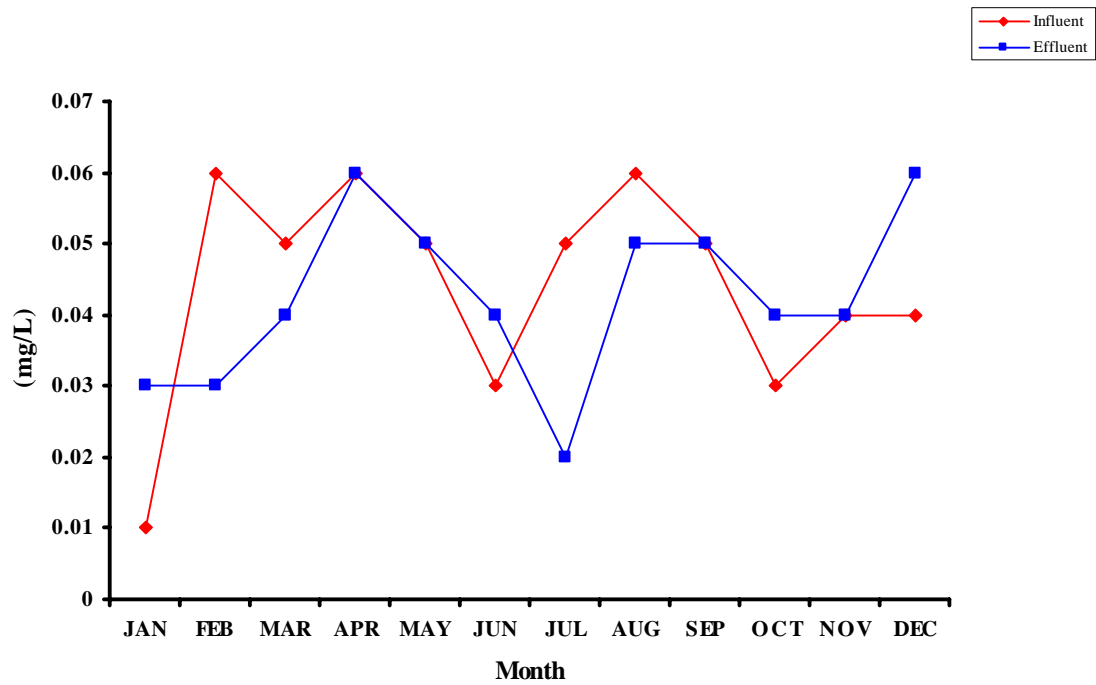
### Magnesium Hardness 2003 Monthly Averages



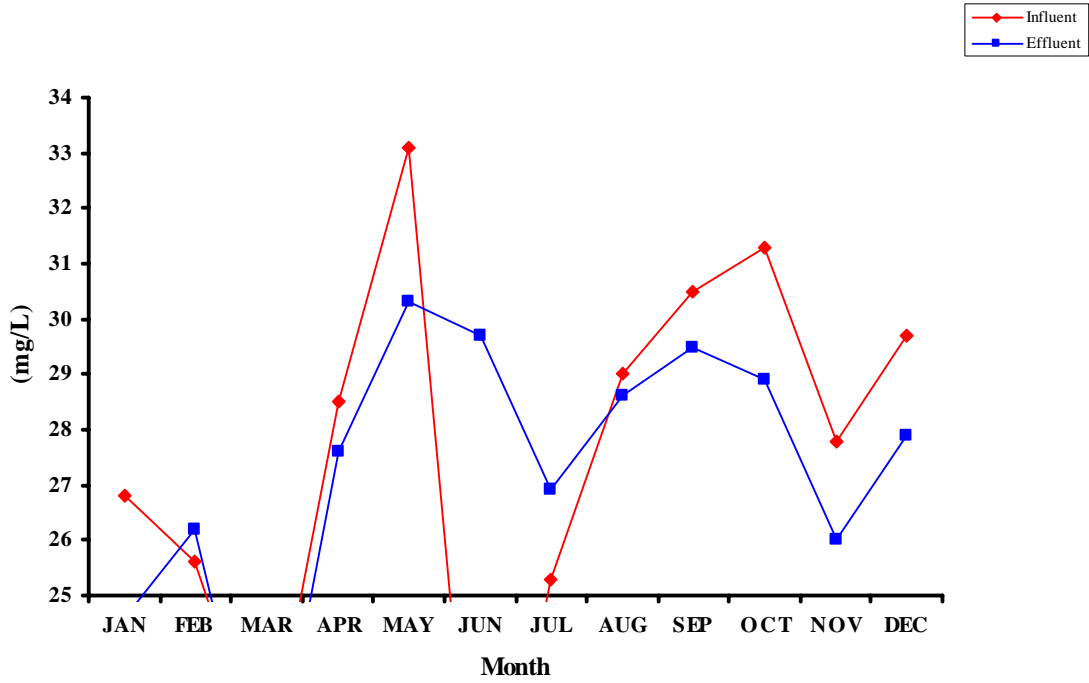
### Total Hardness 2003 Monthly Averages



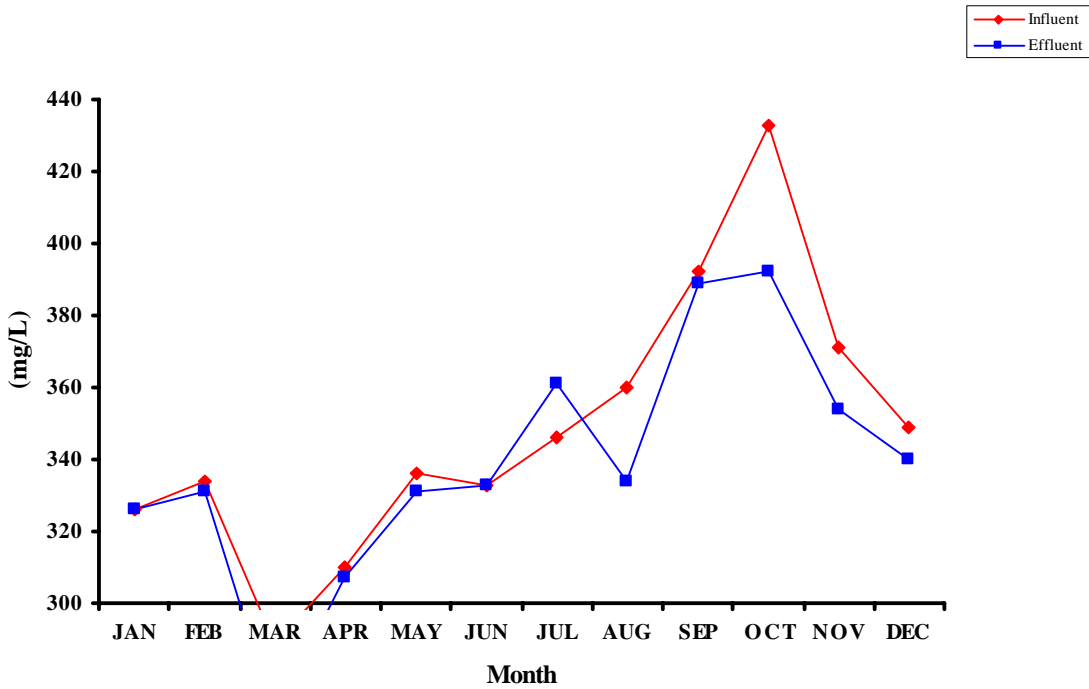
### Lithium 2003 Monthly Averages



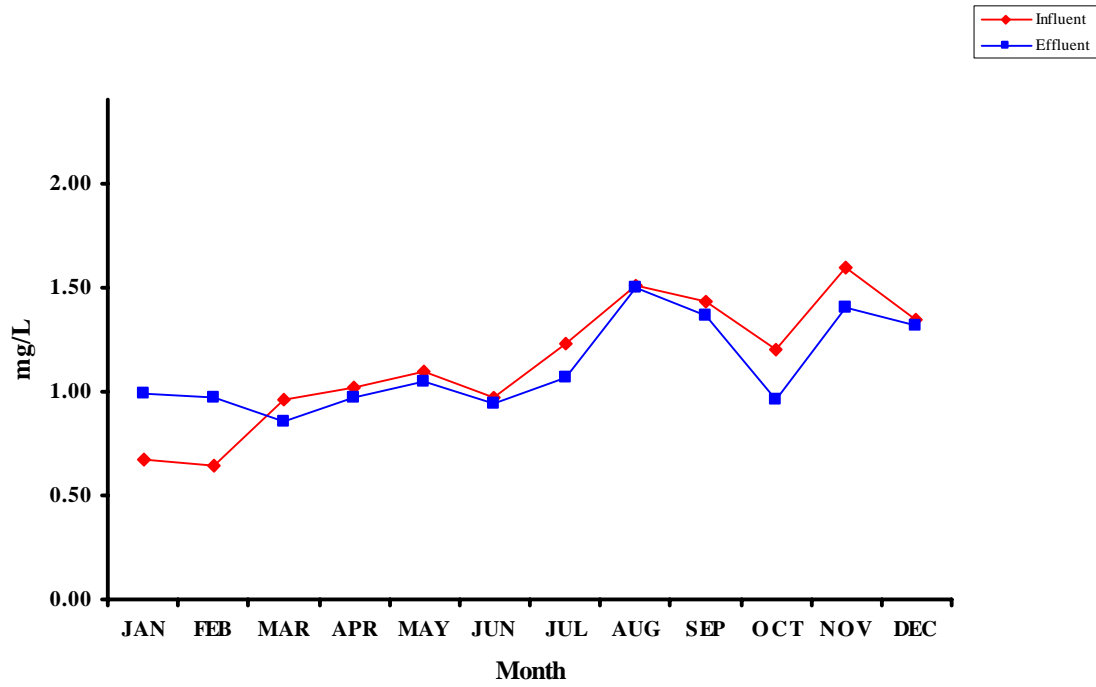
### Potassium 2003 Monthly Averages



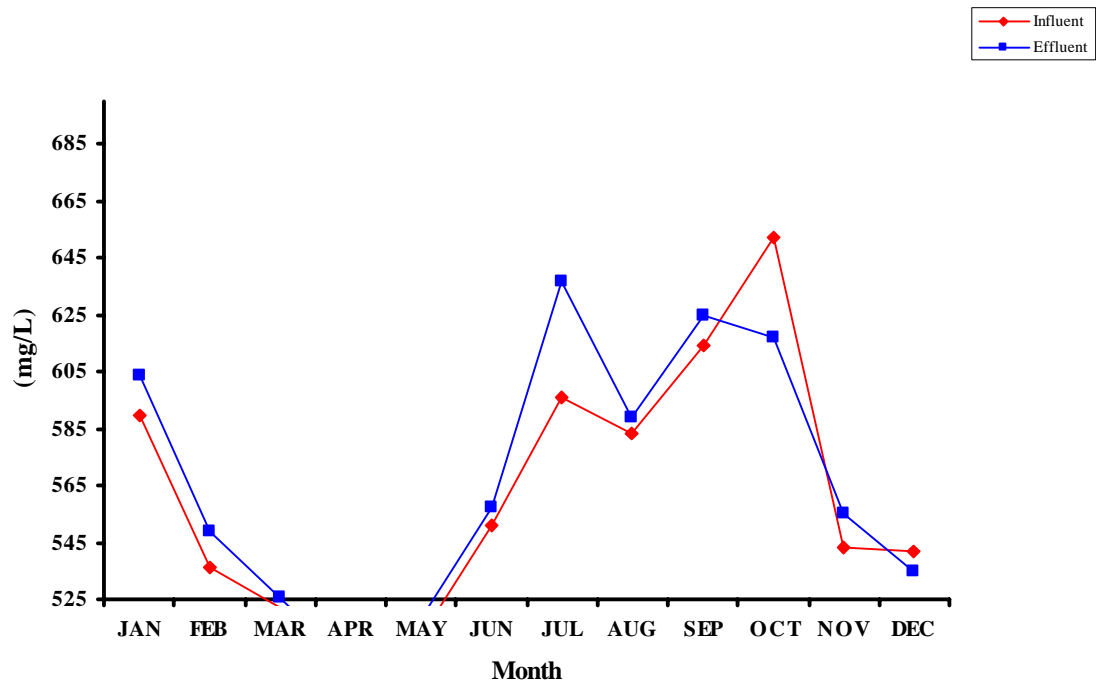
### Sodium 2003 Monthly Averages



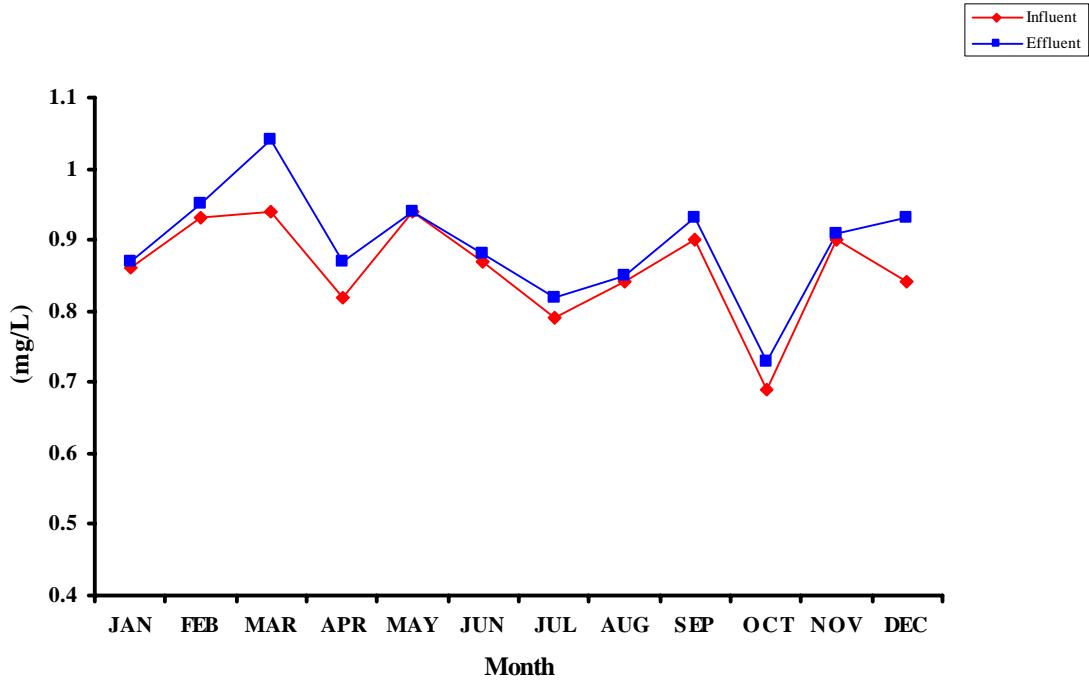
### Bromide 2003 Monthly Averages



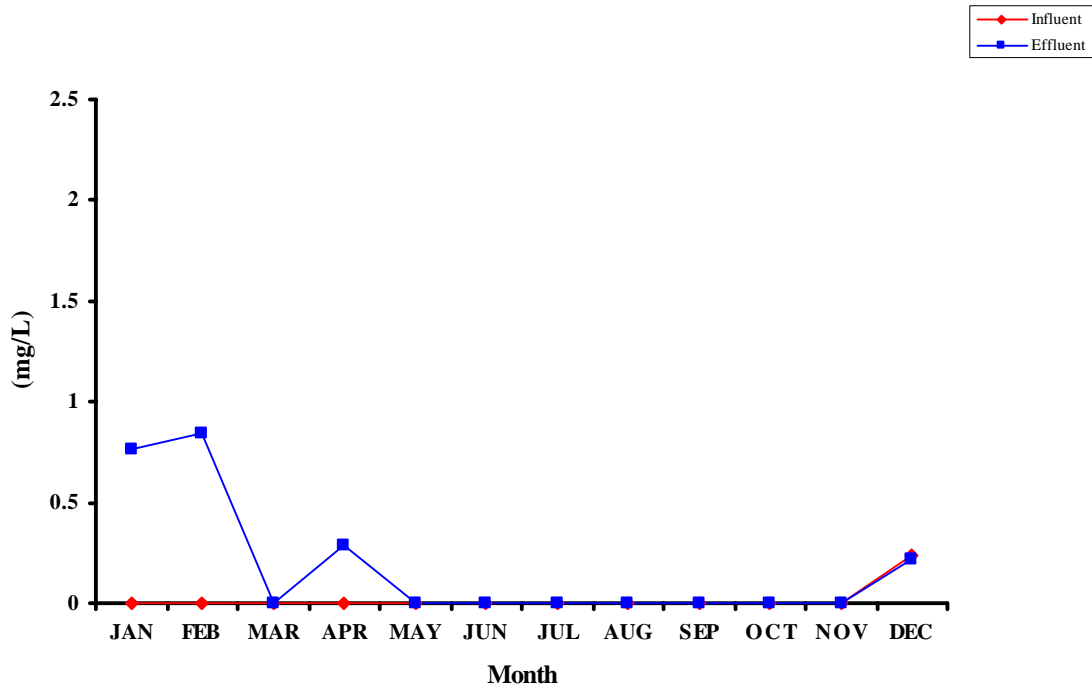
### Chloride 2003 Monthly Averages



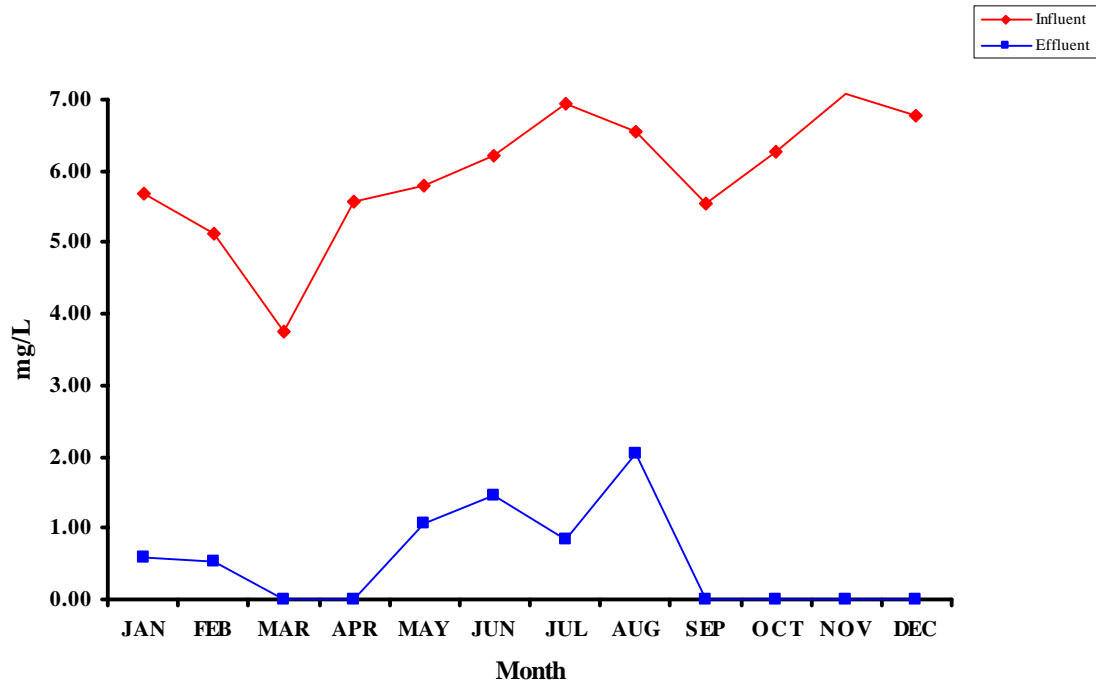
### Fluoride 2003 Monthly Averages



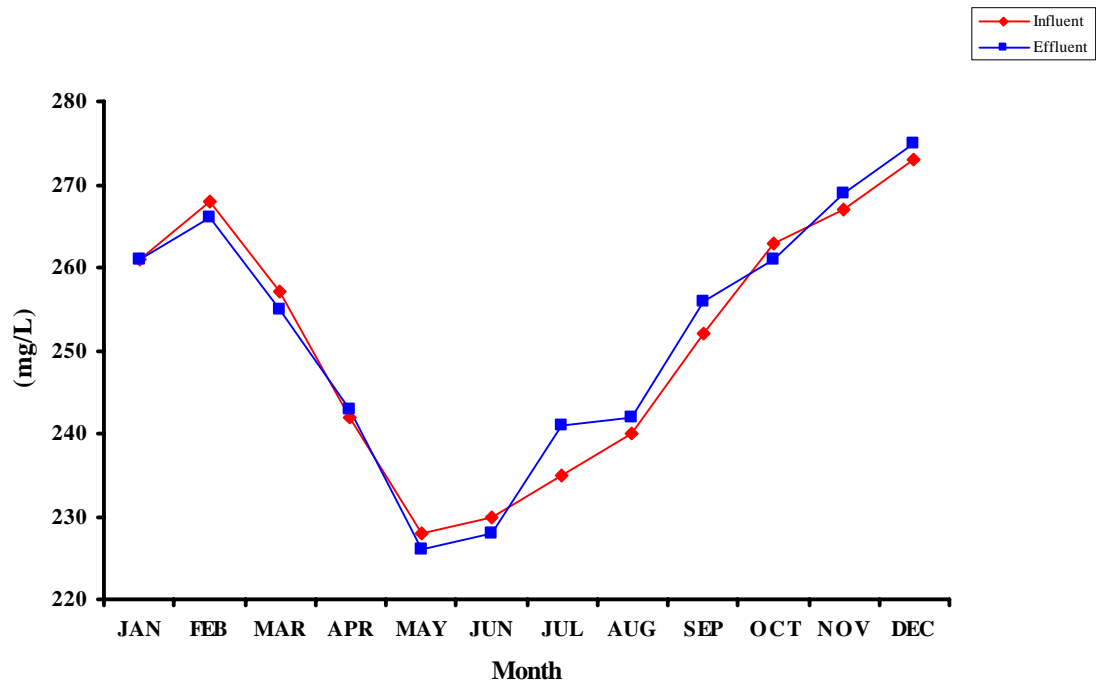
### Nitrate 2003 Monthly Averages



### O-Phosphate 2003 Monthly Averages



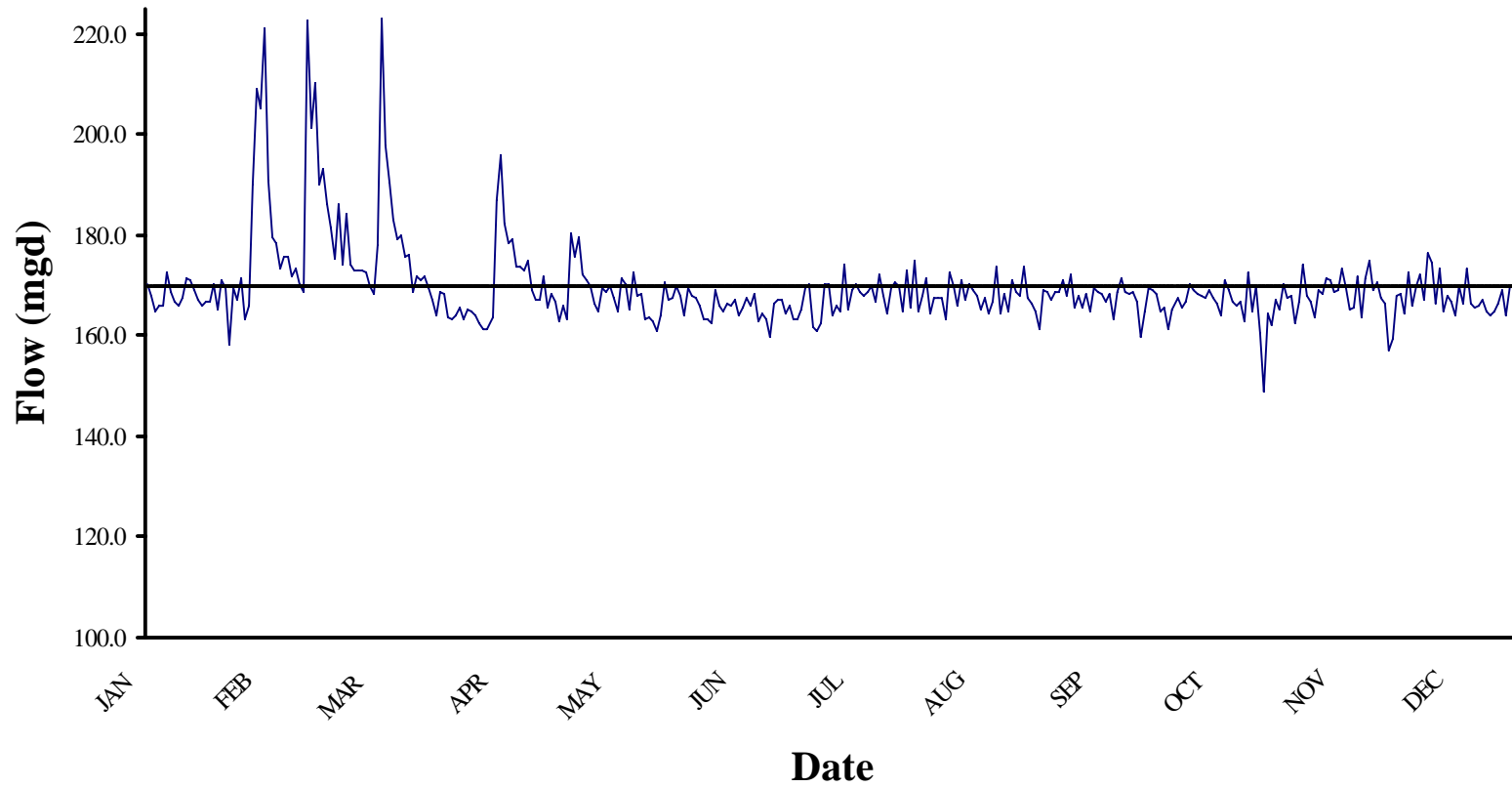
### Sulfate 2003 Monthly Averages



C. Daily Values of Selected Parameters.

Daily values of selected parameters (e.g. TSS, Flow, TSS Removals, etc.) are tabulated and presented graphically; statistical summary information is provided.

## Point Loma Wastewater Treatment Plant 2003 Daily Flows (mgd)



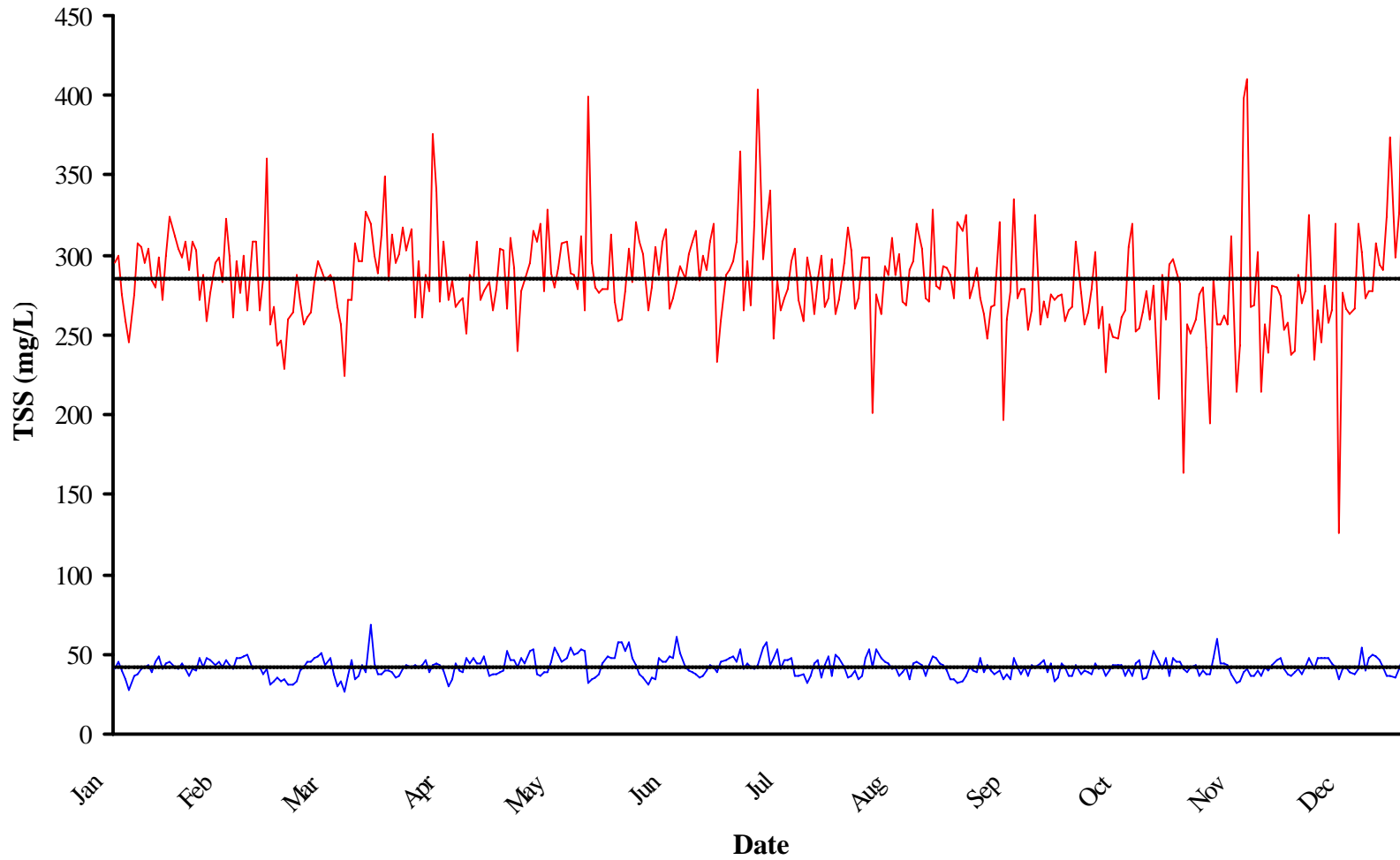


# Point Loma Wastewater Treatment Plant

## 2003 Flows (mgd)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	163.2	170.1	193.2	168.2	165.9	164.2	165.3	168.1	169.1	165.0	170.3	168.3	
2	166.2	165.1	186.3	163.7	163.3	169.4	169.4	171.3	168.5	165.8	167.7	164.3	
3	166.5	171.2	181.4	163.4	180.4	168.0	170.1	164.5	167.2	161.3	168.1	172.5	
4	175.0	169.4	175.5	163.9	175.7	167.6	161.9	167.6	168.8	165.4	162.5	166.0	
5	175.1	158.1	186.2	165.4	179.5	166.1	161.0	167.6	168.6	167.6	166.8	169.8	
6	166.9	169.5	174.3	163.2	172.1	163.2	162.5	167.4	171.1	165.7	174.1	172.1	
7	166.1	167.3	184.1	165.3	171.2	163.2	170.4	163.2	167.9	166.7	168.1	167.3	
8	165.8	171.4	174.1	164.7	169.8	162.6	170.1	172.4	172.2	170.4	166.9	176.4	
9	169.0	163.4	172.8	164.0	166.5	169.2	164.0	169.7	165.7	169.1	163.7	174.4	
10	168.9	165.9	173.2	162.6	164.9	165.9	166.1	166.1	168.1	168.2	169.1	166.5	
11	176.0	190.0	172.9	161.2	169.3	164.7	164.6	170.9	165.6	167.8	168.2	173.4	
12	171.0	209.2	172.7	161.4	168.8	166.4	174.0	167.0	168.4	167.5	171.5	164.6	
13	168.0	205.4	169.9	163.7	169.8	165.8	165.4	170.2	165.0	169.3	171.2	168.1	
14	170.3	221.0	168.5	187.1	167.7	167.3	169.1	169.1	169.4	167.7	168.8	166.7	
15	170.2	191.0	178.1	196.0	164.8	164.0	170.4	167.8	168.6	166.4	169.3	164.2	
16	167.9	179.7	223.2	182.4	171.4	165.8	168.8	165.4	168.5	164.0	173.6	169.9	
17	164.8	178.5	197.8	178.3	170.3	167.4	168.1	167.7	166.9	171.2	169.5	166.6	
18	166.1	173.3	190.3	179.4	165.4	165.8	168.8	164.5	168.2	169.0	165.4	173.5	
19	166.1	175.8	182.9	173.6	172.5	168.2	169.7	166.8	163.4	166.8	165.5	166.2	
20	172.4	175.9	179.0	173.8	167.8	163.1	166.7	173.6	168.6	166.0	171.8	165.4	
21	168.8	171.7	180.0	173.2	168.5	164.4	172.3	164.5	171.6	166.9	163.6	165.9	
22	166.6	173.5	175.8	174.9	163.4	163.1	168.0	168.1	168.9	162.9	171.6	167.2	
23	165.9	170.2	175.9	169.3	163.6	160.0	164.6	165.0	168.5	172.6	175.0	164.6	
24	167.7	168.9	168.8	167.2	163.0	166.6	169.3	171.0	168.7	164.8	169.2	163.9	
25	171.4	222.6	172.0	167.2	161.1	167.0	170.5	168.9	166.9	169.9	170.7	164.7	
26	170.9	201.3	171.1	171.9	164.0	167.4	170.0	168.0	159.7	160.4	167.4	166.3	
27	169.0	210.2	172.0	165.5	170.5	164.6	164.7	173.6	164.9	148.8	166.5	169.1	
28	167.3	190.1	169.5	168.3	167.1	166.1	173.1	167.6	169.5	164.6	157.1	164.1	
29	165.9		167.3	166.9	167.7	163.4	165.5	166.4	169.2	162.0	159.4	170.0	
30	166.7		164.0	162.9	169.8	163.4	175.1	164.7	168.2	167.1	167.8	170.3	Annual
31	166.6		168.7		167.9		164.7	161.4		165.4		178.8	Summary
Average	168.5	181.4	178.1	169.6	168.5	165.5	167.9	167.7	167.9	166.0	168.0	168.4	169.8
Minimum	163.2	158.1	164.0	161.2	161.1	160.0	161.0	161.4	159.7	148.8	157.1	163.9	148.8
Maximum	176.0	222.6	223.2	196.0	180.4	169.4	175.1	173.6	172.2	172.6	175.0	178.8	223.2
Total	5222.2	5079.7	5521.2	5088.3	5223.4	4963.5	5204.1	5200.2	5035.7	5146.0	5039.7	5221.0	61944.9

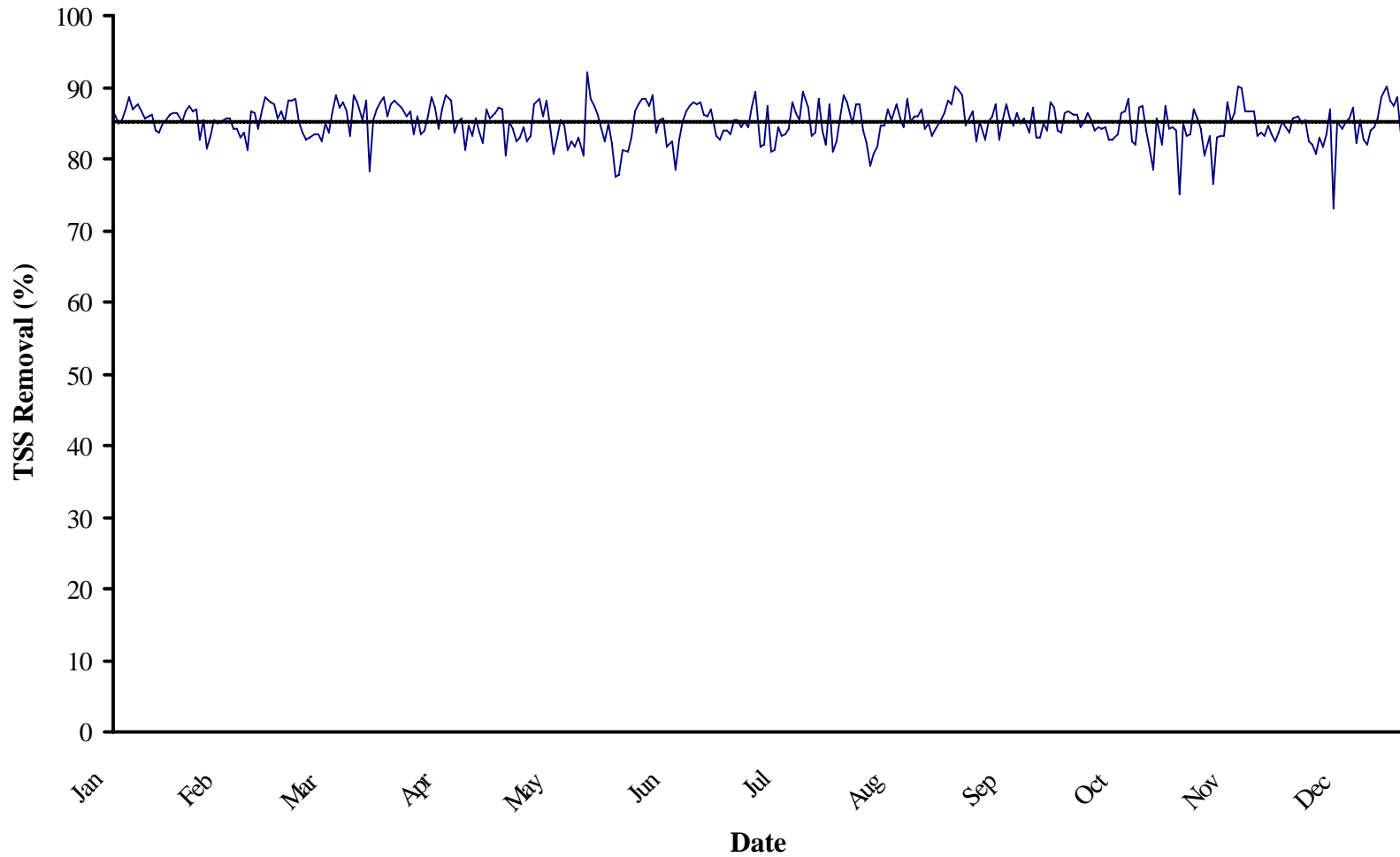
# Point Loma Wastewater Treatment Plant 2003 Total Suspended Solids



Point Loma Wastewater Treatment Plant  
2003 Total Suspended Solids (mg/L)

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	283	45	304	41	247	33	295	35	267	52	260	58	296	49	317	35	315	33	268	36	257	39	288	41
2	275	44	299	44	229	34	301	37	311	46	277	52	308	45	303	37	325	36	309	43	251	42	270	38
3	296	47	308	41	260	31	317	41	292	46	304	58	365	53	267	40	273	42	276	38	260	43	278	42
4	288	46	291	37	264	31	303	43	240	42	283	48	265	41	273	34	281	40	256	40	275	36	325	47
5	269	45	308	41	287	33	316	42	277	47	321	43	296	44	299	37	292	39	264	39	280	40	234	41
6	291	48	303	40	271	40	261	43	284	44	309	38	269	42	299	48	273	48	279	38	242	38	265	48
7	312	29	272	47	257	42	296	42	295	52	301	35	321	41	299	53	263	39	302	44	195	38	245	47
8	341	35	288	42	261	45	261	43	315	53	265	31	404	43	201	42	248	43	254	41	285	48	281	48
9	383	33	259	48	264	45	288	46	309	38	280	35	297	54	275	53	268	40	268	42	257	60	258	47
10	297	38	276	46	283	47	277	39	319	37	305	34	320	58	263	48	269	38	227	36	257	44	265	44
11	284	42	295	43	296	49	376	43	277	39	287	47	341	43	293	45	321	40	257	40	262	44	319	42
12	303	45	299	45	291	51	341	44	328	39	308	45	248	47	287	44	197	34	249	43	257	43	126	34
13	333	39	283	42	284	43	271	43	289	45	316	45	284	53	311	41	260	38	248	43	312	38	276	41
14	300	42	323	46	287	47	308	40	280	54	267	49	265	41	287	42	277	34	261	43	215	32	267	42
15	295	41	300	43	283	38	272	30	292	50	273	48	273	46	301	37	335	48	265	36	243	33	263	39
16	300	45	261	41	268	30	284	34	307	45	283	61	279	46	271	39	273	42	305	41	398	39	267	38
17	275	40	296	47	256	33	268	44	308	47	293	51	296	47	269	42	279	38	320	37	410	41	319	41
18	259	34	276	47	225	27	271	40	289	54	285	42	304	37	291	34	279	42	252	44	268	36	302	54
19	245	28	300	49	272	36	273	39	287	50	301	40	272	37	296	44	253	36	254	46	269	36	273	40
20	275	36	265	50	272	46	251	47	279	51	308	39	259	38	320	45	265	43	264	34	302	40	277	48
21	307	38	309	41	307	34	287	44	312	53	315	38	298	32	304	43	325	42	278	35	214	36	278	50
22	305	41	308	42	296	36	284	48	265	52	284	35	286	37	273	36	257	44	260	42	256	42	307	49
23	295	42	265	42	296	43	308	44	399	32	300	36	263	44	271	43	271	46	281	52	239	40	294	46
24	304	43	285	38	327	39	272	44	295	34	291	40	284	46	328	49	261	39	210	45	281	43	291	42
25	284	39	360	41	319	69	277	49	280	35	308	43	300	35	281	47	275	44	288	41	280	46	324	37
26	280	45	257	31	300	44	283	37	276	38	319	42	268	43	279	44	272	33	260	47	274	48	374	37
27	299	49	268	33	289	38	265	38	279	44	233	39	273	49	293	43	274	35	294	37	253	41	298	35
28	272	41	243	35	313	38	279	38	279	49	259	45	297	37	292	40	275	44	297	47	258	38	326	41
29	300	44			349	40	304	39	313	47	287	46	263	50	287	34	259	42	290	45	238	37	425	48
30	324	45			284	40	303	40	271	48	291	47	272	48	273	34	265	36	282	45	240	39	291	48
31	312	42			313	39			259	58			295	42	321	32			164	41			286	50
Avg	296	41.0	289	42.3	282	40.0	290	41.2	293	45.8	290	43.7	292	44.1	288	41.5	276	39.9	267	41.3	268	40.7	287	43.4
Min	245	28.0	243	31.0	225	27.0	251	30.0	240	32.0	233	31.0	248	32.0	201	32.0	197	33.0	164	34.0	195	32.0	126	34.0
Max	383	49.0	360	50.0	349	69.0	376	49.0	399	58.0	321	61.0	404	58.0	328	53.0	335	48.0	320	52.0	410	60.0	425	54.0

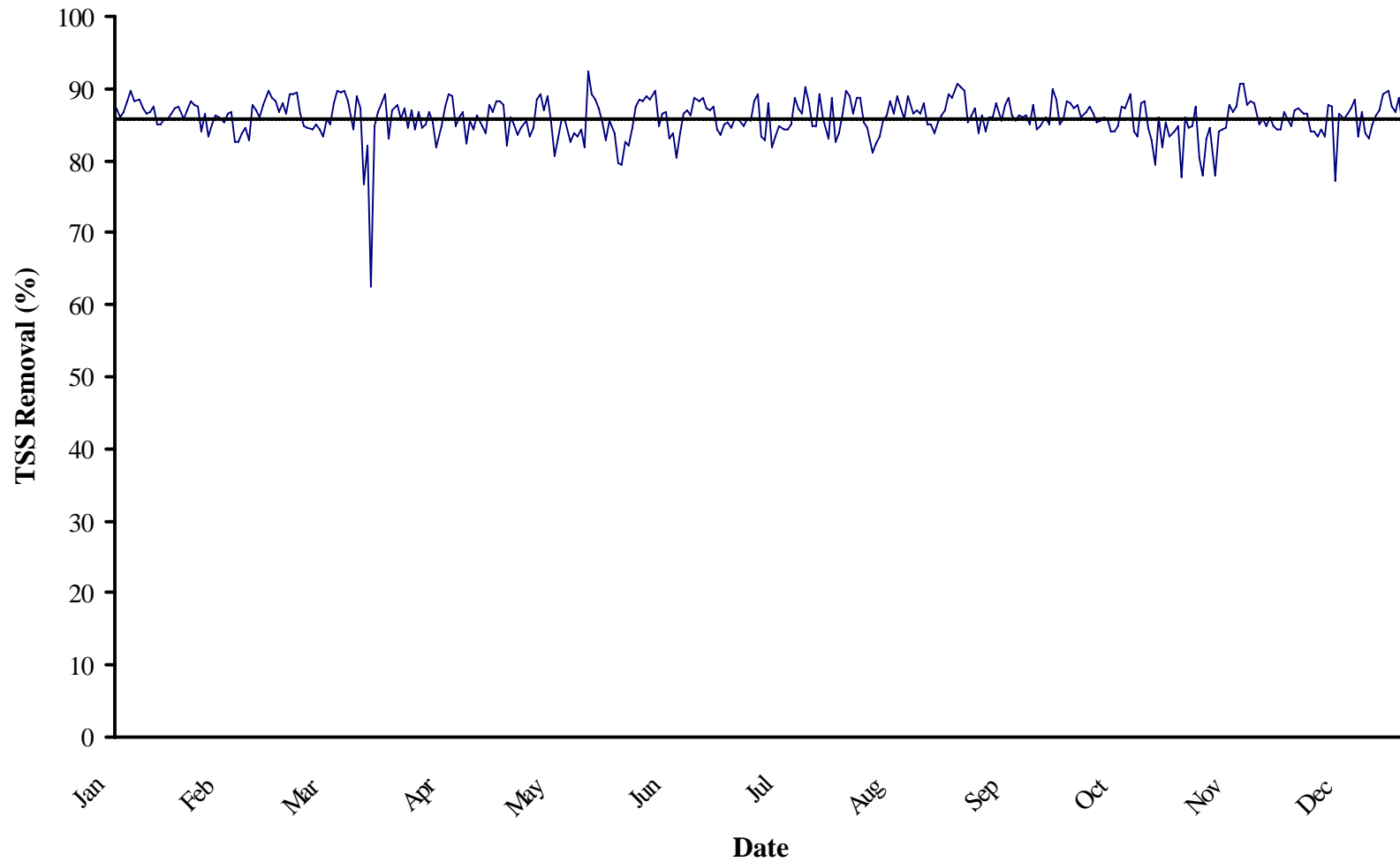
## Point Loma Wastewater Treatment Plant 2003 TSS Removal (%) at Point Loma



Point Loma Wastewater Treatment Plant  
**2003 Total Suspended Solids Removals (%) at Point Loma**

Day	Jan % Rem	Feb % Rem	Mar % Rem	Apr % Rem	May % Rem	Jun % Rem	Jul % Rem	Aug % Rem	Sep % Rem	Oct % Rem	Nov % Rem	Dec % Rem
1	84.1	86.5	86.6	88.1	80.5	77.7	83.4	89.0	89.5	86.6	84.8	85.8
2	84.0	85.3	85.2	87.7	85.2	81.2	85.4	87.8	88.9	86.1	83.3	85.9
3	84.1	86.7	88.1	87.1	84.2	80.9	85.5	85.0	84.6	86.2	83.5	84.9
4	84.0	87.3	88.3	85.8	82.5	83.0	84.5	87.5	85.8	84.4	86.9	85.5
5	83.3	86.7	88.5	86.7	83.0	86.6	85.1	87.6	86.6	85.2	85.7	82.5
6	83.5	86.8	85.2	83.5	84.5	87.7	84.4	83.9	82.4	86.4	84.3	81.9
7	90.7	82.7	83.7	85.8	82.4	88.4	87.2	82.3	85.2	85.4	80.5	80.8
8	89.7	85.4	82.8	83.5	83.2	88.3	89.4	79.1	82.7	83.9	83.2	82.9
9	91.4	81.5	83.0	84.0	87.7	87.5	81.8	80.7	85.1	84.3	76.7	81.8
10	87.2	83.3	83.4	85.9	88.4	88.9	81.9	81.7	85.9	84.1	82.9	83.4
11	85.2	85.4	83.4	88.6	85.9	83.6	87.4	84.6	87.5	84.4	83.2	86.8
12	85.1	84.9	82.5	87.1	88.1	85.4	81.0	84.7	82.7	82.7	83.3	73.0
13	88.3	85.2	84.9	84.1	84.4	85.8	81.3	86.8	85.4	82.7	87.8	85.1
14	86.0	85.8	83.6	87.0	80.7	81.6	84.5	85.4	87.7	83.5	85.1	84.3
15	86.1	85.7	86.6	89.0	82.9	82.4	83.2	87.7	85.7	86.4	86.4	85.2
16	85.0	84.3	88.8	88.0	85.3	78.4	83.5	85.6	84.6	86.6	90.2	85.8
17	85.5	84.1	87.1	83.6	84.7	82.6	84.1	84.4	86.4	88.4	90.0	87.1
18	86.9	83.0	88.0	85.2	81.3	85.3	87.8	88.3	84.9	82.5	86.6	82.1
19	88.6	83.7	86.8	85.7	82.6	86.7	86.4	85.1	85.8	81.9	86.6	85.3
20	86.9	81.1	83.1	81.3	81.7	87.3	85.3	85.9	83.8	87.1	86.8	82.7
21	87.6	86.7	88.9	84.7	83.0	87.9	89.3	85.9	87.1	87.4	83.2	82.0
22	86.6	86.4	87.8	83.1	80.4	87.7	87.1	86.8	82.9	83.8	83.6	84.0
23	85.8	84.2	85.5	85.7	92.0	88.0	83.3	84.1	83.0	81.5	83.3	84.4
24	85.9	86.7	88.1	83.8	88.5	86.3	83.8	85.1	85.1	78.6	84.7	85.6
25	86.3	88.6	78.4	82.3	87.5	86.0	88.3	83.3	84.0	85.8	83.6	88.6
26	83.9	87.9	85.3	86.9	86.2	86.8	84.0	84.2	87.9	81.9	82.5	90.1
27	83.6	87.7	86.9	85.7	84.2	83.3	82.1	85.3	87.2	87.4	83.8	88.3
28	84.9	85.6	87.9	86.4	82.4	82.6	87.5	86.3	84.0	84.2	85.3	87.4
29	85.3		88.5	87.2	85.0	84.0	81.0	88.2	83.8	84.5	84.5	88.7
30	86.1		85.9	86.8	82.3	83.8	82.4	87.5	86.4	84.0	83.7	83.5
31	86.5		87.5		77.6		85.8	90.0		75.0		82.5
Avg	86.1	85.3	85.8	85.7	84.1	84.9	84.8	85.5	85.4	84.3	84.5	84.5
Min	83.3	81.1	78.4	81.3	77.6	77.7	81.0	79.1	82.4	75.0	76.7	73.0
Max	91.4	88.6	88.9	89.0	92.0	88.9	89.4	90.0	89.5	88.4	90.2	90.1

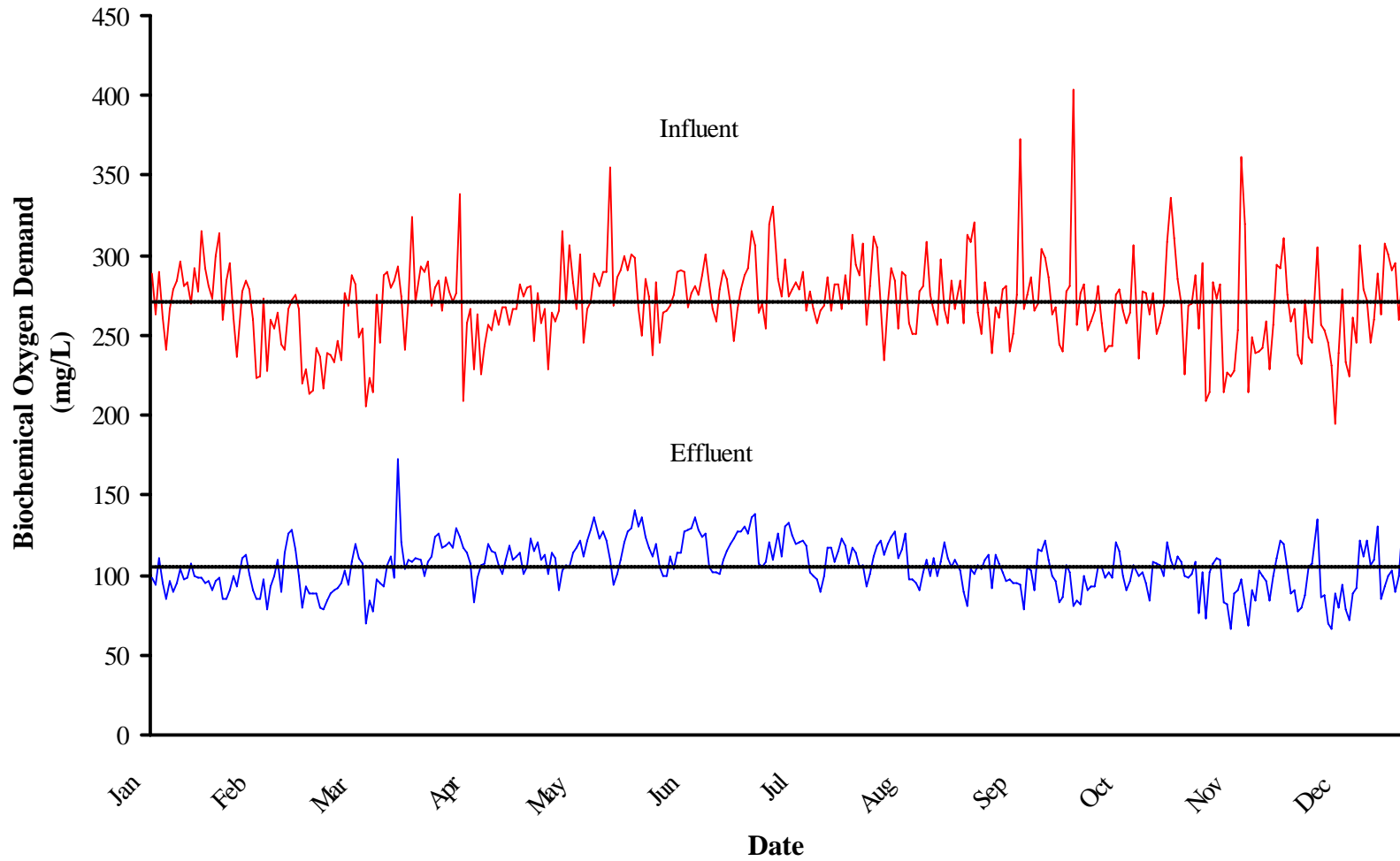
## Point Loma Wastewater Treatment Plant 2003 TSS Removal (%) Systemwide



**Point Loma Wastewater Treatment Plant**  
**2003 Total Suspended Solids Removals (%) Systemwide**

Day	Jan % Rem	Feb % Rem	Mar % Rem	Apr % Rem	May % Rem	Jun % Rem	Jul % Rem	Aug % Rem	Sep % Rem	Oct % Rem	Nov % Rem	Dec % Rem
1	85.4	87.5	87.9	87.8	82.0	79.4	84.5	89.8	90.3	88.0	86.0	87.0
2	85.3	85.8	86.5	85.9	86.0	82.7	85.8	88.9	89.6	87.2	84.4	87.1
3	85.2	86.9	89.1	87.2	85.2	82.2	85.8	86.6	85.3	87.7	84.8	86.4
4	85.2	88.3	89.2	84.6	83.6	84.5	84.8	88.7	86.3	86.1	87.6	86.6
5	84.7	87.7	89.4	87.0	84.5	87.5	85.7	88.8	87.2	86.8	80.4	84.2
6	84.8	87.6	86.5	84.3	85.6	88.6	85.6	85.3	83.7	87.6	77.9	84.1
7	91.5	84.1	84.9	86.7	83.3	88.3	88.2	84.6	86.4	86.4	83.1	83.4
8	90.3	86.5	84.5	84.5	84.5	89.1	89.3	81.1	84.0	85.2	84.6	84.2
9	91.7	83.4	84.3	85.0	88.4	88.4	83.3	82.4	86.1	85.5	77.9	83.2
10	87.1	85.0	84.9	86.7	89.1	89.7	82.8	83.4	86.0	85.9	84.0	87.8
11	85.8	86.3	84.2	85.2	87.0	84.9	88.0	85.6	88.0	85.7	84.4	87.6
12	86.1	86.1	83.4	81.9	88.9	86.4	81.9	86.2	85.5	84.0	84.7	77.3
13	88.7	85.3	85.7	84.8	85.5	86.7	83.2	88.3	87.7	84.1	87.7	86.5
14	86.8	86.6	85.1	87.4	80.7	83.1	84.7	86.5	88.8	84.9	86.8	85.8
15	87.2	86.7	88.0	89.3	83.0	83.8	84.4	89.0	86.3	87.5	87.5	86.5
16	86.0	82.6	89.7	88.9	85.9	80.3	84.4	87.3	85.6	87.3	90.7	87.3
17	86.7	82.6	89.4	84.8	85.6	83.9	85.1	85.7	86.2	89.2	90.6	88.4
18	88.2	83.8	89.8	86.0	82.5	86.4	88.8	89.0	86.0	84.0	87.8	83.4
19	89.8	84.6	88.3	86.7	83.8	87.0	87.4	86.6	86.2	83.3	88.3	86.7
20	88.3	82.8	84.4	82.4	83.3	86.3	86.4	86.9	85.1	88.0	87.9	83.9
21	88.5	87.7	88.9	85.6	84.2	88.8	90.1	86.6	87.7	88.2	85.1	83.2
22	87.2	86.9	87.4	84.2	81.7	88.3	88.0	88.0	84.2	84.6	85.9	85.2
23	86.6	86.0	76.6	86.2	92.4	88.7	84.7	85.0	84.9	82.8	84.8	86.2
24	86.7	87.7	82.2	84.8	89.3	87.2	84.8	85.1	86.1	79.4	86.0	87.1
25	87.4	89.7	62.4	83.9	88.5	87.0	89.3	83.8	85.0	86.1	84.9	89.2
26	85.0	88.6	84.9	87.8	87.2	87.4	85.8	85.3	89.9	81.9	84.4	89.8
27	85.0	88.3	86.7	86.7	85.3	84.4	83.1	86.4	88.5	85.2	84.4	87.6
28	85.9	86.7	88.1	88.2	82.8	83.6	88.8	87.0	85.1	83.4	86.8	86.7
29	85.9		89.3	88.3	85.6	85.0	82.5	89.1	85.8	84.1	85.9	88.8
30	86.5		83.0	87.8	83.8	85.2	83.8	88.7	88.2	84.7	84.8	84.8
31	87.3		86.9		79.6		86.6	90.7		77.8		83.8
Avg	87.0	86.1	85.5	86.0	85.1	85.8	85.7	86.7	86.5	85.2	85.3	85.8
Min	84.7	82.6	62.4	81.9	79.6	79.4	81.9	81.1	83.7	77.8	77.9	77.3
Max	91.7	89.7	89.8	89.3	92.4	89.7	90.1	90.7	90.3	89.2	90.7	89.8

# Point Loma Wastewater Treatment Plant 2003 Biochemical Oxygen Demand



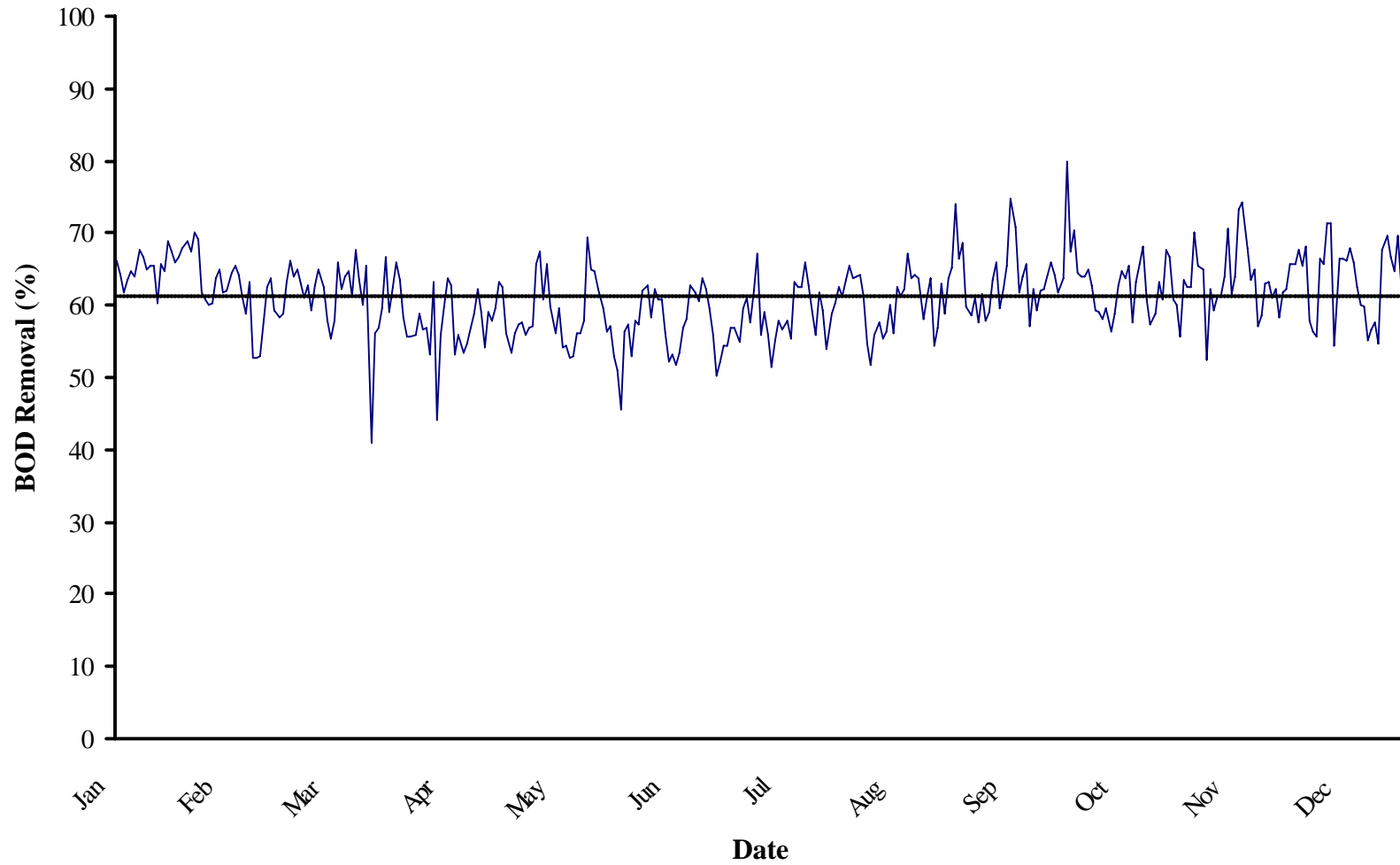


Point Loma Wastewater Treatment Plant  
**2003 Biochemical Oxygen Demand (mg/L)**

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	283	89	273	91	216	89	290	99	281	123	250	136	292	126	288	105	309	104	257	84	269	98	266	91
2	286	99	300	96	242	89	296	108	247	115	285	124	315	136	307	106	321	101	276	82	270	101	238	77
3	270	95	314	98	237	80	269	112	276	121	274	117	306	138	257	93	264	106	282	100	288	108	232	80
4	265	99	260	85	217	78	280	124	258	110	238	112	264	107	281	101	251	104	253	91	254	76	272	87
5	279	103	284	85	239	84	284	126	267	113	283	119	270	105	312	112	283	110	259	93	295	102	249	105
6	289	116	295	91	238	88	265	117	229	101	246	105	254	108	305	118	266	113	265	93	209	73	245	107
7	303	109	261	100	233	91	286	118	264	114	264	100	319	121	269	122	239	92	281	105	214	102	305	135
8	333	113	237	93	247	92	277	120	259	111	265	99	331	109	234	113	268	113	258	105	283	107	257	86
9	275	104	278	111	234	95	271	117	<b>265</b>	<b>91</b>	269	112	285	126	270	119	261	107	240	98	273	111	253	87
10	261	101	284	113	276	103	276	129	315	103	275	104	274	112	292	124	279	102	243	102	282	109	245	70
11	260	106	279	101	269	94	338	124	271	106	290	114	297	131	284	127	281	96	243	98	214	83	231	66
12	268	105	260	91	288	108	209	117	306	105	291	114	274	133	254	111	240	97	275	120	227	82	195	89
13	272	92	223	85	282	119	258	114	283	114	290	127	279	125	290	116	251	95	279	115	225	66	239	80
14	267	102	224	85	249	111	267	107	266	117	268	128	283	119	287	126	275	95	265	99	228	88	279	94
15	289	98	273	97	254	107	229	83	301	122	276	129	279	121	258	97	373	94	258	91	253	91	233	79
16	263	94	228	79	206	70	263	98	245	112	281	136	290	122	251	97	267	78	264	96	362	97	224	72
17	290	111	260	93	223	84	226	106	267	122	275	128	265	118	251	95	275	105	306	106	320	82	261	89
18	261	95	254	99	214	77	243	107	271	128	287	124	278	102	277	91	286	103	236	100	215	69	246	92
19	241	85	264	109	275	97	256	119	289	136	301	126	266	100	281	102	<b>265</b>	<b>91</b>	278	102	249	91	306	122
20	267	96	244	90	245	95	253	115	281	123	282	105	258	97	308	110	270	116	276	95	239	84	279	112
21	279	90	241	114	287	93	265	114	290	127	267	102	265	90	275	100	304	115	263	84	240	103	272	122
22	284	95	266	126	290	106	257	106	290	122	259	102	269	100	265	111	299	122	276	108	242	100	245	106
23	296	104	272	128	280	112	268	101	355	109	279	101	286	117	256	99	286	109	251	107	259	96	260	110
24	281	97	275	116	284	98	268	110	269	94	291	110	265	117	297	108	263	99	258	106	229	84	289	131
25	283	98	266	100	293	173	257	118	286	101	285	115	282	108	266	121	268	96	269	99	257	100	263	85
26	270	107	220	80	274	120	267	109	291	110	270	119	282	115	258	111	244	83	308	121	294	111	307	93
27	292	100	229	93	241	104	266	112	300	121	247	123	267	123	284	105	240	86	336	109	292	122	301	100
28	277	98	213	89	272	110	282	114	291	127	266	127	287	118	267	110	278	106	311	104	311	119	291	103
29	315	98			324	108	274	101	301	129	279	127	270	107	284	103	281	102	285	112	275	104	295	90
30	292	95			271	111	280	105	298	140	288	131	313	117	258	90	404	81	270	108	259	89	260	99
31	281	96			293	110			267	131			294	114	313	81			226	100			287	131
Avg	280	99.7	260	97.8	258	99.9	267	111.7	280	116.1	274	117.2	283	115.5	277	107.2	280	100.7	269	101.1	261	94.9	262.1	96.5
Min	241	85.0	213	79.0	206	70.0	209	83.0	229	91.1	238	99.0	254	90.0	234	81.0	239	78.0	226	82.0	209	66.0	195.0	66.0
Max	333	116.0	314	128.0	324	173.0	338	129.0	355	140.0	301	136.0	331	138.0	313	127.0	404	122.0	336	121.0	362	122.0	307.0	135.0

**BOLD**=Batches failed QC on these dates. Used median BOD values from 2002, instead of result value.

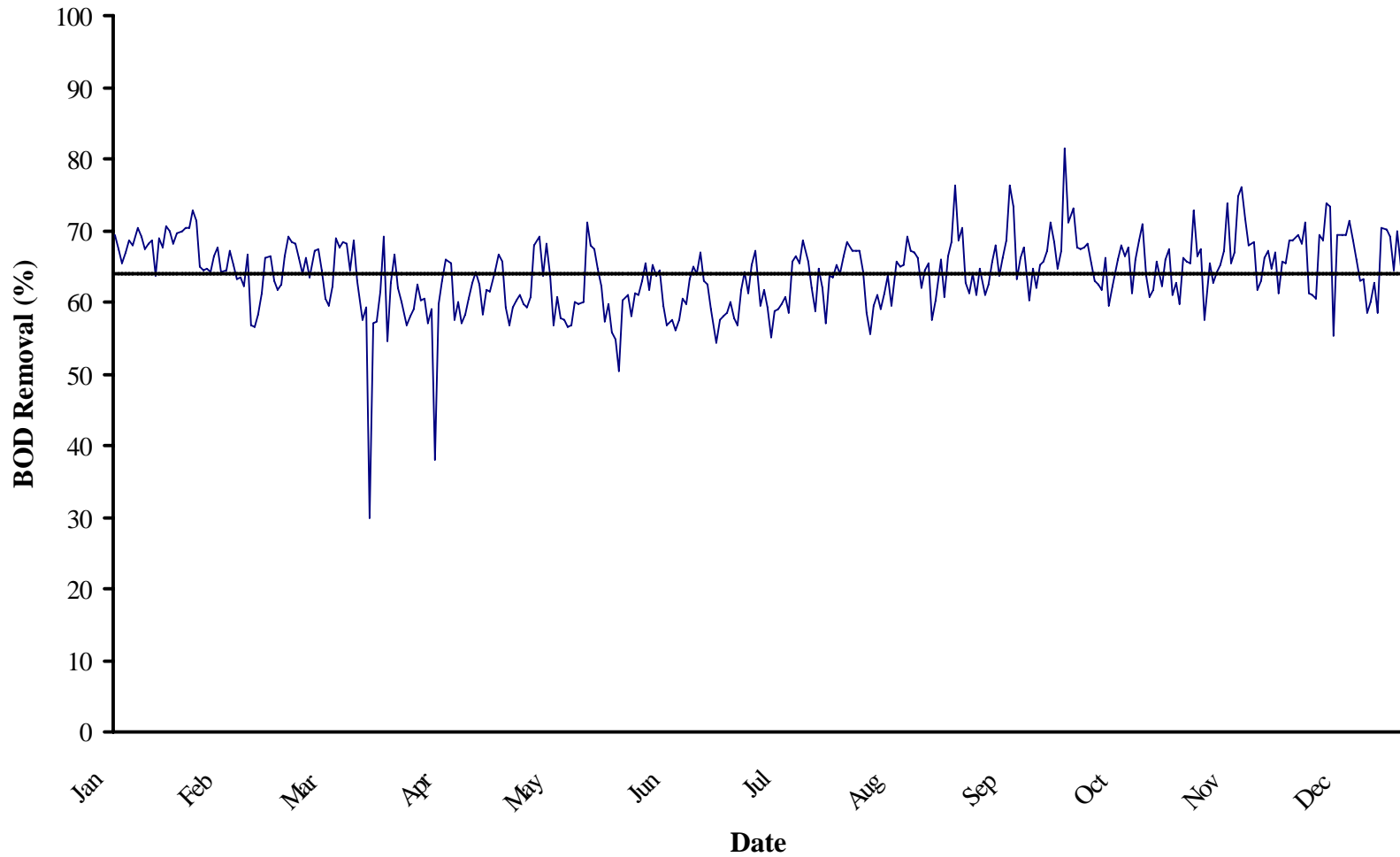
## Point Loma Wastewater Treatment 2003 BOD Removal (%) at Point Loma



Point Loma Wastewater Treatment Plant  
**2003 Biochemical Oxygen Demand Removals (%) at Point Loma**

Day	Jan % Rem	Feb % Rem	Mar % Rem	Apr % Rem	May % Rem	Jun % Rem	Jul % Rem	Aug % Rem	Sep % Rem	Oct % Rem	Nov % Rem	Dec % Rem
1	68.6	66.7	58.8	65.9	56.2	45.6	56.8	63.5	66.3	67.3	63.6	65.8
2	65.4	68.0	63.2	63.5	53.4	56.5	56.8	65.5	68.5	70.3	62.6	67.6
3	64.8	68.8	66.2	58.4	56.2	57.3	54.9	63.8	59.8	64.5	62.5	65.5
4	62.6	67.3	64.1	55.7	57.4	52.9	59.5	64.1	58.6	64.0	70.1	68.0
5	63.1	70.1	64.9	55.6	57.7	58.0	61.1	64.1	61.1	64.1	65.4	57.8
6	59.9	69.2	63.0	55.8	55.9	57.3	57.5	61.3	57.5	64.9	65.1	56.3
7	64.0	61.7	60.9	58.7	56.8	62.1	62.1	54.6	61.5	62.6	52.3	55.7
8	66.1	60.8	62.8	56.7	57.1	62.6	67.1	51.7	57.8	59.3	62.2	66.5
9	62.2	60.1	59.4	56.8	65.7	58.4	55.8	55.9	59.0	59.2	59.3	65.6
10	61.3	60.2	62.7	53.3	67.3	62.2	59.1	57.5	63.4	58.0	61.3	71.4
11	59.2	63.8	65.1	63.3	60.9	60.7	55.9	55.3	65.8	59.7	61.2	71.4
12	60.8	65.0	62.5	44.0	65.7	60.8	51.5	56.3	59.6	56.4	63.9	54.4
13	66.2	61.9	57.8	55.8	59.7	56.2	55.2	60.0	62.2	58.8	70.7	66.5
14	61.8	62.1	55.4	59.9	56.0	52.2	58.0	56.1	65.5	62.6	61.4	66.3
15	66.1	64.5	57.9	63.8	59.5	53.3	56.6	62.4	74.8	64.7	64.0	66.1
16	64.3	65.4	66.0	62.7	54.3	51.6	57.9	61.4	70.8	63.6	73.2	67.9
17	61.7	64.2	62.3	53.1	54.3	53.5	55.5	62.2	61.8	65.4	74.4	65.9
18	63.6	61.0	64.0	56.0	52.8	56.8	63.3	67.1	64.0	57.6	67.9	62.6
19	64.7	58.7	64.7	53.5	52.9	58.1	62.4	63.7	65.6	63.3	63.5	60.1
20	64.0	63.1	61.2	54.5	56.2	62.8	62.4	64.3	57.0	65.6	64.9	59.9
21	67.7	52.7	67.6	57.0	56.2	61.8	66.0	63.6	62.2	68.1	57.1	55.1
22	66.5	52.6	63.4	58.8	57.9	60.6	62.8	58.1	59.2	60.9	58.7	56.7
23	64.9	52.9	60.0	62.3	69.3	63.8	59.1	61.3	61.9	57.4	62.9	57.7
24	65.5	57.8	65.5	59.0	65.1	62.2	55.8	63.6	62.4	58.9	63.3	54.7
25	65.4	62.4	41.0	54.1	64.7	59.6	61.7	54.5	64.2	63.2	61.1	67.7
26	60.4	63.6	56.2	59.2	62.2	55.9	59.2	57.0	66.0	60.7	62.2	69.7
27	65.8	59.4	56.8	57.9	59.7	50.2	53.9	63.0	64.2	67.6	58.2	66.8
28	64.6	58.2	59.6	59.6	56.4	52.3	58.9	58.8	61.9	66.6	61.7	64.6
29	68.9		66.7	63.1	57.1	54.5	60.4	63.7	63.7	60.7	62.2	69.5
30	67.5		59.0	62.5	53.0	54.5	62.6	65.1	80.0	60.0	65.6	61.9
31	65.8		62.5		50.9		61.2	74.1		55.8		54.4
Avg	64.3	62.2	61.3	58.0	58.3	57.1	59.1	61.1	63.5	62.3	63.4	63.2
Min	59.2	52.6	41.0	44.0	50.9	45.6	51.5	51.7	57.0	55.8	52.3	54.4
Max	68.9	70.1	67.6	65.9	69.3	63.8	67.1	74.1	80.0	70.3	74.4	71.4

# Point Loma Wastewater Treatment Plant 2003 BOD Removal (%) Systemwide



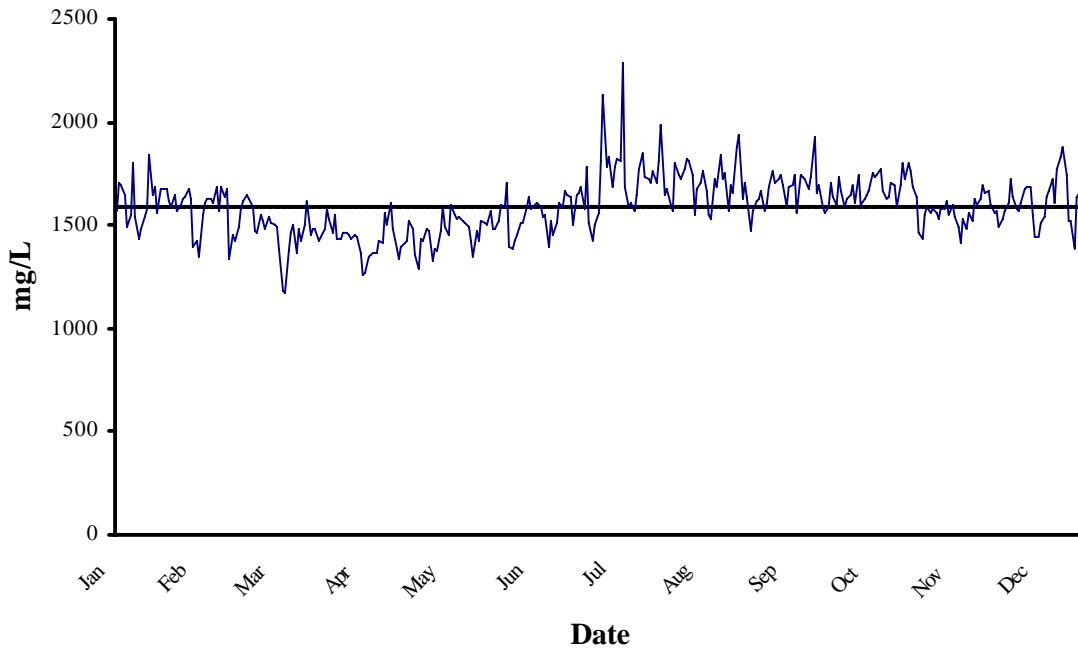
Point Loma Wastewater Treatment Plant  
**2003 Biochemical Oxygen Demand Removals (%) Systemwide**

Day	Jan % Rem	Feb % Rem	Mar % Rem	Apr % Rem	May % Rem	Jun % Rem	Jul % Rem	Aug % Rem	Sep % Rem	Oct % Rem	Nov % Rem	Dec % Rem
1	71.6	69.5	62.5	66.6	59.2	50.4	59.9	66.3	68.7	71.1	66.3	68.6
2	68.0	69.9	66.4	61.9	56.8	60.4	57.9	68.3	70.4	73.1	65.7	69.3
3	68.2	70.3	69.2	60.0	59.2	61.0	56.7	67.2	62.7	67.7	65.3	68.2
4	66.0	70.3	68.3	56.8	60.3	58.0	61.8	67.1	61.3	67.5	72.7	71.1
5	66.4	72.8	68.3	58.1	60.9	61.2	64.3	67.1	64.0	67.6	66.4	61.2
6	63.5	71.5	66.2	59.0	59.8	61.0	61.3	64.3	60.9	68.2	67.5	61.1
7	67.6	65.0	64.1	62.4	59.4	62.9	65.2	58.6	64.8	65.4	57.5	60.4
8	68.2	64.3	66.1	60.2	60.8	65.5	67.2	55.5	60.9	62.9	65.3	69.4
9	65.5	64.8	63.4	60.5	68.0	61.6	59.4	59.5	62.5	62.5	62.7	68.7
10	64.2	64.1	67.2	57.0	69.1	65.2	61.9	60.9	65.7	61.8	64.3	73.7
11	62.5	66.3	67.3	59.1	63.7	63.7	59.2	59.0	67.9	66.2	65.1	73.4
12	65.1	67.6	64.5	38.1	68.1	64.3	55.0	61.2	63.8	59.5	67.2	55.3
13	69.2	64.1	60.6	59.8	63.7	59.5	58.9	63.7	66.2	62.2	73.8	69.3
14	65.1	64.5	59.5	63.0	56.9	56.8	59.0	59.6	68.6	65.9	65.4	69.4
15	69.3	67.1	62.2	65.9	60.8	57.5	59.8	65.6	76.2	67.9	67.0	69.3
16	67.3	65.3	68.9	65.4	57.7	56.0	60.8	65.0	73.3	66.5	74.8	71.3
17	65.3	63.2	67.7	57.5	57.5	57.4	58.5	65.2	63.3	67.6	76.1	68.7
18	67.0	63.5	68.3	59.9	56.5	60.5	65.6	69.2	66.2	61.3	71.5	66.0
19	68.6	62.3	68.1	57.1	56.8	59.8	66.3	67.2	67.7	66.0	68.0	62.9
20	68.0	66.7	64.5	58.2	59.9	63.3	65.4	67.0	60.2	68.6	68.3	63.3
21	70.4	56.8	68.6	60.4	59.8	65.0	68.6	66.3	64.7	70.9	61.8	58.6
22	69.2	56.5	63.0	62.6	60.1	64.0	65.7	61.9	62.0	63.8	62.9	60.0
23	67.5	58.4	57.6	64.3	71.1	66.8	62.1	64.5	65.2	60.8	66.1	62.7
24	68.1	61.3	59.3	62.6	67.8	63.0	58.6	65.5	65.7	61.6	67.2	58.5
25	68.5	66.1	30.0	58.2	67.4	62.5	64.6	57.5	67.1	65.6	64.7	70.3
26	63.6	66.5	57.0	61.7	64.6	59.0	62.1	60.4	71.2	62.3	66.8	70.0
27	68.8	63.0	57.2	61.4	62.3	54.3	57.1	65.9	68.3	66.0	61.4	69.1
28	67.6	61.6	61.4	64.3	57.3	57.6	63.7	60.8	64.6	67.4	65.6	64.4
29	70.6		69.1	66.7	59.7	58.1	63.4	66.4	67.2	60.9	65.4	69.8
30	69.9		54.7	65.6	55.8	58.4	65.1	68.4	81.5	62.6	68.6	65.0
31	68.1		62.7		54.9		63.9	76.2		59.7		57.6
Avg	67.4	65.1	63.0	60.5	61.2	60.5	61.9	64.2	66.4	65.2	66.7	66.0
Min	62.5	56.5	30.0	38.1	54.9	50.4	55.0	55.5	60.2	59.5	57.5	55.3
Max	71.6	72.8	69.2	66.7	71.1	66.8	68.6	76.2	81.5	73.1	76.1	73.7

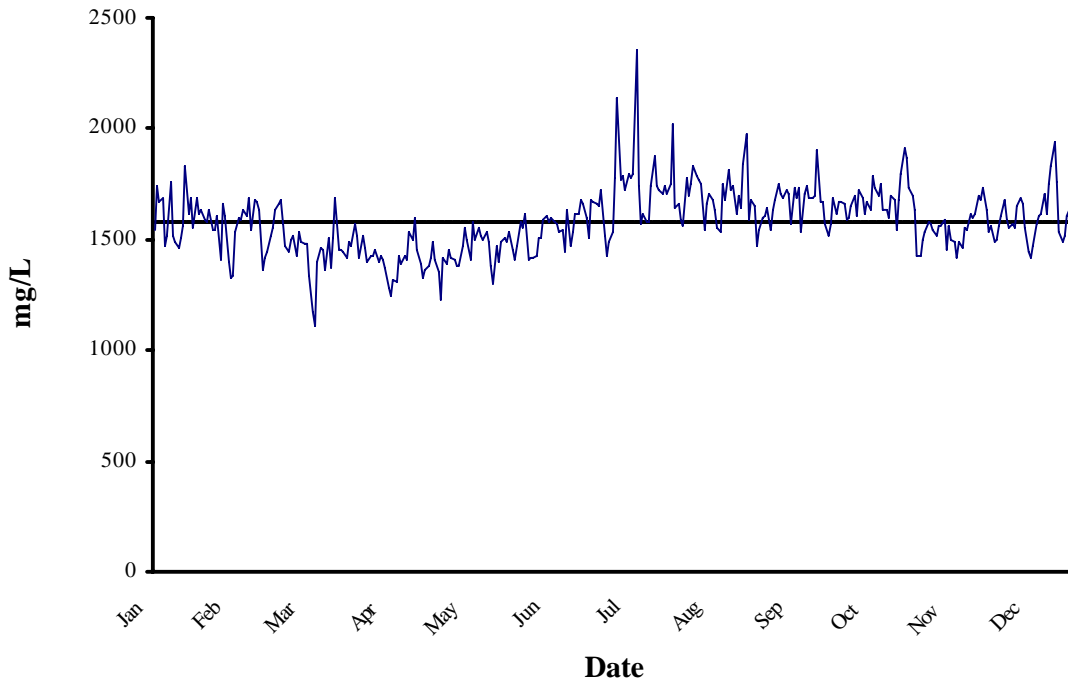




**Point Loma Influent  
2003 Total Dissolved Solids (mg/L)**



**Point Loma Effluent  
2003 Total Dissolved Solids (mg/L)**





**Point Loma Wastewater Treatment Plant  
2003 Total Dissolved Solids (mg/L)**

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	1650	1560	1680	1620	1580	1550	1580	1570	1520	1490	1480	1410	1660	1670	1650	1640	1470	1470	1640	1620	1460	1430	1530	1500
2	1660	1480	1680	1630	1620	1630	1530	1520	1480	1410	1520	1470	1690	1660	1680	1660	1570	1540	1600	1670	1430	1430	1570	1560
3	1700	1660	1620	1590	1650	1660	1460	1420	1360	1350	1600	1580	1580	1650	1600	1590	1620	1600	1730	1670	1550	1500	1610	1610
4	1520	1370	1590	1580	1630	1680	1550	1520	1290	1230	1590	1550	1780	1720	1570	1560	1630	1610	1670	1660	1590	1530	1720	1680
5	1640	1460	1650	1630	1590	1570	1430	1460	1430	1420	1710	1620	1510	1520	1800	1780	1670	1640	1590	1590	1560	1580	1640	1590
6	1580	1550	1570	1540	1470	1470	1430	1400	1420	1390	1400	1410	1420	1430	1740	1700	1570	1540	1630	1600	1580	1570	1580	1550
7	1610	1560	1600	1540	1460	1440	1460	1430	1480	1450	1390	1420	1500	1490	1720	1750	1610	1630	1650	1650	1560	1540	1570	1570
8	1560	1550	1630	1610	1550	1500	1460	1430	1470	1420	1420	1420	1560	1530	1770	1830	1690	1680	1700	1700	1530	1520	1610	1550
9	1510	1500	1640	1410	1520	1520	1450	1450	1330	1410	1450	1430	1810	1780	1820	1790	1760	1750	1610	1610	1580	1560	1680	1650
10	1480	1440	1680	1660	1480	1430	1430	1400	1390	1380	1510	1510	2130	2140	1810	1770	1710	1710	1740	1720	1580	1560	1690	1690
11	1630	1600	1630	1610	1540	1530	1450	1430	1380	1380	1510	1510	1780	1770	1740	1750	1720	1690	1600	1690	1620	1590	1690	1660
12	1540	1530	1400	1400	1510	1490	1440	1410	1470	1470	1590	1590	1830	1790	1550	1540	1740	1720	1630	1620	1550	1450	1550	1550
13	1670	1650	1420	1330	1500	1480	1370	1370	1590	1550	1640	1610	1690	1720	1680	1660	1700	1710	1650	1670	1600	1560	1440	1440
14	1590	1560	1350	1340	1490	1480	1260	1280	1490	1500	1580	1580	1780	1800	1710	1710	1590	1570	1670	1630	1540	1500	1440	1420
15	1570	1540	1550	1530	1390	1340	1270	1250	1450	1410	1600	1600	1820	1780	1760	1680	1690	1730	1750	1790	1490	1490	1510	1470
16	1710	1740	1610	1600	1180	1170	1350	1320	1600	1580	1610	1580	1810	1800	1670	1630	1700	1690	1730	1730	1410	1420	1540	1570
17	1700	1670	1630	1590	1170	1110	1360	1310	1550	1500	1590	1570	2290	2360	1550	1550	1740	1730	1740	1700	1530	1490	1640	1610
18	1650	1690	1630	1630	1380	1400	1370	1430	1530	1550	1540	1530	1690	1740	1530	1530	1560	1530	1770	1750	1480	1460	1670	1620
19	1490	1470	1610	1610	1460	1460	1370	1390	1540	1520	1550	1540	1590	1570	1720	1750	1740	1710	1670	1630	1560	1550	1720	1710
20	1550	1520	1690	1690	1500	1450	1420	1430	1520	1500	1400	1440	1610	1620	1690	1680	1730	1740	1630	1630	1520	1540	1610	1620
21	1800	1760	1570	1540	1370	1360	1410	1410	1510	1530	1520	1630	1570	1580	1840	1810	1720	1690	1640	1600	1630	1620	1770	1750
22	1540	1520	1690	1680	1480	1510	1560	1530	1490	1490	1450	1470	1650	1580	1720	1720	1680	1690	1710	1700	1600	1600	1830	1830
23	1430	1490	1640	1670	1420	1370	1500	1500	1420	1380	1510	1530	1770	1740	1750	1740	1730	1700	1700	1680	1630	1620	1880	1940
24	1480	1460	1680	1630	1500	1510	1610	1600	1350	1300	1610	1620	1850	1880	1570	1620	1930	1900	1590	1540	1700	1700	1740	1760
25	1540	1510	1340	1360	1620	1690	1480	1450	1470	1470	1590	1620	1730	1740	1700	1700	1660	1670	1700	1680	1660	1680	1520	1530
26	1580	1560	1450	1420	1450	1450	1390	1390	1420	1400	1670	1680	1720	1720	1660	1640	1700	1670	1800	1800	1670	1730	1520	1490
27	1840	1830	1420	1440	1480	1450	1340	1330	1520	1490	1650	1660	1710	1710	1880	1840	1590	1570	1720	1910	1600	1630	1390	1520
28	1650	1620	1490	1520	1480	1440	1400	1360	1510	1510	1640	1600	1760	1740	1940	1980	1560	1520	1800	1870	1560	1530	1640	1610
29	1690	1690			1420	1420	1410	1380	1500	1490	1500	1510	1710	1710	1630	1590	1590	1570	1760	1730	1570	1560	1670	1650
30	1560	1550			1440	1490	1420	1420	1570	1530	1650	1680	1810	1750	1710	1680	1710	1690	1690	1700	1490	1490	1650	1600
31	1680	1690			1480	1470			1480	1450			1990	2020	1640	1650			1640	1630			1690	1690
Avg	1606	1574	1576	1550	1478	1468	1432	1420	1469	1450	1549	1546	1735	1733	1703	1694	1669	1655	1682	1683	1561	1548	1623	1613
Min	1430	1370	1340	1330	1170	1110	1260	1250	1290	1230	1390	1410	1420	1430	1530	1530	1470	1470	1590	1540	1410	1420	1390	1420
Max	1840	1830	1690	1690	1650	1690	1610	1600	1600	1580	1710	1680	2290	2360	1940	1980	1930	1900	1800	1910	1700	1730	1880	1940



## **Toxicity Testing: Point Loma Ocean Outfall 2003**

### **INTRODUCTION**

The City of San Diego conducts aquatic bioassays as required by the City's National Pollutant Discharge Elimination System permit (No. CA0107409 and Order No. 2002-0025). The permit was adopted by the California Regional Water Quality Control Board on April 10, 2002. This testing is designed to determine the acute and chronic toxicity of effluent samples collected from the Point Loma Wastewater Treatment Plant. This chapter presents summaries and discussion of toxicity testing conducted in 2003.

Toxicity testing of wastewater effluent measures the bioavailability of toxicants in a complex mixture, accounts for synergistic and antagonistic actions, and integrates any potentially adverse effects of the constituents. Acute and chronic toxicity tests are characterized by the duration of exposure to a toxicant as well as the adverse effect (measured response) produced as the result of exposure to a toxicant. Acute toxicity testing consists of a short-term exposure period, usually 96 hours or less, and the acute effect refers to mortality of the test organism.

Chronic toxicity testing, in the classic sense, refers to long-term exposure of the test organism to a potential toxicant. This may involve exposing the test organism for its entire reproductive life cycle, which may exceed 12 months for organisms such as fish. In general, chronic tests are inherently more sensitive to toxicants than acute tests in that adverse effects are detected at lower toxicant concentrations. The City of San Diego is required to conduct critical/early life stage chronic tests that are intermediate between the acute and chronic toxicity testing protocols discussed above. These test results serve as short-term estimates of chronic toxicity.

### **MATERIALS & METHODS**

#### **Test Material**

Twenty-four hour, flow-weighted, composite effluent samples were collected at the Point Loma Wastewater Treatment Plant and stored at 4° C until test initiation. All tests were initiated within 36 hours of sample collection. The acute toxicity test concentrations were 3.87, 7.75, 15.5, 31.0, and 62% (nominal) for the topsmelt and mysid tests. Dilution water for the acute topsmelt and mysid tests consisted of the same receiving water used in the chronic toxicity tests.

Chronic toxicity test concentrations were 0.15, 0.27, 0.49, 0.88, and 1.56% effluent. The protocols for the chronic bioassays specify the use of unimpacted receiving water as dilution water. Receiving water was collected at water quality station B8 (see City of San Diego 2003) and used within 96 hours of collection. The receiving water samples were collected from a depth of 2 m and stored at 4° C until test initiation. Dilution water for chronic reference toxicant testing was obtained from the Scripps Institution of Oceanography (SIO), filtered, held at 4° C, and used within 96 hours of collection. Detailed methodology for all toxicity testing is described in the City Bioassay Lab Standard Operating Procedures Manual. (City of San Diego 2000).

#### **Acute Bioassays**

### ***Topsmelt Survival Bioassay***

The topsmelt acute bioassays were conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993). Larval *Atherinops affinis* (9-14 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and were exposed for 96 hours in a static-renewal system to 3.83, 7.75, 15.5, 31.0, and 62% effluent (nominal). The test solutions were renewed at 48 hours.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320 and 560 µg/L copper. Dilution water for chronic reference toxicant testing was obtained from SIO, filtered, held at 4° C, and used within 96 hours of collection. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

### ***Mysid Survival Bioassay***

The mysid acute bioassay was conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993). Larval *Mysidopsis bahia* (4-5 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and were exposed for 96 hours in a static-renewal system to 3.83, 7.75, 15.5, 31.0, and 62% effluent (nominal). The test solutions were renewed at 48 hours.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320, and 560 µg/L copper. Dilution water for chronic reference toxicant testing was obtained from SIO filtered, held at 4° C, and used within 96 hours of collection. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

## **Chronic Bioassays**

### ***Kelp Germination and Growth Test***

Chronic bioassays using the giant kelp, *Macrocystis pyrifera*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Kelp zoospores were kept in a static system and exposed for 48 hours to a series of effluent and reference toxicant concentrations. Zoospores were obtained one day prior to test initiation from the reproductive blades (sporophylls) of adult *Macrocystis* plants collected in the kelp beds near La Jolla, California.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 5.6, 10, 18, 32, 56, 100, and 180 µg/L. A reference toxicant control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, percent germination and germ-tube length were recorded.

The data were analyzed in accordance with “Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, germination data” and “Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, growth data” (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

### ***Red Abalone Development Bioassay***

Chronic bioassays using the red abalone, *Haliotis rufescens*, were conducted in accordance with

USEPA protocol EPA/600/R-95/136 (USEPA 1995). Test organisms were purchased from Cultured Abalone (Goleta, California), and shipped via overnight delivery to the City's bioassay laboratory. Mature male and female abalone were placed in natural seawater tanks at 15° C. Prior to test initiation, spawning was induced and abalone eggs and sperm were retained for the analysis. Subsequently, the eggs were fertilized, and a known quantity of fertilized embryos was added to each test replicate at the beginning of the 48-hour exposure period.

Simultaneous reference toxicant testing was performed using reagent grade zinc sulfate. The concentrations of zinc in the exposure series were 10, 18, 32, 56, and 100 µg/L. A reference toxicant control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, percent normal embryo development was recorded.

The percentage of normally developed embryos for each replicate was arcsine square root transformed. The data were analyzed in accordance with "Flowchart for statistical analysis of red abalone *Haliotis rufescens*, development data" (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

### ***Topsmelt Survival and Growth Bioassay***

Chronic bioassays using larvae of the topsmelt, *Atherinops affinis*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Topsmelt larvae were purchased from Aquatic Bio Systems (Fort Collins, CO), and shipped via overnight delivery to the City's bioassay laboratory. Prior to test initiation, the test organisms were held in seawater tanks and gradually acclimated to test temperature and salinity. The bioassays were subsequently initiated when the topsmelt larvae were 9-14 days old. Larval fish were then exposed to a series of effluent and reference toxicant concentrations for a period of seven days while being maintained in a static-renewal system. The test solutions were renewed daily.

Reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 32, 56, 100, 180, and 320 µg/L. A separate control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, the percent survival and the percent growth (i.e., weight gain) of larval fish were recorded.

The survival data were arcsine square root transformed and then analyzed in accordance with the "Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval survival data" (USEPA 1995). Growth data were analyzed in accordance with the "Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval growth data" (USEPA 1995). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

## **RESULTS & DISCUSSION**

### **Acute Bioassays**

The City conducted acute bioassays in January and July 2003 using both the topsmelt *Atherinops affinis* and the mysid *Mysidopsis bahia* as test organisms in accordance with Order No. R9-2002-0025. All tests demonstrated complete compliance with the standards (Table T.1).

### **Chronic Bioassays**

Three multiple-species chronic screening tests were conducted to verify sensitivity of the selected

test organisms to Point Loma effluent. Giant kelp (*Macrocystis pyrifera*), red abalone (*Haliotis rufescens*), and topsmelt (*Atherinops affinis*) were tested and the results indicated equal sensitivity among all species. Subsequent chronic bioassays on effluent samples were conducted using both kelp and abalone, since the giant kelp has been the most sensitive species in previous years, and the red abalone remains ecologically important to the region.

The giant kelp, red abalone, and topsmelt chronic toxicity tests conducted during 2003 are summarized in Table T.2. All red abalone and topsmelt tests were within compliance limits throughout the year. In contrast, a single giant kelp growth bioassay exceeded the compliance limit for a sample collected on May 4. Consequently, the City began bi-weekly accelerated testing in May, which continued through August 2003. The results from this accelerated testing schedule and all subsequent kelp tests were within established NPDES limits for the remainder of 2003.

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**TABLE T.1**

Results and compliance summary of acute bioassays conducted during 2003. Data are presented in toxic unit acute (TUa) values. The California Ocean Plan compliance limit is 6.5 TUa.

Sample Date	Topsmelt 96-Hour Bioassay	Mysid 96-Hour Bioassay
<b>96-hr Static-Renewal</b>		
13-Jan	2.6	3.5
7-Jul	2.2	1.7
N	2	2
No. in compliance	2	2
Mean TUa	2.4	2.6

**TABLE T.2**

Results of chronic toxicity testing of Point Loma Wastewater Treatment Plant effluent from January through December 2003. Data are presented in toxic unit chronic (TUc) values. NPDES permit limit is 205 TUc. N.V. = Not valid

Sample Date	<b>Chronic</b>				
	Giant Kelp		Red Abalone	Topsmelt	
	Germination	Development	Development	Survival	Growth
4-Jan	64	64	64	-	-
27-Jan	-	-	-	64	64
5-Feb	64	64	64	-	-
20-Feb	-	-	-	64	64
10-Mar	64	64	64	64	64
2-Apr	64	64	64	-	-
4-May	64	667	64	-	-
19-May	204	64	-	-	-
4-Jun	N.V.	N.V.	64	-	-
16-Jun	64	64	-	-	-
30-Jun	N.V.	N.V.	-	-	-
14-Jul	64	64	64	-	-
28-Jul	64	64	-	-	-
7-Aug	114	64	64	-	-
18-Aug	64	64	-	-	-
8-Sep	64	64	N.V.	-	-
18-Sep	-	-	N.V.	-	-
2-Oct	114	64	64	-	-
3-Nov	64	64	64	-	-
5-Dec	64	114	-	-	-
16-Dec	-	-	64	-	-
N	15	15	11	3	3
No. in compliance	15	14	11	3	3
Mean TUc	80	108	64	64	64





E. 6-Year Tables.

Results of the determination of selected parameters on a weekly basis for the past 6-years.

ARSENIC (ug/L) 1998																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	1.8	1	2.6	1.3	2.1	1.6	2	1.2	1.9	0.9	1.5	0.9	1.7	1.2	2.3	1.3	2.2	1.2	2.1	1.2	1.9	1.3	3.6	1.2
2	1.8	0.8	3.3	1.3	1.9	1.2	1.8	1.1	2.2	1.2	1.3	1.1	1.9	1.2	2.4	1.5	3.2	1.3	2.2	1	1.5	1.2	2.1	1.6
3	1.8	0.8	2.8	2.3	1.9	1.4	1.4	0.9	1.6	0.9	1.3	1.1	1.7	1.2	2.2	1.4	2.9	1.4	2.3	1.6	2.1	1.1	1.3	0.8
4	2.8	1.1			2.1	1	1.4	0.8	1.4	1.1	1.8	0.7			2.4	1.4	1.9	1.2	2	1.1	1.8	1.1	1.4	0.7
Average	2	0.9	2.9	1.6	2	1.3	1.7	1	1.8	1	1.5	1	1.7	1.2	2.3	1.4	2.6	1.3	2.1	1.2	1.9	1.2	2.1	1.1

ARSENIC (ug/L) 1999																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	1.5	0.8	1.8	1	1.4	0.8	1.3	0.8	1.3	0.9	1.7	1	1.6	1.1	1.7	1.1	1.8	1.1	1.9	1.5	1.5	0.7	1.7	0.9
2	1.6	0.8	1.7	0.8	1.6	0.9	1.6	1	1.6	0.9	1.9	1.2	2	1.2	2	1.1	1.7	1.1	1.6	1.2	1.9	1	1.5	1
3	1.6	0.9	1.6	0.8	1.4	0.8	1.7	0.7	1.5	1.2	1.5	1	1.6	1.1	1.9	1.1	1.8	1.2	2.1	1.4	2	1.2	1.2	1
4			1.7	1.1	2.9	1.3	2	1.1			1.5	1	1.5	1.4	1.7	1.1	1.4	1	2.1	1			1.1	0.9
Average	1.6	0.8	1.7	0.9	2	1.3	1.7	0.9	1.5	1	1.6	1.1	1.7	1.2	1.8	1.1	1.7	1.1	1.9	1.3	1.8	1	1.4	0.9

ARSENIC (ug/L) 2000																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	1.4	0.6	1.6	0.9	1.1	1.2	1.5	0.8	2.1	<0.2	0.3	<0.2	1.2	0.7	1.2	0.9	1.2	1	1.3	1.1	1.6	0.9	1	0.4
2	1.5	0.7	1.4	1	1.2	0.8	1.5	0.9	1.5	<0.2	1.4	1.1	1.5	0.8	1.1	1	1.3	1	1.3	0.8	1.2	1.1	1.2	0.7
3	1.3	0.8	1.5	1.1	0.9	0.7	1.4	0.9	2.3	0.2	1.1	0.9	1.3	0.8	1	0.7	0.8	0.7	1.4	1	1.3	0.9	1	0.7
4	1.2	0.7	1.4	0.8	1.1	0.6			0.2	0.7	1.5	0.8	1.3	1.2	2.2	1.4			1.5	1.1	0.9	0.8	1.2	0.9
Average	1.3	0.8	1.5	0.9	1.1	0.8	1.5	0.9	1.5	0.2	1.1	0.7	1.3	0.9	1.8	1.1	1.1	0.9	1.4	1	1.2	0.9	1.1	0.7

ARSENIC (ug/L) 2001																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	1.1	0.7	1.3	0.8	1.3	1	0.9	<0.2	1.2	0.8	4.3	1	1.2	0.7	1.6	1.1	1.6	1.1	2	0.9	1	1.1	1.7	0.9
2	1.5	0.8	1.5	0.9	0.7	1	0.7	0.5	1.2	1	1.1	0.7	1.1	0.7	1.4	0.9	0.7	1.2	1	0.3	1.7	1.1	1.3	0.6
3	0.8	0.6	0.9	0.6	1.1	<0.2	1.1	0.6	1	1	1.4	1	1.3	0.9	1.6	1.1	1.4	0.8	1.1	1	1.8	1.1	1.1	0.8
4	1.4	1			0.6	0.4	0.8	0.4	1.2	0.8	1.4	1			1.5	1.1	0.6	0.2	1.5	1.1	1.5	0.9	1.4	0.8
Average	1.2	0.8	1.2	0.8	0.9	0.6	0.9	0.4	1.1	0.9	2.1	0.9	1.2	0.8	1.5	1.1	1.1	0.8	1.4	0.8	1.5	1	1.3	0.8

ARSENIC (ug/L) 2002																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	0.88	0.65	1.4	0.89	1.1	0.62	1.6	1.54	1.2	1.14	1.74	0.98	2.31	1.89	1.23	1.17	1.73	1.72	1.86	1.52	1.87	1.56	1.29	0.91
2	1.33	0.84	1.72	0.92	1.16	0.9	0.99	0.57	1.83	1.34	1.53	0.9	2.96	2.34	2.76	2.25	2.18	1.95	1.06	0.74	1.88	1.58	2.73	2.36
3	1.21	1.09	1.05	0.65	0.61	0.69	1.57	1.59	2.34	1.56	2.84	2.74	2.65	1.74	2.13	1.14	1.87	1.55	1.86	1.74	1.12	0.75	1.53	1.02
4			1.38	1.13	0.72	0.82	1.14	0.66			1.44	1.06	1.83	1.46	2.81	1.87	1.2	0.81	2.33	2.41			1.52	0.76
Average	1.14	0.86	1.39	0.9	0.9	0.76	1.33	1.09	1.79	1.35	1.89	1.42	2.44	1.86	2.23	1.61	1.75	1.51	1.78	1.6	1.62	1.3	1.77	1.26

ARSENIC (ug/L) 2003																								
Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	1.00	0.75	1.30	0.69	1.37	0.86	1.04	0.55	2.49	2.44	2.03	1.32	0.72	<0.40	1.87	1.84	1.56	1.72	1.13	0.86	1.06	0.62	1.84	2.10
2	1.89	1.27	2.12	1.30	3.06	0.70	2.26	2.07	1.99	1.37	1.91	1.38	0.86	0.76	1.66	1.86	1.22	1.01	1.55	0.98	2.77	2.06	0.92	0.72
3	1.00	0.48	1.79	1.53	1.60	0.93	2.78	1.78	2.98	2.16	0.99	0.64	0.97	0.59	1.47	1.62	2.82	2.13	1.68	1.48	1.22	1.11	1.57	1.70
4	1.77	1.10	1.99	1.03			1.71	1.83	1.83	1.35	1.76	1.34	1.28	1.24	0.76	0.79			2.19	2.10	0.88	0.67	1.97	1.93
Average	1.42	0.90	1.80	1.14	2.01	0.83	1.95	1.56	2.32	1.83	1.67	1.17	0.96	0.65	1.44	1.53	1.87	1.62	1.64	1.36	1.48	1.12	1.58	1.61

CADMIUM (ug/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	<1.0	<1.0	<1.0	<1.0	2.1	1.6	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	2	<1.0	<1.0	<1.0	<1.0	<1.0
3	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4	<1.0	<1.0			1.5	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0						2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Average	<1.0	<1.0	<1.0	<1.0	1.2	0.4	<1.0	<1.0	<1.0	<1.0	1.5	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	0.9	<1.0	<1.0	<1.0	<1.0	0.8

CADMIUM (ug/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			<1.0	<1.0
Average	<1.0	<1.0	<1.0	<1.0	0.3	<1.0	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.3	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.6

CADMIUM (ug/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	1	1.1	1.7	<1.0	1	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	1.3	<1.0	1.6	<1.0	<1.0	<1.0
2	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	1.5	<1.0	<1.0	1.7	<1.0	1.4	<1.0	<1.0	<1.0
3	1.2	<1.0	1	<1.0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	1.4	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	2.8	<1.0
4	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0
Average	1.3	0.3	0.7	<1.0	0.8	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	0.4	0.7	0.4	0.4	0.5	0.8	0.4	<1.0	<1.0	<1.0	0.7

CADMIUM (ug/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	<1.0	<1.0	2.8	<1.0	<1.0	2.2	1.3	<1.0	2.8	<1.0	2.2	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3	<1.0	2.5	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	2.8	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4	<1.0	<1.0			<1.0	2.3	1.4	<1.0	2.5	<1.0	1.8	1.3			2.8	1	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0
Average	<1.0	0.6	1.8	<1.0	<1.0	1.1	0.7	<1.0	2.6	0.7	1	0.3	<1.0	<1.0	1.6	0.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.4	<1.0

CADMIUM (ug/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	1.3	<1.0	<1.0	<1.0	2.5	<1.0	2.1	<1.0	<1.0	<1.0	1.3	1.6	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	3.8	<1.0	<1.0	<1.0	<1.0	1.4	1.6	<1.0	<1.0
3	1	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	1.2	<1.0	2.2	<1.0	1.5	2.4	<1.0	<1.0	1	<1.0	1.2	1.8	1.7	<1.0
4			1.5	<1.0	<1.0	<1.0	2.5	1.8			<1.0	<1.0	<1.0	3.4	<1.0	4.5	<1.0	<1.0	1.1	<1.0			<1.0	<1.0
Average	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	0.6	<1.0	1.6	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0

CADMIUM (ug/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	ND	ND	ND	ND	ND	1.3	<1.0	ND	ND	ND	ND	ND	2.4	1.0	ND	ND	1.5	ND	ND	ND	ND	ND	1.4	ND
2	<1.0	<1.0	ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND	<1.0	ND	ND	ND	<1.0	ND	2.0	ND	ND	ND	ND	ND
3	2.5	2.8	ND	ND	<1.0	2.2	ND	ND	2.5	ND	<1.0	ND	<1.0	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND
4	<1.0	2.0	1.4	ND			ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND			ND	ND	ND	1.1	ND	1.3
Average	0.6	1.2	0.4	ND	0.0	1.2	0.0	ND	1.0	ND	0.5	ND	0.6	0.3	ND	ND	0.5	ND	0.8	ND	ND	0.6	ND	0.3

CHROMIUM (ug/L) 1998

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	9	<5	7	<5	7	<5	<5	<5	58	<5	<5	<5	13	<5	<5	<5	16	<5	7	<5	12	<5	13	<5
2	14	<5	10	<5	<5	9	<5	<5	6	<5	<5	<5	13	<5	8	<5	12	<5	<5	<5	11	<5	10	<5
3	11	<5	9	9	10	8	<5	<5	<5	<5	<5	<5	14	<5	14	<5	12	<5	9	<5	15	<5	14	<5
4	15	<5			11	<5	<5	<5	<5	<5	<5	<5			12	<5	14	5	12	<5	9	<5	8	<5
Average	12	<5	9	3	7	4	<5	<5	16	<5	<5	<5	13	<5	9	<5	14	1	7	<5	11	<5	11	<5

CHROMIUM (ug/L) 1999

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	65	<5	8	<5	18	<5	<5	<5	<5	<5	8	<5	7	<5	10	6	<5	<5	<5	<5	<5	<5	<5	<5
2	13	<5	17	<5	9	6	<5	<5	<5	<5	12	<5	<5	<5	14	<5	8	8	<5	<5	<5	<5	7	<5
3	10	<5	12	<5	13	<5	<5	<5	8	<5	11	<5	5	<5	9	<5	<5	<5	<5	<5	<5	<5	7	<5
4			9	<5	10	<5	<5	<5			6	<5	<5	<5	14	7	<5	<5	<5	<5	<5		7	<5
Average	29	<5	11	<5	13	2	<5	<5	3	<5	9	<5	3	<5	12	3	2	2	<5	<5	<5	<5	5	<5

CHROMIUM (ug/L) 2000

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	6	<5	<5	<5	<5	<5	14	<5	11	<5	12	<5	<5	<5	6	<5	8	<5	7	<5	6	<5	15	<5
2	8	<5	<5	<5	<5	<5	7	<5	9	<5	7	<5	<5	<5	<5	<5	11	<5	13	<5	9	<5	16	<5
3	10	<5	8	<5	<5	<5	7	<5	9	<5	8	<5	<5	30	9	<5	11	<5	7	<5	<5	<5	16	9
4	<5	<5	<5	<5	<5	<5			13	<5	10	<5	<5	<5	7	<5		<5	<5	<5	<5	<5	17	7
Average	6	<5	2	<5	<5	<5	9	<5	10	<5	9	<5	<5	7	6	<5	10	<5	7	<5	<5	<5	16	4

CHROMIUM (ug/L) 2001

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	15	32	16	12	<5	<5	<5	<5	11	<5	8	<5	<5	<5	5	<5	14	<5	8	<5	15	<5	<5	<5
2	9	9	<5	<5	9	<5	<5	<5	<5	<5	11	<5	12	<5	6	<5	7	<5	<5	<5	<5	<5	<5	<5
3	<5	8	<5	<5	7	<5	<5	<5	11	<5	9	<5	11	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5
4	16	21			11	6	<5	<5	6	<5	<5	6			<5	<5	6	<5	8	<5	<5	<5	<5	<5
Average	11	18	5	4	7	2	<5	<5	7	<5	7	1	8	<5	3	<5	7	<5	<5	<5	4	<5	<5	<5

CHROMIUM (ug/L) 2002

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	6.3	<5	<5	<5	6.8	<5	<5	<5	<5	<5	9.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	9.3	<5	8.3	<5
2	8.3	<5	<5	<5	7.4	<5	9.7	<5	<5	<5	7.8	<5	8.9	7.2	8	<5	<5	<5	<5	<5	6.5	<5	7.2	<5
3	5.4	<5	<5	<5	<5	<5	7.1	<5	8.8	<5	13.7	<5	6.8	<5	<5	<5	<5	<5	<5	<5	<5	<5	6.1	<5
4			6	<5	<5	<5	<5	<5			6.7	<5	<5	<5	11.4	<5	<5	<5	<5	<5			<5	<5
Average	6.7	<5	<5	<5	<5	<5	<5	<5	<5	<5	9.3	<5	<5	<5	<5	<5	<5	<5	<5	<5	5.3	<5	5.4	<5

CHROMIUM (ug/L) 2003

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	ND	<5.0	17.3	ND	8.1	ND	6.1	ND	10.0	<5	<5.0	<5.0	<5.0	ND	11.8	7.5	ND	ND	8.1	5.7	ND	ND	ND	ND
2	<5.0	ND	6.1	ND	6.5	ND	6.9	ND	<5.0	ND	<5.0	<5.0	6.0	<5.0	10.5	<5.0	ND	ND	5.2	ND	6.7	ND	14.2	ND
3	20.1	ND	7.9	ND	6.8	ND	ND	<5.0	5.9	ND	8.7	ND	11.5	13.6	<5.0	<5.0	ND	ND	ND	ND	5.8	9.6	9.5	ND
4	9.2	ND	<5.0	ND			20.7	ND	8.2	ND	<5.0	ND	9.5	<5.0	13.4	<5.0			ND	ND	ND	ND	8.9	<5.0
Average	7.3	0.0	7.8	ND	7.1	ND	8.4	0.0	6.0	ND	2.2	0.0	6.8	3.4	8.9	1.9	ND	ND	3.3	1.4	3.1	2.4	8.2	0.0

COPPER (ug/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	97	198	99	31	75	48	74	56	192	51	88	46	122	62	96	82	132	48	81	58	121	49	107	68
2	117	66	129	36	165	40	111	38	85	18	76	40	123	57	93	69	108	58	87	45	114	41	116	44
3	159	59	126	63	98	49	101	96	131	27	100	30	94	35	137	48	150	55	111	29	95	30	127	74
4	114	28		103	49	89	70	92	43	142	222			113	32	129	29	104	16	83	29	113	21	
Average	122	88	118	43	110	47	94	65	125	35	102	85	113	51	110	58	130	48	96	37	103	37	116	52

COPPER (ug/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	96	60	97	98	159	75	117	46	149	55	103	72	133	64	99	44	118	45	108	75	136	73	93	31
2	119	88	110	40	156	43	88	40	133	45	129	70	133	159	143	24	169	60	104	72	137	53	116	120
3	90	29	91	65	121	40	112	70	246	124	178	45	167	58	107	117	116	34	130	33	142	46	97	31
4			120	66	106	37	82	46			119	33	128	56	96	38	235	155	131	115			112	68
Average	102	59	105	67	136	49	100	51	176	75	132	55	140	84	111	56	160	74	118	74	138	57	105	63

COPPER (ug/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	150	49	158	58	206	47	88	32	215	45	203	95	156	199	156	52	280	74	137	60	209	106	167	155
2	153	60	125	51	154	72	185	29	219	59	139	133	73	213	191	133	192	56	291	66	215	150	135	67
3	115	47	157	73	164	56	198	93	131	41	147	53	210	366	162	48	133	39	217	149	137	83	204	58
4	127	75	107	57	180	79			169	120	250	52	197	98	174	66			201	85	188	147	157	51
Average	136	58	137	60	176	64	157	51	184	66	185	83	159	219	171	75	202	56	212	90	187	122	166	83

COPPER (ug/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	193	114	185	98	174	121	223	99	152	63	165	226	160	90	185	79	253	73	329	63	129	26	196	84
2	202	141	158	205	162	61	168	90	178	177	268	69	164	68	327	185	138	70	234	121	169	110	181	81
3	194	93	197	157	204	127	177	84	192	163	207	95	178	159	323	174	274	149	122	256	109	94	198	91
4	186	112		165	92	185	88	270	102	131	88				157	141	197	176	218	91	162	109	185	85
Average	194	115	180	153	176	100	188	90	198	126	193	120	167	106	248	145	216	117	226	133	142	85	190	85

COPPER (ug/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	140	49	126	42	256	185	156	59	130	39	139	107	174	115	120	39	117	44	127	51	202	38	159	60
2	194	49	223	72	243	45	161	46	190	101	139	76	252	67	144	65	156	219	179	89	199	134	159	89
3	246	83	140	154	144	122	135	45	104	92	143	41	231	29	197	75	119	76	143	78	153	77	143	45
4			140	100	129	63	141	91			147	120	110	82	199	94	92	73	206	49			105	20
Average	193	60	157	92	195	104	148	60	141	77	142	86	192	73	165	68	121	103	164	67	185	83	142	54

COPPER (ug/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	111	18	129	16	175	36	186	42	120	44	125	101	313	175	139	76	244	237	85	54	145	325	107	88
2	146	42	106	81	167	43	149	77	132	43	172	48	138	63	218	64	138	81	94	182	161	46	183	237
3	107	52	146	33	156	87	130	69	125	61	159	36	291	79	131	74	115	170	78	51	198	69	372	79
4	98	28	126	35			161	60	162	49	160	57	188	53	156	71			127	21	150	60	107	54
Average	116	35	127	41	166	55	157	62	135	49	154	61	233	93	161	71	166	163	96	77	164	125	192	115



NICKEL (ug/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	29	20	<14	<14	29	<14	<14	<14
2	19	<14	<14	<14	<14	21	<14	31	<14	<14	<14	<14	<14	<14	<14	<14	26	<14	<14	<14	<14	<14	<14	<14
3	20	<14	<14	<14	<14	17	<14	<14	<14	18	<14	<14	<14	<14	<14	<14	<14	<14	22	<14	31	<14	<14	<14
4	<14	<14	<14	<14	<14	<14	16	<14	14	<14	<14	<14	<14	<14	20	<14	<14	<14	17	<14	<14	25	<14	<14
Average	10	<14	<14	<14	<14	10	<14	12	<14	8	<14	<14	<14	<14	5	<14	14	9	6	<14	21	<14	<14	<14

NICKEL (ug/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	45	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	20	<14	<14	<14	<14	<14	<14	<14	20	<14
2	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	16	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	27	<14
3	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	21	<14
4	<14	<14	<14	<14	<14	<14	17	<14	<14	17	<14	<14	<14	<14	<14	<14	<14	<14	15	<14	<14	<14	<14	29
Average	15	<14	<14	<14	<14	<14	4	<14	<14	<14	8	<14	<14	<14	5	<14	<14	4	<14	<14	<14	<14	17	7

NICKEL (ug/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<14	<14	<14	<14	<14	<14	<14	19	15	<14	<14	<14	19	19	19	<14	<14	<14	15	<14	<14	<14	<14	<14
2	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	16	19	31	72	<14	<14	30	<14	<14	<14	<14	<14
3	<14	<14	<14	<14	<14	<14	16	<14	19	24	<14	<14	<14	26	34	33	<14	<14	<14	<14	<14	<14	<14	<14
4	<14	<14	<14	<14	<14	16	<14	<14	19	<14	15	<14	16	<14	26	<14	<14	<14	<14	<14	<14	<14	<14	<14
Average	<14	<14	<14	<14	<14	4	5	6	13	6	4	<14	13	16	28	26	<14	<14	11	<14	<14	<14	<14	<14

NICKEL (ug/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<14	22	17	<14	<14	<14	<14	17	<14	<14	<14	<14	15	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
2	<14	15	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	29	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
3	<14	<14	21	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	18	<14	<14	<14	<14	<14	<14	<14	<14
4	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
Average	<14	9	13	<14	<14	<14	<14	4	<14	<14	<14	<14	15	<14	<14	5	<14	<14	<14	<14	<14	<14	<14	<14

NICKEL (ug/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	20	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
2	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
3	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	17	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
4	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14
Average	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14	<14

NICKEL (ug/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<14	ND	<14	ND	ND	ND	ND	ND	34	ND	ND	<14	18	ND	ND	ND	<14	ND	ND	ND	ND	ND	ND	ND
2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<14	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	ND	ND	<14	ND	<14	ND	<14	<14	ND	ND	<14	ND	<14	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	ND	ND	ND	<14	<14	ND	<14	ND	ND	ND	ND	ND	<14	<14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average	0	ND	0	0	0	ND	0	0	9	ND	0	0	9	5	ND	ND	0	ND	ND	ND	ND	ND	ND	ND

MERCURY (ug/L) 1998																								
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<0.27	<0.27	<0.27	<0.27	0.42	0.38	0.66	0.43	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.64	<0.27	0.77	0.51
2	<0.27	<0.27	0.37	<0.27	0.3	<0.27	0.48	<0.27	0.51	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.37	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
3	0.89	<0.27	<0.27	<0.27	0.48	<0.27	<0.27	<0.27	0.57	<0.27	<0.27	<0.27	0.3	<0.27	0.37	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
4	0.39	<0.27			<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.99	<0.27	0.33	<0.27	<0.27	<0.27	<0.27	0.32	0.45	<0.27	<0.27	<0.27
Average	0.32	<0.27	0.12	<0.27	0.3	0.1	0.29	0.11	0.27	<0.27	0.25	<0.27	0.1	<0.27	0.18	<0.27	0.09	<0.27	0.08	0.11	0.16	<0.27	0.19	0.13

MERCURY (ug/L) 1999																								
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.34	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
2	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.54	0.44	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.41	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
3	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.48	<0.27	<0.27	<0.27	<0.27	<0.27	0.55	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
4			<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.42	<0.27		<0.27	<0.27
Average	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.26	0.11	<0.27	<0.27	0.14	<0.27	<0.27	<0.27	0.19	<0.27	0.11	<0.27	0.11	<0.27	<0.27	<0.27	<0.27	<0.27

MERCURY (ug/L) 2000																								
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<0.27	<0.27	0.54	<0.27	<0.27	<0.27	<0.27	<0.27	0.86	<0.27	<0.27	<0.27	0.33	<0.27	<0.27	<0.27	<0.27	<0.27	0.71	<0.27	<0.27	<0.27	<0.27	<0.27
2	<0.27	<0.27	<0.27	<0.27	0.46	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.27	<0.27	<0.27	<0.27	<0.27
3	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.35	<0.27	0.38	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	1.08	<0.27	0.37	<0.27	<0.27	<0.27	<0.27	<0.27
4	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27			0.46	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27			<0.27	<0.27	<0.27	<0.27	0.4	<0.27
Average	<0.27	<0.27	0.14	<0.27	0.12	<0.27	0.12	<0.27	0.43	<0.27	<0.27	<0.27	0.08	<0.27	<0.27	<0.27	0.36	<0.27	0.27	0.07	<0.27	<0.27	0.1	<0.27

MERCURY (ug/L) 2001																								
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.36	<0.27	<0.27	<0.27	0.46	<0.27	0.28	<0.27	0.39	<0.27	<0.27	<0.27	<0.27	<0.27
2	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.42	<0.27	0.3	<0.27	<0.27	<0.27	0.34	<0.27	0.39	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
3	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.59	<0.27	0.34	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.32	<0.27	<0.27	<0.27
4	<0.27	<0.27			<0.27	<0.27	<0.27	<0.27	0.41	<0.27	0.29	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.47	<0.27	<0.27	<0.27
Average	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.36	<0.27	0.32	<0.27	<0.27	<0.27	0.2	<0.27	0.17	<0.27	0.1	<0.27	0.2	<0.27	<0.27	<0.27

MERCURY (ug/L) 2002																									
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	
1	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	0.14	0.24	<0.09
2	0.31	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.31	0.1	<0.09	<0.09
3	0.42	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.32	<0.09	0.2	<0.09
4			<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		0.09	<0.09	<0.09
Average	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.27	<0.27	<0.27	<0.27	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.28	<0.09	0.13	<0.09

MERCURY (ug/L) 2003																								
Week	JAN	JAN	FEB	FEB	MAR	MAR	APR	APR	MAY	MAY	JUN	JUN	JUL	JUL	AUG	AUG	SEP	SEP	OCT	OCT	NOV	NOV	DEC	DEC
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.25	ND	0.27	ND	0.51	ND	0.22	ND	ND	ND	0.23	ND	0.23	ND	0.22	ND	0.37	ND	ND	ND	0.12	ND	0.28	ND
2	0.13	ND	0.32	ND	0.11	ND	0.19	ND	0.64	0.20	0.16	ND	0.14	ND	0.25	ND	0.30	0.32	0.16	ND	0.31	ND	ND	ND
3	ND	ND	0.42	ND	0.51	ND	0.22	<0.09	1.14	0.70	0.27	ND	0.17	ND	0.14	ND	1.24	ND	0.15	ND	0.42	ND	ND	ND
4	0.11	ND	ND	ND			0.36	ND	0.20	ND	ND	ND	0.29	0.26	ND	ND			ND	ND	NA	NA	0.10	ND
Average	0.12	ND	0.25	ND	0.38	ND	0.25	0.00	0.50	0.23	0.17	ND	0.21	0.07	0.15	ND	0.64	0.11	0.08	ND	0.28	ND	0.10	ND

SILVER (ug/L) 1998

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	27.2	10.8	<6.6	<6.6	<6.6
2	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
3	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	6.7	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	13.1	8.8	<6.6	9	<6.6
4	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9.4	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	11.1	<6.6	<6.6
Average	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	1.7	<6.6	2.4	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	10.1	4.9	2.8	2.3	<6.6

SILVER (ug/L) 1999

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	<6.6	<6.6	<6.6	<6.6	9.9	<6.6	<6.6	<6.6	8.3	<6.6	<6.6	7.9	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	27.2	<6.6	<6.6	<6.6	<6.6
2	<6.6	<6.6	<6.6	<6.6	16	7.6	<6.6	<6.6	6.6	<6.6	<6.6	8.8	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9	<6.6	<6.6	<6.6
3	<6.6	<6.6	<6.6	<6.6	11.9	<6.6	<6.6	<6.6	14.2	<6.6	<6.6	11.2	<6.6	<6.6	10.9	<6.6	<6.6	<6.6	<6.6	13.1	<6.6	<6.6	<6.6	<6.6
4	<6.6	<6.6	<6.6	<6.6	14.2	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	6.7	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
Average	<6.6	<6.6	<6.6	<6.6	9.5	5.5	<6.6	<6.6	9.7	<6.6	<6.6	7	<6.6	<6.6	2.7	1.7	<6.6	<6.6	<6.6	10.1	3	<6.6	<6.6	<6.6

SILVER (ug/L) 2000

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	27.2	<6.6	<6.6	9.8	<6.6
2	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
3	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	12.3	<6.6	<6.6	<6.6	<6.6	<6.6	13.1	<6.6	<6.6	6.7	<6.6
4	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	7.8	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
Average	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	5	<6.6	<6.6	<6.6	<6.6	<6.6	10.1	<6.6	<6.6	4.1	<6.6

SILVER (ug/L) 2001

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	<6.6	<6.6	<6.6	<6.6	<6.6	1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	12.1	<6.6	7.4	<6.6	<6.6	<6.6	<6.6	<6.6	7	<6.6	<6.6	<6.6
2	<6.6	<6.6	<6.6	9.1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	15.7	<6.6	8.1	<6.6	<6.6	<6.6	<6.6	<6.6	20.9	<6.6	<6.6	<6.6
3	<6.6	<6.6	<6.6	11	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	11.5	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
4	<6.6	<6.6	<6.6	13.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
Average	<6.6	<6.6	<6.6	6.7	3.4	2.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9.3	<6.6	6.8	<6.6	<6.6	<6.6	<6.6	<6.6	7	<6.6	<6.6	<6.6

SILVER (ug/L) 2002

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	18.2	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6
2	<6.6	<6.6	9.3	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	11.1	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9.8	<6.6
3	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	8.8	<6.6	<6.6	<6.6	7.5	19.7	<6.6	<6.6	8.7	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9.4	<6.6
4	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	7.5	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	11.6	<6.6
Average	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	9.5	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	<6.6	7.7	<6.6

SILVER (ug/L) 2003

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2	ND	ND	ND	ND	ND	ND	<6.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.6	7.6	ND
3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4	ND	ND	ND	ND	ND	ND	ND	7.5	ND	ND	ND	ND	ND	ND	ND	<6.6	ND	ND	ND	ND	ND	ND	ND	ND
Average	ND	ND	ND	ND	ND	ND	0.0	ND	1.9	ND	ND	ND	ND	ND	ND	0.0	ND	ND	ND	ND	ND	1.7	1.9	ND



ZINC (ug/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	116	45	134	29	117	4	124	241	148	15	127	52	128	32	135	40	179	38	126	154	158	33	196	44
2	174	36	147	43	168	40	132	33	132	27	131	63	127	31	124	35	327	27	157	75	155	33	148	40
3	129	44	146	60	148	57	130	31	160	20	148	54	132	30	184	29	169	29	186	61	184	108	163	42
4	185	32			144	50	132	33	138	104	173	60			175	30	207	31	180	56	141	46	143	60
Average	151	39	142	44	144	38	130	85	145	42	145	57	129	31	155	34	221	31	162	87	160	55	163	47

ZINC (ug/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	140	29	107	32	154	40	112	31	140	41	159	40	182	29	176	70	307	35	162	33	118	46	132	25
2	153	44	182	38	146	36	119	34	122	26	181	34	142	37	185	62	182	48	184	36	160	43	139	257
3	122	31	147	30	124	33	118	36	143	34	165	45	147	36	169	47	146	54	148	38	147	68	125	56
4			139	38	161	33	124	26			174	77	163	52	143	42	151	34	140	34			108	42
Average	138	35	144	35	146	36	118	32	135	34	170	49	159	39	168	55	197	43	159	35	142	52	126	95

ZINC (ug/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	126	32	182	62	142	37	136	35	182	39	144	24	226	135	166	25	140	27	115	22	152	26	165	42
2	181	33	190	69	179	33	110	26	179	33	126	23	261	150	154	21	169	25	270	23	141	27	175	31
3	152	50	151	67	148	30	116	27	148	39	155	23	249	151	158	27	130	20	137	29	134	34	171	33
4	150	43	175	69	147	58			154	31	170	28	222	127	144	23			129	29	117	33	171	35
Average	152	40	175	67	154	40	121	29	166	36	149	25	240	141	156	24	146	24	163	26	136	30	171	35

ZINC (ug/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	145	28	142	34	124	36	166	29	157	41	188	66	133	25	152	29	111	20	153	26	163	30	142	29
2	124	30	129	36	123	34	141	29	133	39	157	27	141	28	277	30	135	25	142	22	160	24	113	25
3	122	31	138	35	109	33	225	57	160	46	154	39	143	24	269	29	158	37	132	23	124	25	102	21
4	121	31			135	28	142	46	155	42	124	41			204	27	147	35	121	20	134	24	135	21
Average	128	30	136	35	123	33	169	40	151	42	156	43	139	26	226	29	138	29	137	23	145	26	123	24

ZINC (ug/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	140	26	122	29	138	28	134	31	144	28	139	29	172	25	125	18	98	30	110	29	178	32	119	21
2	152	31	158	40	131	25	140	26	144	21	127	21	189	28	130	24	164	81	126	31	122	25	116	23
3	149	33	120	28	148	30	146	29	126	25	161	28	180	27	139	19	154	24	123	41	128	14	121	23
4			140	42	138	26	149	26			112	23	113	22	142	30	116	18	182	33			117	16
Average	147	30	135	35	139	27	142	28	138	25	135	25	164	26	134	23	133	38	135	34	143	24	118	21

ZINC (ug/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	112	ND	120	9	106	27	156	23	142	24	130	26	168	26	152	9	172	23	140	13	138	22	148	27
2	115	9	132	15	127	28	170	35	154	21	135	19	157	26	145	19	148	19	139	20	139	27	231	81
3	104	,4	105	11	153	29	144	45	145	26	142	12	158	26	135	12	124	25	132	22	152	23	135	22
4	88	<4	115	11			156	31	144	23	118	20	130	30	124	12			126	16	124	21	133	28
Average	105	2	118	12	129	28	157	34	146	24	131	19	153	27	139	13	148	22	134	18	138	23	162	40

AMMONIA (mg/L) 1998

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	25.4	25.6	20.5	20.8	24.3	25.9	NA	NA	28.2	27	28.3	28.1	25.9	25.4	26.9	25.3	21.3	22.6	18.7	19.1	28.1	29.2	27.3	27.4
2	23.5	22.7	19.7	21.5	25.4	24.6	24.1	24.1	26	25.4	27.5	27.2	27.5	27.9	22.9	20.2	22.6	21.3	23	21.1	23.3	24.4	27.4	25.7
3	22.5	22.1	17.5	17.5	23.1	26.2	26.7	27.1	27.6	27.5	28	28.3	26.2	26.1	27.2	27.1	24	23.8	26.7	26.6	26.6	24.5	25.9	25.8
4	25.6	25.2			23.9	24.8	27.9	28.1	26.8	26.8	23.7	22.4			26.9	26.1	20.6	22.4	24.3	24.6	25.8	25.6	28.1	25
Average	24.3	23.9	19.2	19.9	24.2	25.4	19.7	19.8	27.2	26.7	26.9	26.5	26.5	26.5	26	24.7	22.1	22.5	23.2	22.9	26	25.9	27.2	26

AMMONIA (mg/L) 1999

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	25.4	24.1	25	24.4	27.5	25.1	24.5	23.8	26.3	25	30.5	28.7	31.5	30.7	26.7	23.1	15.1	34	27.1	27.7	28.5	27.8	31.4	31
2	32.2	27.2	27.3	26.7	24.1	25.5	28.3	28	26.5	26.3	27.3	25.4	26.4	26.1	27.9	27.1	26.2	24.9	28.2	27.7	30.4	30.4	28.4	28.5
3	27.7	28.4	24.4	20.3	28.6	28.7	27.8	27.9	30.1	27.8	30.7	27.8	26.2	27.6	29.7	27.9	27.8	28.9	26.1	26.6	29.3	29.1	26.4	26.4
4			30.9	28.4	26.5	25.9	28.7	27.3			28.8	26.3	28.8	26.3	25.8	25.3	27.8	20.5	25.3	24.5			29.4	26.7
Average	28.4	26.6	26.9	24.9	26.7	26.3	27.3	26.8	27.6	26.4	29.3	27.1	28.2	27.7	27.5	25.9	24.2	27.1	26.7	26.6	29.4	29.1	28.9	28.2

AMMONIA (mg/L) 2000

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	27	27.2	28.4	28.2	26.3	25.9	27.5	28.6	26.9	27.2	28.2	28.6	28	27.9	28.9	28.3	27.5	28.1	26.9	26.3	27.3	26.3	28.3	28.8
2	28.1	26.9	29.3	29.1	28	27.6	27.7	28.6	29	29.4	29.7	28	29	27.4	27	26.5	27	28.1	26.7	27.4	26	26.9	29.1	29.4
3	26.1	25.6	27.2	25.8	26.9	29.4	28	27.9	30.1	29.1	28.4	28.1	28.5	28.8	25.9	25	27	26.3	27.2	27	25.4	27	28.7	28.8
4	28.1	28	27.7	27.4	28.9	30.4			28.2	27.7	29.6	26.3	28.5	26.6	27.5	27.9			29.1	28	28	26.9	29.9	29.7
Average	27.3	26.9	28.2	27.6	27.5	28.3	27.3	28.4	28.6	28.4	29	27.8	28.5	27.7	27.3	26.9	24.2	27.5	27.5	27.2	26.7	26.8	29	29.2

AMMONIA (mg/L) 2001

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	30.2	28.8	29.9	32.5	26.6	26	30.3	28.7	29.1	29.1	28.8	28	29.4	25.2	30.5	29.7	28.2	27.9	29.8	29.1	28.1	26.9	28.3	27.7
2	24.4	23	24.2	24.4	23.5	24.4	27.6	27.9	29.9	29.4	29.8	29.4	30	29.7	28.6	29.1	28.4	27.6	28.6	28.6	28.4	27.4	26.3	26.9
3	27.7	27.2	27	26.7	26.9	26.6	30.1	30	29.2	29.7	29.1	28.6	29.4	28.3	28.4	28.1	30	29.4	27.7	27.6	28.9	31.2	29.7	28.3
4	28.5	26.9			27.2	27.2	31.4	31.5	27.5	27.4	28.3	28			27.9	25.8	28.8	28.3	29.3	28.1	30.5	29.7	27.6	26.9
Average	27.7	26.5	27	27.9	26.1	26.1	29.9	29.5	28.9	28.9	29	28.5	29.6	27.7	28.9	28.2	28.9	28.3	28.9	28.4	29	28.8	28	27.4

AMMONIA (mg/L) 2002

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	28	27.6	30.1	29.8	30.6	29	27.9	28.3	29.4	30.8	27.2	26	28	26.3	29.3	29	26.3	26	28	26.6	28.6	29.1	25.8	25.2
2	30.8	29.8	26.5	25.2	30.4	30.5	28.6	28	31.6	31.4	27.2	26.3	27.4	25.5	28.6	27.2	26.3	27.4	27.2	26.3	27.2	26.9	26.6	26.3
3	31.2	30.7	27.7	26	28.3	27.3	31.9	30.2	28.3	27.7	27.7	25.8	28.8	28.3	29.7	29.4	26.3	26.9	27.4	26.9	27.2	27.4	26.9	26.3
4			28.8	27.4	28.3	29.1	30	29.7			27.7	27.4	27.4	27.2	27.6	28	27.7	27.2	30	29.4			28	27.2
Average	30.3	29.4	28.3	27.1	29.4	29	29.6	29.1	29.8	30.0	27.5	26.4	27.9	26.8	28.8	28.4	26.7	26.9	28.2	27.3	27.7	27.8	26.8	26.3

AMMONIA (mg/L) 2003

Week	Inf	JAN Eff	Inf	FEB Eff	Inf	MAR Eff	Inf	APR Eff	Inf	MAY Eff	Inf	JUN Eff	Inf	JUL Eff	Inf	AUG Eff	Inf	SEP Eff	Inf	OCT Eff	Inf	NOV Eff	Inf	DEC Eff
1	27.4	26.6	29.7	28.6	26.6	26.0	26.9	28.0	27.4	28.0	30.8	31.1	29.7	30.2	28.6	28.0	27.7	28.0	28.8	29.7	26.0	26.0	28.0	26.9
2	27.4	27.7	26.6	25.5	20.2	20.4	30.2	30.0	29.7	30.2	30.0	30.2	29.4	28.8	27.4	28.0	28.6	28.6	26.9	28.3	28.3	28.3	28.6	29.1
3	23.0	22.7	25.2	22.7	27.4	26.9	26.9	27.2	28.8	29.4	29.7	30.5	29.7	30.8	29.1	28.3	29.4	29.4	24.9	26.0	25.5	25.5	26.3	26.6
4	27.2	26.9	24.9	24.6			28.8	30.5	30.5	30.5	27.7	29.1	28.8	28.6	27.7	27.2			26.9	27.4	*	*	29.4	28.3
Average	26.3	26.0	26.6	25.4	24.7	24.4	28.2	28.9	29.1	29.5	29.6	30.2	29.4	29.6	28.2	27.9	28.6	28.7	26.9	27.9	26.6	26.6	28.1	27.7

CYANIDE (mg/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.003	0.004	0.002	<0.002	0.003	0.004	0.008	0.009	0.004	0.004	0.004	0.012	0.003	0.007	0.007	0.008	0.003	0.003	0.004	0.01	0.004	0.004	0.004	0.004
2	0.003	0.005	0.003	0.003	0.004	0.004	0.002	0.003	0.005	0.005	0.004	0.007	0.004	0.004	0.009	0.006	0.003	0.002	0.004	0.003	0.009	0.006	0.005	0.005
3	0.005	0.003	0.002	0.003	0.007	0.013	0.002	<0.002	0.004	0.005	0.004	0.003	0.004	0.004	0.004	0.009	0.026	0.018	0.01	0.008	0.004	0.003	0.005	0.005
4	0.004	0.004			0.008	0.009	0.003	0.002	0.005	0.008	0.006	0.004			0.005	0.004	0.006	0.009	0.004	0.004	0.003	0.003	0.004	0.006
Average	0.004	0.004	0.002	0.002	0.006	0.007	0.004	0.004	0.005	0.005	0.005	0.006	0.004	0.005	0.006	0.007	0.01	0.008	0.006	0.006	0.005	0.004	0.005	0.005

CYANIDE (mg/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.004	0.009	0.004	0.006	0.005	0.005	0.003	0.003	0.004	0.003	0.003	0.004	0.003	0.007	0.004	0.004	<0.002	<0.002	0.013	0.014	0.003	0.01	0.003	0.004
2	0.003	0.007	0.005	0.007	0.008	0.011	0.003	0.003	0.003	0.003	0.004	0.004	0.003	<0.002	0.004	0.004	0.004	0.004	0.005	0.004	0.004	0.006	0.005	0.004
3	0.003	0.007	0.004	0.005	0.002	0.003	0.003	0.005	0.003	0.004	0.006	0.007	0.004	0.004	<0.002	0.005	0.004	0.001	0.004	0.004	0.003	0.005	0.006	0.007
4			0.005	0.007	0.003	0.002	0.007	0.005			0.019	0.017	0.005	0.003	<0.002	<0.002	0.008	0.006	0.003	0.003			0.004	0.003
Average	0.003	0.008	0.005	0.006	0.005	0.005	0.004	0.004	0.003	0.003	0.008	0.008	0.004	0.003	0.002	0.003	0.004	0.003	0.006	0.006	0.003	0.007	0.005	0.005

CYANIDE (mg/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.006	0.005	0.004	0.003	0.005	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.005	0.006	0.004	0.004	0.004	0.003	0.013	0.014	0.004	0.003	0.002	0.003
2	0.004	0.004	0.007	0.006	0.004	0.003	0.004	0.003	0.005	0.004	0.004	0.004	0.002	0.003	0.003	0.005	0.003	0.003	0.005	0.004	0.004	0.004	0.003	0.003
3	0.003	0.003	0.003	0.013	0.005	0.004	0.004	0.003	0.003	0.005	0.003	0.006	0.003	0.003	0.004	0.003	0.003	0.003	0.004	0.004	0.004	0.003	0.007	0.006
4	0.004	0.003	0.004	0.003	0.005	0.005			0.003	0.002	0.004	0.006	0.039	0.003	0.002	0.003			0.003	0.003	0.003	0.003	0.003	0.003
Average	0.004	0.004	0.005	0.006	0.005	0.004	0.004	0.003	0.004	0.004	0.004	0.005	0.012	0.004	0.003	0.003	0.004	0.003	0.006	0.006	0.004	0.003	0.004	0.005

CYANIDE (mg/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.005	0.005	0.006	0.006	0.006	0.005	0.003	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.003	<0.002	0.002	<	0.003	0.003	0.004	0.003
2	0.004	0.004	0.004	0.003	0.003	0.004	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.005	0.005	0.003	0.003	<0.002	<0.002	0.003	0.003	0.004	0.003
3	0.003	0.003	0.006	0.006	0.004	0.004	0.002	0.003	0.007	0.009	0.003	0.003	0.003	0.003	<0.002	<0.002	<0.002	0.002	0.003	0.003	0.003	0.003	<0.002	<0.002
4	0.003	0.003			0.004	0.003	0.002	0.003	0.002	0.003	0.004	0.003			<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.003	0.003	<0.002	<0.002
Average	0.004	0.004	0.005	0.005	0.004	0.004	0.003	0.004	0.003	0.005	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.002	0.001	0.003	0.003	0.003	0.002	0.002

CYANIDE (mg/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	0.003	0.002	0.01	0.009			0.003	0.003	0.005	0.005	0.004	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.002	0.002	0.003	0.003	0.003	0.003
2	0.004	0.003	0.007	0.006	0.004	0.006	0.002	0.003	0.006	0.007	0.002	0.002	0.003	0.003	0.003	0.002	0.005	0.003	0.003	0.003	0.003	0.003	0.003	0.002
3	0.006	0.01	0.004	0.004	0.003	0.004	0.003	0.003	0.005	0.004	0.003	<0.002	0.004	0.005	<0.002	0.002	0.004	0.004	0.002	0.002	0.003	0.003	0.003	0.002
4			0.004	0.009	0.003	0.004	0.003	0.003			0.003	0.003	0.003	0.002	0.003	0.003	0.004	0.003	0.003	0.003			0.002	<0.002
Average	0.004	0.005	0.006	0.007	0.003	0.005	0.003	0.003	0.005	0.005	0.003	0.002	0.003	0.003	0.002	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.002

CYANIDE (mg/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	nd	nd	0.003	0.003	ND	0.003	0.002	0.002	0.003	0.005	0.002	0.002	ND	ND	0.003	0.003	0.002	0.003	0.004	0.002	0.002	0.004	0.004	0.004
2	0.005	0.005	0.002	ND	0.003	ND	0.002	0.002	ND	0.002	0.002	0.002	ND	0.002	ND	0.004	0.002	0.002	0.003	0.004	0.003	0.003	0.003	0.003
3	0.004	0.003	ND	0.002	ND	0.003	0.004	0.005	ND	0.002	ND	0.002	0.003	0.003	0.004	0.006	ND	0.003	0.003	0.003	0.002	0.002	0.004	0.004
4	0.002	0.002	0.003	0.004			ND	0.003	ND	0.002	0.002	0.002	0.002	ND	ND	ND			0.004	0.004	0.002	0.003	ND	<0.002
Average	0.003	0.003	0.002	0.002	0.001	0.002	0.002	0.003	0.001	0.003	0.002	0.002	0.001	0.001	0.002	0.003	0.001	0.003	0.003	0.004	0.002	0.003	0.003	0.004

EFFLUENT RADIATION (pCi/L) 1998																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1																								
2	2.3	33.1	1.4	23.4	1.5	21.5	2.8	19.2	3.3	48	4.8	28.6	2.8	32.5	3.8	21	0.3	33.7	1.5	16.7	1.4	26	1.4	27
3																								
4																								
Average	2.3	33.1	1.4	23.4	1.5	21.5	2.8	19.2	3.3	48	4.8	28.6	2.8	32.5	3.8	21	0.3	33.7	1.5	16.7	1.4	26	1.4	27

EFFLUENT RADIATION (pCi/L) 1999																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1			1.4	26.1	2.8	18.7	4.2	28.9																
2	1.5	30.1							-0.2	41.5	1.7	29.2	0.7	21.7	0.7	21.7	0.3	36.7	2	43.4	1	34	4.3	31.8
3																								
4																								
Average	1.5	30.1	1.4	26.1	2.8	18.7	4.2	28.9	-0.2	41.5	1.7	29.2	0.7	21.7	0.7	21.7	0.3	36.7	2	43.4	1	34	4.3	31.8

EFFLUENT RADIATION (pCi/L) 2000																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1	3.1	29.6			2.5	32.9			2.8	36.4	1.8	28.1	3.3	33.7			1.3	36.2			0.7	25.2	1.7	29.2
2			1.9	35.8			2	30.4							2.5	34.6								
3																				1.8	31.9			
4																								
Average	3.1	29.6	1.9	35.8	2.5	32.9	2	30.4	2.8	36.4	1.8	28.1	3.3	33.7	2.5	34.6	1.3	36.2	1.8	31.9	0.7	25.2	1.7	29.2

EFFLUENT RADIATION (pCi/L) 2001																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1	0.3	28	2.1	37	2.6	30.7	1.6	26.3							0.6	31.1	1	37.4			1.4	29.9	2.9	29.2
2									1.7	37.2			0.9	33.4					1.8	35.3				
3																								
4																								
Average	0.3	28	2.1	37	2.6	30.7	1.6	26.3	1.7	37.2	0.8	31.2	0.9	33.4	0.6	31.1	1	37.4	1.8	35.3	1.4	29.9	2.9	29.2

EFFLUENT RADIATION (pCi/L) 2002																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1	2.7	28.5	1.5	37.1	1.6	33.4	1.9	32.5	1.9	13.3	1.2	35.7	0.7	21.5			0.1	27.9	1.5	14.9	1.3	25.5	0.8	14.9
2															1.8	12.2								
3																								
4																								
Average	2.7	28.5	1.5	37.1	1.6	33.4	1.9	32.5	1.9	13.3	1.2	35.7	0.7	21.5	1.8	12.2	0.1	27.9	1.5	14.9	1.3	25.5	0.8	14.9

EFFLUENT RADIATION (pCi/L) 2003																								
Week	alpha	JAN beta	alpha	FEB beta	alpha	MAR beta	alpha	APR beta	alpha	MAY beta	alpha	JUN beta	alpha	JUL beta	alpha	AUG beta	alpha	SEP beta	alpha	OCT beta	alpha	NOV beta	alpha	DEC beta
1	1.2	13.4	3.5	20.8	1.4	20.0	3.0	16.2	1.0	20.0	2.6	20.8	1.1	20.9	1.7	20.4	1.1	19.9	0.2	23.4	0.3	9.9	1.1	31.7
2																								
3																								
4																								
Average	1.2	13.4	3.5	20.8	1.4	20.0	3.0	16.2	1.0	20.0	2.6	20.8	1.1	20.9	1.7	20.4	1.1	19.9	0.2	23.4	0.3	9.9	1.1	31.7





HCH-HEXACHLOROCYCLOHEXANES (ng/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	45	30	37	26	37	29	46	24	24	34	28	32	46	48	66	33	44	26	68	27	43	24	32	27
2	61	37	45	29	39	33	28	21	32	27	53	32	45	34	55	31	42	31	53	35	49	27	32	21
3	54	39	29	25	49	27	30	26	39	42	37	36	42	37	56	30	42	25	57	25	43	29	30	21
4	47	32			46	25	42	30	36	32					54	34	45	28	50	25	31	21	34	26
Average	52	35	37	27	43	29	37	25	33	34	39	33	44	40	58	32	43	28	57	28	42	25	32	24

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	32	23	28	16	22	15	70	37	15	11	38	32	41	25	42	26	41	30	68	36	44	27	34	18
2	26	23	26	22	20	15	25	18	15	13	63	36	38	29	50	35	50	33	44	27	47	25	57	60
3	29	20	33	21	15	14	24	17	31	22	34	25	38	26	43	24	45	29	40	30	36	24	39	20
4			39	17	22	12	21	18			43	31	39	33	57	26	96	39	48	26			31	13
Average	29	22	32	19	20	14	35	23	20	15	45	31	39	28	48	28	58	33	50	30	42	25	40	28

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	46	17	27	19	16	14	31	11	44	26	57	27	41	30	36	19	37	23	56	26	24	17	73	29
2	41	25	30	18	25	19	15	11	32	34	42	22	29	17	37	19	34	17	31	20	46	27	62	nd
3	42	22	32	17	33	19	31	13	48	28	41	23	23	19	52	25	15	15	37	24	60	25	60	20
4	24	18	50	20	24	16			46	26	42	25	22	15	46	26			34	24	36	35	53	21
Average	38	21	35	19	25	17	26	12	43	29	46	24	29	20	43	22	32	18	40	24	42	26	62	18

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	51	22	37	17	26	14	51	13	38	21	NA	28	30	15	38	21	NA	18	35	18	50	15	58	19
2	0	0	32	14	NA	15	55	19	47	14	20	14	24	16	40	14	59	19	42	13	21	15	38	18
3	42	17	36	0	34	12	43	12	47	17	38	18	28	38	44	16	54	15	49	20	38	21	0	0
4	30	0			18	11	49	15	43	21	54	27			61	26	49	19	46	13	70	11	68	24
Average	31	10	35	10	26	13	50	15	44	18	37	22	27	23	46	19	41	18	43	16	45	16	41	15

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	39	18	35	17	26	21	31	13	nd	nd	36	nd	23	nd	45	16	16	nd	26	nd	14	nd	nd	nd
2	47	14	40	nd	19	15	24	nd	nd	nd	36	nd	32	nd	nd	nd	20	nd	48	22	13	13	nd	nd
3	45	17	33	15	40	nd	31	19	14	14	36	18	28	nd	50	12	27	20	99	24	10	nd	nd	nd
4			38	16	45	15	29	14			30	nd	33	nd	18	16	28	12	11	nd			nd	nd
Average	44	16	37	12	33	13	29	12	7	5	35	5	29	nd	28	11	23	8	46	12	12	4	nd	nd

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	33	nd	20	23	27	23	18	nd	26	nd	31	13	28	nd	34	26	58	40	nd	nd	nd	nd	nd	nd
2	34	nd	490	175	nd	nd	23	nd	24	nd	38	20	29	nd	38	30	nd	nd	nd	nd	61.0	27.0	nd	nd
3	30	nd	nd	nd	19	nd	25	nd	15	nd	55	12	31	13	31	37	nd	nd	nd	nd	nd	nd	nd	nd
4	20	19	12	15			32	nd	18	nd	29	21	32	nd					nd	nd	nd	nd	nd	nd
Average	29	5	131	53	15	8	25	nd	21	nd	38	17	30	3	34	31	19	13	nd	nd	15.3	6.8	nd	nd







DDT AND DERIVATIVES (ng/L) 1998

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

DDT AND DERIVATIVES (ng/L) 1999

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	52	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	13	nd	nd	nd	nd	nd	nd	nd	nd	nd

DDT AND DERIVATIVES (ng/L) 2000

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	nd	92	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	45	50	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	nd	23	11	13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

DDT AND DERIVATIVES (ng/L) 2001

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	NA	nd	nd	nd	nd	nd	NA	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	nd	nd	nd	nd	NA	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

DDT AND DERIVATIVES (ng/L) 2002

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	50	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	37	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	nd	nd	46	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	29	nd	nd	nd	12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

DDT AND DERIVATIVES (ng/L) 1997

Week	Inf	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
		Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf
1	nd	nd	nd	nd	nd	nd	nd	nd	24	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Average	nd	nd	nd	nd	nd	nd	nd	nd	6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd





NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1998

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	13.3	15.9	9.1	10.9	14.9	14.6	11.7	12.3	15.9	18	19	13.1	15	16.5	11.1	7.6	10.5	9.4	11	9.2	12	9.2	15.1	12.5
2	15.7	17.4	7.1	5.6	16.9	14.5	15.7	14.9	14	15.6	15	15.9	14.9	13.1	5.2	3.4	5.8	9.1	13.8	9.4	13.4	10.1	12	11.8
3	27.1	21.3	11.3	13.3	18.9	17.8	14.1	16.8	11.9	13.1	18.7	19.9	14.3	12.2	8.8	16.4	12.6	10.1	8.8	16.2	12.8	15.9	10.2	
4	25.2	22.4		14.3	10.2	26.9	25	17.4	16.5	16.6	17.2			13	12.3	12.6	11.5	11.9	10.1	11.5	7.8	12.3	8.7	
Average	20.3	19.3	9.2	9.9	16.3	14.3	17.1	17.3	14.8	15.8	17.3	16.5	14.7	14.1	10.4	8	11.3	10.7	11.7	9.4	13.3	10	13.8	10.8

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1999

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	15.1	11.1	14.8	11.9	15.5	11.6	17.1	11.8	12.7	8	19.9	10.6	24.3	15.6	21.5	8.1	16.1	11.3	13.8	12	18.2	10.8	13.2	9.9
2	15.6	10.8	23.6	13.4	13.9	9.6	15.6	11.4	14.6	7.8	21.6	13.1	16.9	10.8	22.7	14.5	19.2	15.3	17.9	15.7	15.9	12.3	21.3	17
3	15.9	11	18.9	13.8	13.5	8.3	19.5	12.4	6.5	10.9	18	11.1	21.8	13.8	17	14.9	16.4	14.3	16.6	8.9	19.4	12	16.1	11.7
4			16.7	8.6	24.4	14.2	15.5	12			15.8	8.7	18.6	14.5	15.5	12.3	16.1	14.5	15.5	8.5			18.6	11.1
Average	15.5	11	18.5	11.9	16.8	10.9	16.9	11.9	11.3	8.9	18.8	10.9	20.4	13.7	19.2	12.5	17	13.9	16	11.3	17.8	11.7	17.3	12.4

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2000

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	13.8	9	20.7	12.6	13.1	10.4	13.8	8.2	12.9	11.3	7.7	6.3	24.3	20.3	22.9	16.1	15.2	10.3	15.6	10.9	21.5	14.4	11	8.5
2	26.6	16.9	18.5	14.1	11.9	10	13.9	7.8	12.9	10	8.8	6.7	21.4	18.9	16.5	10.8	13.6	10.3	16.6	10.6	*	7.7	13.8	11.5
3	18.9	14.9	15.9	9.9	10.4	9.1	15.3	12.1	17.2	15.4	24.3	11.6	20.2	18	18.2	11.2	21.4	15.4	16.2	11.9	18.7	14.4	20.3	14.6
4	19.1	12	13.9	9.1	16.8	10.5			6.9	7.7	16.9	13.4	21.5	12.7	12.1	9.5			15.2	11.1	11.6	8.6	19.6	14
Average	19.6	13.2	17.3	11.4	13.1	10	14.3	9.4	12.5	11.1	14.4	9.5	21.6	17.5	17.4	11.9	16.7	12	15.9	11.1	17.3	11.3	16.2	12.2

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2001

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	17.3	13.7	22.9	23	12.1	7	21.6	24.3	17.9	18.4	25.8	15.5	19.1	10.5	16.4	11.5	14.8	6.3	13.3	8.5	15.2	12.4	19.1	8.4
2	11.5	8.5	11.6	6.6	11.3	8	22	12.4	14.7	9.8	17.9	12	15.2	5	18.9	8.9	15.8	8.5	10.4	10.3	16.6	11.6	13.6	9.8
3	13.9	9.5	15.4	15.1	15.1	13.7		13.7	19.1	13.1	12.7	7.4	15.5	10.1	14.8	9.9	16.1	6.6	12.9	6.1	25.1	10.3	12.2	7.8
4	19.5	16.1		21.3	7.8					8.8	16.7	7.9			14.5	9.7	17.5	9.2	12.8	10	23.1	13.6	19.8	12.5
Average	15.6	12	16.6	14.9	15	9.1	21.8	16.8	17.2	12.5	18.3	10.7	16.6	8.5	16.2	10	16.1	7.7	12.4	8.7	20	12	16.2	9.6

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2002

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	22.5	15.1	19.3	19.9	20.1	19.5	22.6	17.1	16.6	14.6	17.8	11.2	15.9	7.4	14.4	8.8	14.7	9.3	13.9	9.7	15.7	8.2	17	9.1
2	19	14.1	14.8	13.2	14.9	13.2	15	13.1	12.7	11.9	13.2	7	11.3	9.4	13.4	7.7	12.6	7.8	16.1	8	12.3	7.1	9.9	9.4
3	15.9	15.3	14.2	12.3	14.7	17.1	17.3	15.7	13.9	11.1	13.1	15.7	13.3	9.8	11.8	9	11.4	6.5	13.8	9.8	9.2	7.4	9.4	7.5
4			19.6	20.2	6.3	0	11.9	12.9			18	10.3	10.3	7.9	8.9	8.2	13.7	8.1	10.3	6.8			18	15.3
Average	19.1	14.8	17	16.4	14	12.5	16.7	14.7	14.4	12.5	15.5	11.1	12.7	8.6	12.1	8.4	13.1	7.9	13.5	8.6	12.4	7.6	13.6	10.3

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2003

Week	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff	Inf	Eff
1	16.2	9.8	11.2	5.7	14.0	12.9	17.1	11.3	18.3	9.7	15.0	10.2	16.0	4.1	12.1	8.7	10.5	7.2	9.2	9.4	13.8	8.8	16.2	11.0
2	11.8	9.4	14.4	10.2	6.7	4.1	23.8	17.5	15.2	13.9	17.6	11.5	19.6	13.1	16.2	11.2	12.2	6.5	13.8	5.8	17.0	10.4	20.5	16.5
3	12.9	10.0	12.1	9.6	14.0	13.7	15.7	12.0	18.3	13.7	15.6	13.0	18.1	13.3	17.6	11.7	11.5	9.3	nd	7.2	16.7	6.5	15.6	9.7
4	18.2	13.3	10.5	8.6	11.6	10.2	17.0	12.4	15.6	12.8	13.2	11.4	20.5	14.1	14.9	10.1			15.0	8.7	17.5	12.6	17.1	13.0
Average	14.8	10.6	12.1	8.5	11.6	10.2	18.4	13.3	16.9	12.5	15.4	11.5	18.6	11.2	15.2	10.4	11.4	7.7	12.7	7.8	16.3	9.6	17.4	12.6

