PG&E Letter DCL-2011-516
State Water Resources Control Board (SWRCB)
April 11, 2011

Enclosure 1

Discharge Monitoring Data for Years 2006 thru 2010
Diablo Canyon Power Plant
NPDES No. CA0003751 Order 90-09

Summary Overview Sections, Tabular Summaries of Influent and Effluent Monitoring Sections, and Graphical Summaries of Influent and Effluent Monitoring Sections of DCPP NPDES Permit Annual Discharge Self Monitoring Reports (DSMRs)

Permit Monitoring Information
2010

Annual NPDES Discharge Self Monitoring Report (DSMR) Text, Tabular, and Graphical Data Sections

25 Pages

2010 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

OVERVIEW

This annual summary report follows the format used in quarterly monitoring reports. Analytical results below the respective analytical detection limit (ND or non-detect) are plotted as a "zero" value in accordance with ELAP guidance. Results between the analytical detection limit and reporting (quantitation) limits are plotted at the value and shown as 'DNQ' in the tabular summaries as is done for CIWQS reports. Less-than results are typically reported to express an average of values that include non-detects and at least one positive result. These less-than results are plotted conservatively at the value. During 2010, discharges occurred from all discharge paths except 001I, 001K, 016, and 017.

B. California Ocean Plan Table B substances that were not analyzed for have not been added to the discharge stream. The substances listed in Table B in the California Ocean Plan were each analyzed for and reported in the permit renewal application for Diablo Canyon Power Plant (DCPP) submitted in October 1994 and January 2001. There have been no changes in activities conducted at the plant that would have significantly affected the results previously reported in the above referenced documents.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. Monitoring Data

a. Appendix 1 provides a list of discharge path names for ease of reference. Appendix 2 contains monitoring data in tabular form. Reporting formats for the 1st quarter 2010 have been revised to reflect conventions required for the CIWQS Application eSMR. Appendix 3 contains monitoring data in graphical form.

b. Annual oil and grease analyses were performed in October on Stormwater/Yard Drain Discharges 005, 008, 009, 013, and 015. Results were non-detect (less than 5 mg/l) for all five of these discharge points. No discharges that resulted in adequate sample quantities occurred from pathway 016, and no discharge occurred from 017 during 2010.

c. In October, Discharge 001D (Liquid Radioactive Waste Treatment System) annual grab samples for lithium, boron, and hydrazine were collected and analyzed. The results were 0.083 mg/l, 319 mg/l, and non-detect (less than 0.003 mg/l), respectively.

2. Facility Operating and Maintenance Manual

Pacific Gas and Electric Company (PG&E) maintains a multiple volume Plant Manual at DCPP that contains procedures used for operation and maintenance activities at the plant, including those activities that relate to wastewater handling, treatment, sampling, analysis and discharge.

Plant procedures are prepared and reviewed by DCPP Staff and approved by DCPP Management. DCPP conducts biennial internal audits that review NPDES plant procedures contained in the manual. Ongoing reviews of plant procedures are conducted to assure that the manual remains valid, current, and complete for the facility.

3. Laboratories Used to Monitor Compliance

The following laboratories were used during 2010 for monitoring compliance. They are certified under the appropriate agencies for the test/analyses they perform. As part of the on-going annual certification process, these laboratories take part in, and have passed, annual quality performance evaluation testing.

a. PG&E Chemistry Laboratory, DCPP, Avila Beach, California (Lab Certification # CA01036)

b. Aquatic Bioassay Consulting Laboratories, Ventura, California (Lab Certification # CA01907)

c. Creek Environmental, San Luis Obispo, California (Lab Certification # CA00975)

d. Columbia Analytical Services, Kelso, Washington (Lab Certification # WA00035)

e. TestAmerica, Inc., Earth City, Missouri (Lab Certification # MO00054)

f. Abalone Coast Analytical, San Luis Obispo, California (Lab Certification # CA02661)

g. Oilfield Environmental and Compliance, Santa Maria, California (Lab Certification # CA02438)

4. Review of Compliance Record and Corrective Actions

a. Circulating Water Pump Chlorination/Bromination Monitoring

The 2010 quarterly NPDES reports discuss chlorination cycles when discharge monitoring was interrupted. These are listed below with brief descriptions of the cause and respective corrective action. When these monitoring interruptions occurred, engineering evaluations (approved by the CCRWQCB January 13, 1994; PG&E Letter No. DCL-94-002) were performed. Detailed descriptions of these evaluations are included in the quarterly reports. Evaluations concluded that discharge chlorine limits were not exceeded during these events.

Date	Chlorination Cycle Monitoring Interruptions	Cause	Corrective Action
03/15/10	Unit 2 1 Reading	Plugged airline	Airline cleared and cleaned
04/17/10 to 04/20/10	Unit 1 23 Readings	Defective monitor electrode	Electrode replaced
07/23/10 to 07/24/10	Unit 2 7 Readings	Debris clogging monitor sample line	Debris removed
07/26/10 to 07/27/10	Unit 2 5 Readings	Leaking fitting in monitor	Fitting replaced
11/03/10 to 11/10/10	Unit 2 42 Readings	Sample pump fouled with biological growth	Sample pump cleaned
12/01/10	Unit 2 1 Reading	Post-maintenance restart of monitor delayed	Personnel involved interviewed and coached

b. Closed Cooling Water Releases

During 2010, maintenance activities that required draining of closed cooling water systems were performed and are summarized below. PG&E received concurrence from the CCRWQCB in response to letters dated July 19, 1995 (PG&E Letter DCL-95-156), May 23, 1996 (PG&E Letter DCL-96-522), and May 19, 1997 (PG&E Letter DCL-97-533) regarding the use of glutaraldehyde and isothiazolin to control microbiological growth and corrosion in DCPP's closed cooling water systems. Any drainage from these systems is discharged at a flow-rate such that the chronic toxicity level is below the "No Observable Effect Concentration" (NOEC) at NPDES Discharge 001.

The volumes of cooling water drained in 2010 from the component cooling water (CCW), service cooling water (SCW), and intake cooling water (ICW) systems are presented below. The glutaraldehyde (Glut) and isothiazoline (Iso) concentrations presented in the table below are system concentrations, not concentrations at the point of discharge to receiving water.

Date	System	Volume (gallons)	Glut (mg/l)	Iso (mg/l)	Total Suspended Solids (mg/l)	Oil & Grease (mg/l)	Reason & Comments
01/06/10	Unit 1 ICW	3,370	76	5.7	n/a	n/a	Routine Maintenance
01/13/10	Unit 1 SCW	33,000	< 50	7.5	12.0	< 1.4	Routine Maintenance
01/14/10	Unit 1 CCW	930	158	0.0	n/a	n/a	Routine Maintenance
01/26/10	Unit 2 SCW	33,200	< 50	7.4	19.1	< 1.4	Routine Maintenance
05/04/10	Unit 2 SCW	33,350	67	5.1	< 2.0	< 1.4	Routine Maintenance
05/19/10	Unit 2 ICW	3,331	70	1.8	n/a	n/a	Routine Maintenance
06/09/10	Unit 1 SCW	33,100	149	4.0	< 2.0	< 1.4	Routine Maintenance
06/27/10	Unit 1 CCW	378	175	n/a	n/a	n/a	Routine Maintenance
07/26/10	Unit 1 CCW	322	136	0.0	n/a	n/a	Routine Maintenance
08/10/10	Unit 1 CCW	900	126	0.0	n/a	n/a	Routine Maintenance
08/17/10	Unit 1 ICW	3,320	63	9.2	n/a	n/a	Routine Maintenance
09/09/10	Unit 2 SCW	33,000	78	7.2	< 2.0	< 1.4	Routine Maintenance
09/18/10	Unit 1 CCW	522	140	0.0	3.2	< 1.4	Routine Maintenance
09/22/10	Unit 1 CCW	4,200	113	0.0	< 2.0	< 1.4	Routine Maintenance
10/02/10	Unit 1 SCW	8,250	172	2.9	< 2.0	< 1.4	Routine Maintenance
10/08/10	Unit 1 ICW	1,100	< 50	2.3	n/a	n/a	Routine Maintenance
11/04/10	Unit 2 ICW	121	185	4.6	n/a	n/a	Routine Maintenance
11/10/10	Unit 2 ICW	3,314	185	4.6	n/a	n/a	Routine Maintenance
11/18/10	Unit 2 SCW	33,200	< 50	1.9	10.3	< 1.4	Routine Maintenance

c. Exceedances

On April 29, 2010 chemical drain tank (CDT) 0-2 was discharged via permit pathway 001D with a grease and oil (G&O) concentration of 30 mg/l. The discharge resulted in an exceedance of the daily maximum limit of 20 mg/L G&O for the pathway. The exceedance was not discovered until after the 2nd Quarter CIWQS Electronic Data Report (eSMR) was submitted on July 20, 2010. The event was discovered during final review of the USEPA DMR Forms for the same reporting period. The CIWQS eSMR and DMR Forms for the 2nd Quarter 2010 reflected the correct monitoring data, and the DMR submittal appropriately documented the exceedance. Verbal notification of the event to the Regional Water Quality Control Board staff occurred on July 21, 2010.

Follow-up investigation determined the G&O discharge daily maximum of 30 mg/L exceeded the respective 20 mg/L permit limit by 50.0% as a result of this event.

Subsequent to discovery, the processes and procedures for approving tank discharges via pathway 001D were reviewed in detail. Procedural data sheets and associated review processes implemented prior to authorizing a chemical drain tank wastewater release have been enhanced to prevent a discharge through pathway 001D if constituent parameters are not in specification with NPDES permit limitations.

B. Monitoring of Receiving Water

1. Ecological Studies at Diablo Canyon

Marine ecological monitoring was continued during 2010 under the Receiving Water Monitoring Program (RWMP) as requested in a letter from the Central Coast Regional Water Quality Control Board (CCRWQCB) dated December 9, 1998, and as detailed in a letter from PG&E dated January 8, 1999 (DCL-99-503). This program includes tasks from the Ecological Monitoring Program (EMP) with additional stations and increased sampling frequencies. This program replaces the EMP and the Thermal Effects Monitoring Program (TEMP). Several one-year-only tasks outlined in the above letters were completed in 1999 and were not requested to be performed in 2010. Results of 2009 RWMP data were submitted to the CCRWQCB on April 29, 2010. A table in Appendix 4 summarizes requirements and completed monitoring tasks for 2010.

2. In Situ Bioassay

Results of the Mussel Watch Program are reported to the CCRWQCB directly by the California Department of Fish and Game in the agency's periodic report for this program.

C. Sodium Bromide Treatment Program

DCPP continued its integrated sodium bromide and "foul release coating" strategy to control macrofouling in the Circulating Water System (CWS). The treatment program consists of six 20-minute injections (at four hour intervals) of a blend of generic sodium bromide and sodium hypochlorite into DCPP's seawater intake conduits. Each injection attempts to achieve a target concentration of 200 parts per billion (ppb) Total Residual Oxidant (TRO) at the inlet waterbox of the main condensers. Discharge TRO, measured at the plant outfall, remained below NPDES limitations. Typically, discharge values were between 20 ppb and 50 ppb. In conjunction with the chemical treatment, untreated portions of the cooling water system were previously painted with a non-toxic "foul release coating" to reduce or prevent attachment of fouling organisms.

Both conduits of Unit 1 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day through the middle of February 2010 with two brief interruptions in January for maintenance activities. In mid February, injections were shut down in preparation for mid-cycle tunnel cleaning. Simultaneous injections six times a day were restarted in late February and ran through August with brief interruptions in March, April, and August for maintenance activities. Unit 1 injections were shut down at the end of September for the 1R16 refueling outage. Simultaneous injections of sodium hypochlorite and sodium bromide were restarted at the beginning of November and ran through the remainder of 2010 with brief interruptions in early November due to high ocean swell activity, and late December due to maintenance activities.

Both Unit 2 conduits were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day throughout 2010 with brief interruptions in January, March, April, August, October, November, and December for maintenance activities.

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DISCHARGE 001

	TEMPERATURE (DEG F)								FLOW (MGD)		
	INFLUENT			EFFLUENT			DELTA T				
Month	high	low	avg	high	low	avg	high	avg	high	low	avg
JAN	57.5	55.6	56.7	76.6	63.5	75.1	19.7	18.4	2486	1279	2198
FEB	57.0	54.6	56.1	75.9	73.5	74.9	19.3	18.8	2486	1874	2413
MAR	56.9	50.4	52.5	75.5	69.1	71.1	19.1	18.6	2486	1862	2446
APR	54.2	50.2	52.3	73.1	68.9	71.1	18.9	18.8	2486	2486	2486
MAY	51.5	48.5	50.1	70.4	67.2	68.9	19.0	18.8	2486	2486	2486
JUN	52.2	49.4	50.6	71.5	68.1	69.4	19.3	18.2	2486	2486	2486
JUL	54.7	50.0	52.7	73.7	68.2	71.2	19.6	18.5	2486	2486	2486
AUG	54.2	50.5	52.3	73.1	69.8	71.3	19.4	19.0	2486	2486	2486
SEP	54.9	51.3	52.6	74.1	70.1	71.6	19.4	19.0	2486	2486	2486
OCT	58.3	53.5	55.9	78.6	71.0	75.3	20.3	19.4	2486	863	1363
NOV	56.6	51.9	54.6	75.5	70.1	62.9	19.4	15.4	2486	1502	2346
DEC	55.6	51.4	53.9	74.1	70.2	72.4	19.1	18.6	2486	1862	2446
limit:		-			-		22		2760		

The Influent and Effluent "high" and "low" temperture values correspond to the highest and lowest daily average value for that month. The Influent high and low temperature does not necessarily correspond to the same day as the Effluent high and low temperature for that month. The "avg" temperature for Influent and Effluent is the average for the entire month. The Monthly Delta T "high" is the highest Delta T for a day of the month based on daily average Influent and Effluent temperature values. The "Avg" temperature is calculated from Influent and Effluent monthly avg values.

DISCHARGE 001

	TOTAL RESIDUAL CHLORINE (daily max. ug/l)			TOTAL CHLORINE USED (lbs/day)		
Month	high	low	avg	high	low	avg
JAN	52	16	38	562	70	484
FEB	57	36	46	562	259	468
MAR	62	17	42	518	271	416
APR	68	<10	39	475	302	402
MAY	52	11	32	360	331	351
JUN	48	<10	19	432	374	391
JUL	21	<10	10	490	374	467
AUG	26	13	19	605	295	500
SEP	36	<10	17	577	446	499
OCT	7	<7	<7	418	48	277
NOV	52	15	27	533	230	422
DEC	37	10	23	504	298	451

Note: The residual chlorine limits in Permit CA0003751, Order 90-09, is an instantaneous max of 200 ug/l, and includes a time-based limit (per the Ocean Plan) which depends on the length of the respective chlorination cycle.

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DISCHARGE 001

METALS (monthly avg. ug/l)

	CHROMIUM		COPPER		NICKEL		*ZINC	
Month	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
JAN	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(5)	DNQ(6)	ND(5)
FEB	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(5)	ND(5)
MAR	ND(5)	ND(5)	DNQ(6)	ND(5)	ND(5)	ND(5)	13	ND(5)
APR	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(8)	DNQ(9)	DNQ(6)	DNQ(5)
MAY	ND(5)	ND(5)	11	DNQ(6)	DNQ(9)	DNQ(8)	11	ND(5)
JUN	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
JUL	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(6)	ND(5)
AUG	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(8)	DNQ(8)
SEP	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(6)	DNQ(6)
OCT	ND(5)	ND(5)	ND(5)	ND(5)	11	11	ND(5)	ND(5)
NOV	ND(5)	ND(5)	ND(5)	DNQ(6)	13	13	14	ND(5)
DEC	ND(5)	ND(5)	ND(5)	ND(5)	10	DNQ(9)	ND(5)	ND(5)
6-month median limit:		10	-	10	-	30	-	70

DISCHARGE 001
VARIOUS ANNUAL ANALYSES
(monthly avg. ug/l)

Parameter	Influent	Effluent	6-Mo. Med. Effluent Limit
Arsenic	1.52	1.53	30
Cadmium	0.055	0.052	10
Cyanide	ND(10)	ND(10)	30
Lead	0.18	0.04	10
Mercury	DNQ(0.02)	DNQ(0.04)	0.2
Silver	DNQ(0.006)	DNQ(0.004)	2.9
Titanium	DNQ(0.4)	DNQ(0.4)	none
*Phenolic Compounds (non-chlorinated)	ND(8.42)	ND(8.42)	150
**Phenolic Cmpds (chlorinated)	ND(2.02)	ND(2.02)	10
***PCB's	ND(0.0658)	ND(0.0658)	none

* Results for analysis of 9 target compounds. The sum of the 9 detection limits is 8.42.
** Results for analysis of 6 target compounds. The sum of the 6 detection limits is 2.02.
***Detection limits shown are the sum of individual detection limits for 7 target compounds.

DISCHARGE 001
AMMONIA (as N) (ug/l)

Month	Influent	Effluent
JAN	ND(41)	ND(41)
FEB		
MAR		
APR		
MAY	134	76
JUN		
JUL	170	230
AUG		
SEP		
OCT		
NOV	64	82
DEC		
6-month median limit:		3,060

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MONTHLY pH (averages)

Discharge:	001		002	003	004	001P
Month	Influent	Effluent				
JAN	8.0	8.0	8.1	8.1	8.1	7.8
FEB	8.0	8.0	8.1	8.1	8.1	7.8
MAR	7.8	7.8	8.0	8.0	8.0	7.8
APR	8.0	8.0	7.9	8.1	8.0	7.8
MAY	7.9	7.9	7.7	8.1	8.0	7.8
JUN	7.9	7.9	7.9	7.9	7.9	7.6
JUL	8.0	7.9	8.0	7.9	8.2	7.8
AUG	7.8	7.8	7.9	7.9	7.6	7.6
SEP	8.0	8.0	8.0	8.0	7.8	7.8
OCT	8.0	8.0	7.9	7.7	8.0	7.7
NOV	7.9	7.9	7.8	7.9	7.9	7.6
DEC	8.0	8.0	7.9	7.9	8.0	7.8

DISCHARGE 001F

	GREASE & OIL (mg/l)		SUSPENDED SOLIDS (mg/l)	
Month	high	avg	high	avg
JAN	ND(1.4)	ND(1.4)	ND(2)	ND(2)
FEB	6.1	6.1	19	18
MAR	DNQ(1.7)	DNQ(1.7)	ND(2)	ND(2)
APR	ND(1.4)	ND(1.4)	DNQ(3)	DNQ(3)
MAY	ND(1.4)	ND(1.4)	DNQ(3)	DNQ(3)
JUN	ND(1.4)	ND(1.4)	DNQ(3)	DNQ(2)
JUL	DNQ(1.4)	DNQ(1.4)	DNQ(3)	DNQ(3)
AUG	ND(1.4)	ND(1.4)	DNQ(2)	<2
SEP	ND(1.4)	ND(1.4)	DNQ(2)	<2
OCT	ND(1.4)	ND(1.4)	DNQ(2)	DNQ(2)
NOV	ND(1.4)	ND(1.4)	DNQ(3)	DNQ(3)
DEC	ND(1.4)	ND(1.4)	DNQ(3)	<2
limit:	20	15	100	30

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average Limits.

DISCHARGE 001N

(Monthly Summary of Weekly Data)

	GREASE & OIL (mg/l)			SUSPENDED SOLIDS (mg/l)			SETTLEABLE SOLIDS (ml/l)		
Month	high	low	avg	high	low	avg	high	low	avg
JAN	ND(5.0)	ND(5.0)	ND(5.0)	13	7	11	ND(0.1)	ND(0.1)	ND(0.1)
FEB	ND(5.0)	ND(5.0)	ND(5.0)	19	13	16	ND(0.1)	ND(0.1)	ND(0.1)
MAR	ND(5.0)	ND(5.0)	ND(5.0)	15	7	11	ND(0.1)	ND(0.1)	ND(0.1)
APR	DNQ(2.2)	ND(1.4)	<5.0	18	DNQ(4)	7	ND(0.05)	ND(0.05)	ND(0.05)
MAY	ND(1.4)	ND(1.4)	ND(1.4)	11	7	9	ND(0.05)	ND(0.05)	ND(0.05)
JUN	DNQ(1.4)	ND(1.4)	DNQ(1.4)	22	8	13	ND(0.05)	ND(0.05)	ND(0.05)
JUL	DNQ(2.4)	ND(1.4)	DNQ(1.4)	23	7	15	ND(0.1)	ND(0.1)	ND(0.1)
AUG	ND(1.4)	ND(1.4)	ND(1.4)	19	6	10	ND(0.1)	ND(0.1)	ND(0.1)
SEP	DNQ(1.8)	ND(1.4)	<1.4	16	ND(2)	9	ND(0.1)	ND(0.1)	ND(0.1)
OCT	DNQ(2.6)	ND(1.4)	DNQ(1.4)	17	4	10	ND(0.1)	ND(0.1)	ND(0.1)
NOV	DNQ(3.8)	ND(1.4)	DNQ(1.4)	12	7	9	ND(0.1)	ND(0.1)	ND(0.1)
DEC	<5.0	ND(1.4)	<5.0	13	7	10	ND(0.1)	ND(0.1)	ND(0.1)
limit:	20	-	15	-	-	60	3.0	-	1.0

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average limits.

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DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu
JAN	ND(5)	ND(5)	ND(5)	DNQ(9)	ND(5)	ND(5)	12	35	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(9)
FEB																
MAR																
APR	ND(5)	ND(5)	ND(5)	DNQ(7)	ND(5)	ND(5)	33	21	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	DNQ(9)
MAY																
JUN																
JUL	ND(5)	ND(5)	ND(5)	DNQ(9)	ND(5)	ND(5)	25	24	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	15
AUG																
SEP																
OCT	ND(5)	ND(5)	DNQ(6)	DNQ(6)	ND(5)	ND(5)	18	72	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	35	92
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn
JAN	ND(0.20)	DNQ(5)	ND(5)	120	ND(0.20)	12	DNQ(9)	18	ND(0.20)	ND(5)	ND(5)	DNQ(5)	ND(0.20)	DNQ(6)	ND(5)	18
FEB																
MAR																
APR	DNQ(0.092)	ND(5)	ND(5)	120	DNQ(0.015)	17	DNQ(7)	19	DNQ(0.108)	ND(5)	ND(5)	ND(5)	ND(0.050)	DNQ(7)	ND(5)	29
MAY																
JUN																
JUL	ND(0.050)	DNQ(6)	ND(5)	109	ND(0.050)	17	DNQ(8)	12	ND(0.050)	ND(5)	ND(5)	ND(5)	ND(0.050)	DNQ(8)	ND(5)	18
AUG																
SEP																
OCT	ND(0.050)	DNQ(5)	ND(5)	149	DNQ(0.069)	15	DNQ(5)	13	DNQ(0.062)	ND(5)	ND(5)	ND(5)	ND(0.10)	46	ND(5)	259
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

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MONTHLY TOTAL SUSPENDED SOLIDS

Averages (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003
JAN	<5	ND(2)	ND(2)				ND(2)		DNQ(2)	9	6
FEB	<5	ND(2)	ND(2)				ND(2)	DNQ(3)	<5	DNQ(2)	24
MAR	<5	ND(2)	ND(2)				ND(2)	6	<5	DNQ(3)	5
APR	<5	ND(2)	ND(2)				ND(2)		<5	<5	21
MAY	DNQ(4)	ND(2)	ND(2)				ND(2)		11	DNQ(3)	6
JUN	<5	ND(2)	ND(2)				ND(2)		7	ND(2)	8
JUL	<5	ND(2)	ND(2)				ND(2)		19	DNQ(3)	<5
AUG	<5	ND(2)	ND(2)				ND(2)	ND(2)	18	ND(2)	<5
SEP	<5	ND(2)	DNQ(2)				ND(2)		13	6	DNQ(2)
OCT	<5	ND(2)	ND(2)		ND(2)		ND(2)		14	DNQ(3)	DNQ(3)
NOV	<5	ND(2)	<5		DNQ(4)		ND(2)	DNQ(3)	26	5	12
DEC	<5	ND(2)	ND(2)				ND(2)	DNQ(2)	DNQ(2)	DNQ(2)	13
Limit:	30	30	30	30	30	30	30	30	30	30	-

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2010.
Blank spots for other discharge points indicate that no discharge occurred during that particular month.

QUARTERLY GREASE & OIL

Averages by Month (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003	004
JAN	DNQ(1.4)		ND(1.4)				ND(1.4)		ND(1.4)	ND(1.4)	ND(1.4)	
FEB		ND(1.4)						ND(1.4)				ND(1.4)
MAR								DNQ(1.6)				
APR	<5	ND(1.4)	ND(1.4)				ND(1.4)		ND(1.4)	ND(1.4)	ND(1.4)	ND(1.4)
MAY												
JUN												
JUL	DNQ(1.8)	ND(1.4)	ND(1.4)				ND(1.4)		ND(1.4)	ND(1.4)	ND(1.4)	ND(1.4)
AUG	DNQ(2.0)							ND(1.4)				
SEP	DNQ(3.7)											
OCT	DNQ(3.3)	ND(1.4)	ND(1.4)		ND(1.4)		ND(1.4)		ND(1.4)	ND(1.4)	ND(1.4)	ND(1.4)
NOV	7.7				ND(1.4)			ND(1.4)				
DEC	ND(1.4)							ND(1.4)				
Limit:	15	15	15	15	15	15	15	15	15	15	15	15

*** Discharges from 001D are batched. Monthly averages are flow weighted. A daily maximum exceedence in April is not reflected in this table.**
Note: No discharges occurred from 001I and 001K during 2010.

2010 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING
(toxicity units, tu_a and tu_c)

	ACUTE		*CHRONIC
Month	Test Result	6-Month Median	Test Result
JAN	0.00	0.00	1.0
FEB			
MAR			
APR	0.00	0.00	1.0
MAY			
JUN			
JUL	0.00	0.00	
AUG			1.0
SEP			
OCT	0.00	0.00	1.0
NOV			
DEC			
6-month median limit:		0.26	5.1

*** This parameter is monitored for the State Ocean Plan instead of the NPDES Permit. A value of 1.0 indicates no chronic toxicity.**

DISCHARGE 001N
ANNUAL ANALYSES

Sludge Parameter	Result	Limit
Percent Moisture	99.3%	None
Total Kjeldahl Nitrogen	240 mg/l	None
Ammonia (N)	180 mg/l	None
Nitrate (N)	DNQ(0.11)	None
Total Phosphorus	184 mg/l	None
pH	7.01	None
Oil and Grease	140 mg/l	None
Boron	1.0 mg/l	None
Cadmium	0.0034 mg/l	10 X STLC*
Copper	0.48 mg/l	10 X STLC
Chromium	0.015 mg/l	10 X STLC
Lead	0.018 mg/l	10 X STLC
Nickel	ND(0.002) mg/l	10 X STLC
Mercury	0.0011 mg/l	10 X STLC
Zinc	3.8 mg/l	10 X STLC
Volume	2.20 tons	None

Note: Annual samples were collected in October.
*** STLC = Soluble Threshold Limit Concentration**

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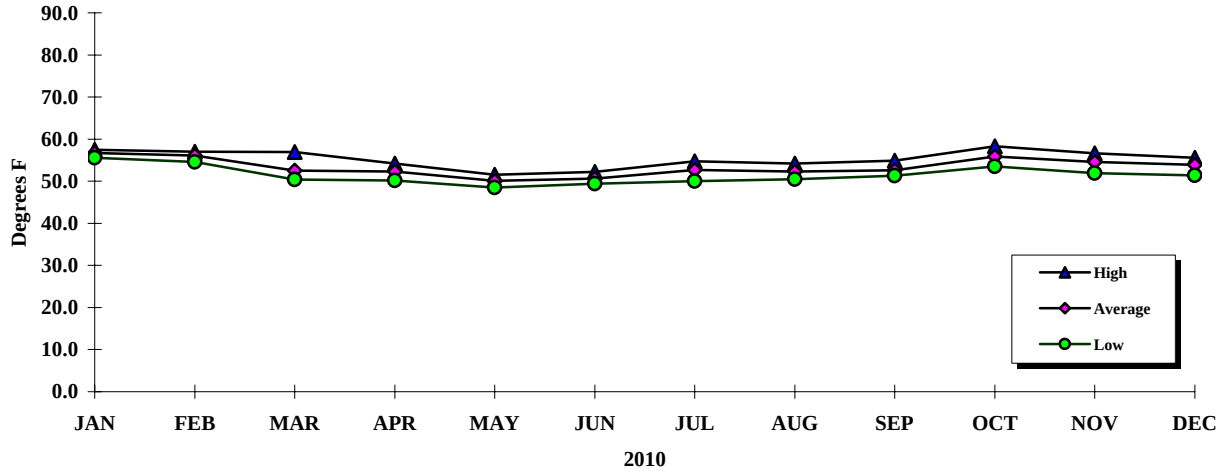
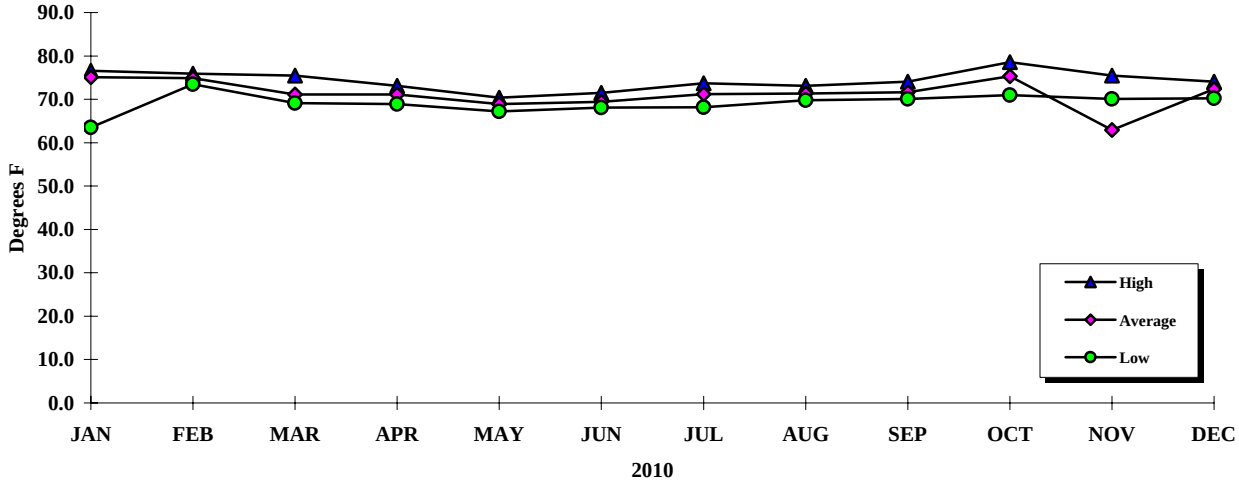
DISCHARGE 001 INFLUENT

Temperature (°F)



DISCHARGE 001 EFFLUENT

Temperature (°F)



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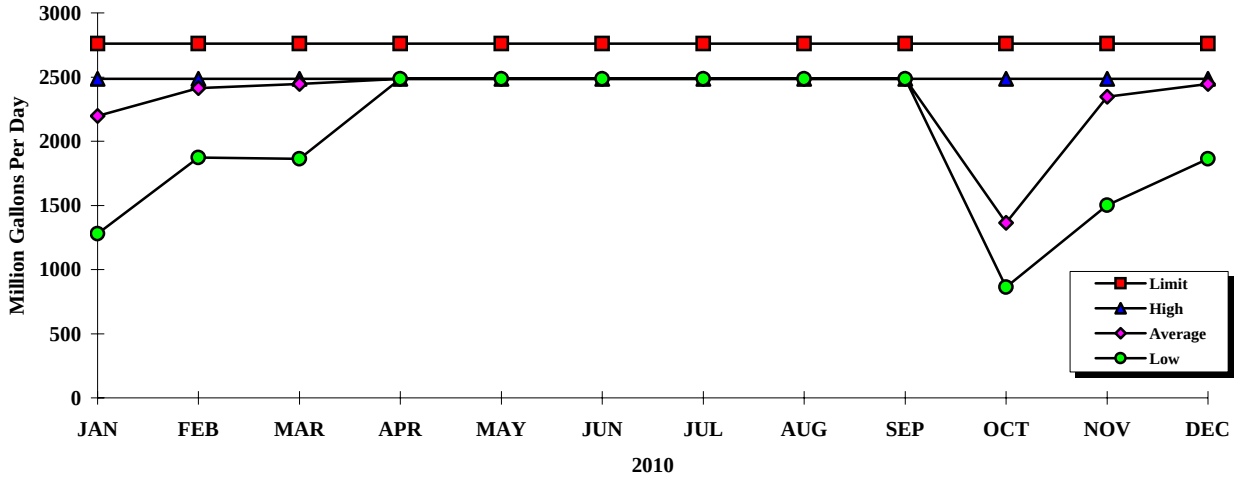
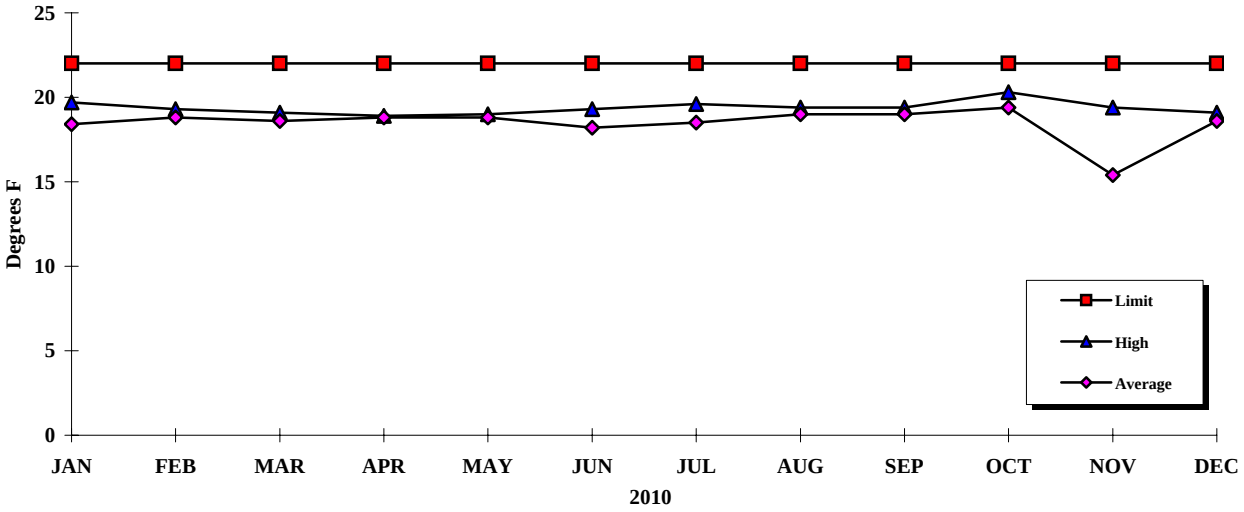
DISCHARGE 001 EFFLUENT

Flow (MGD)



DISCHARGE 001 EFFLUENT

Monthly Delta T (°F)



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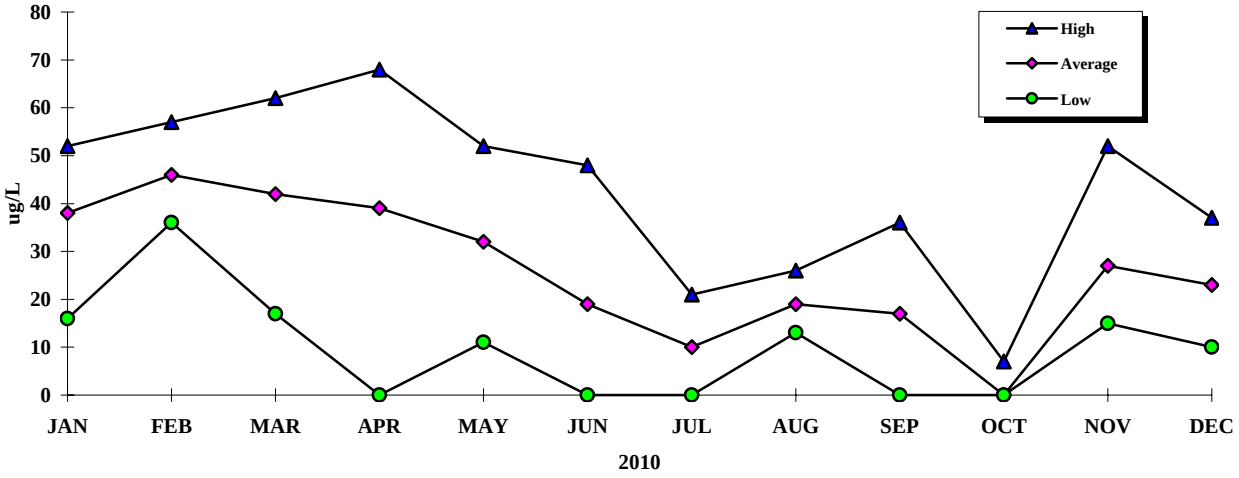
DISCHARGE 001

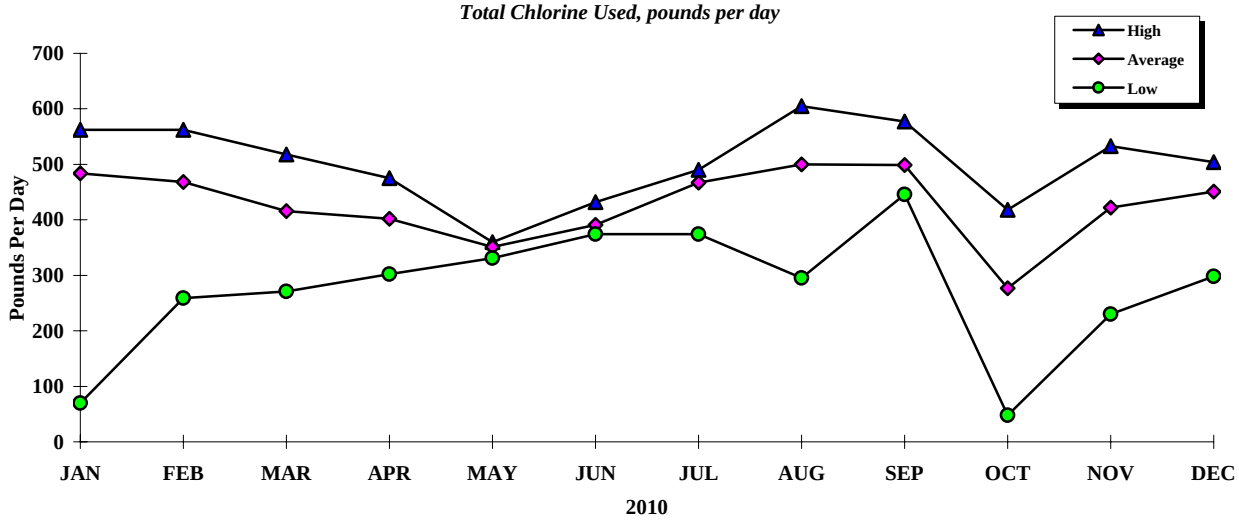
Total Chlorine Residual, ug/l



Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001

Total Chlorine Used, pounds per day



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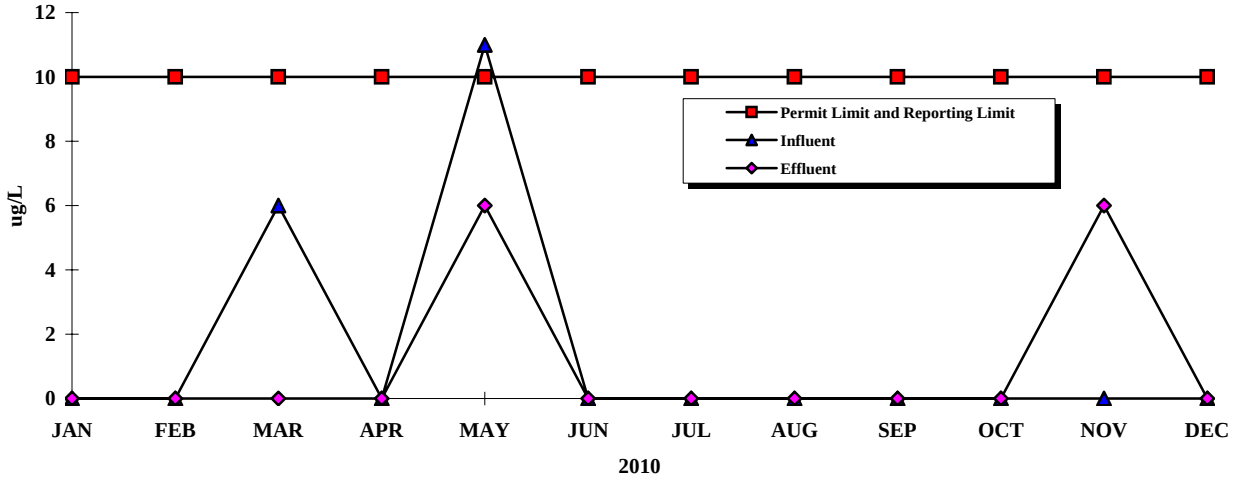
DISCHARGE 001

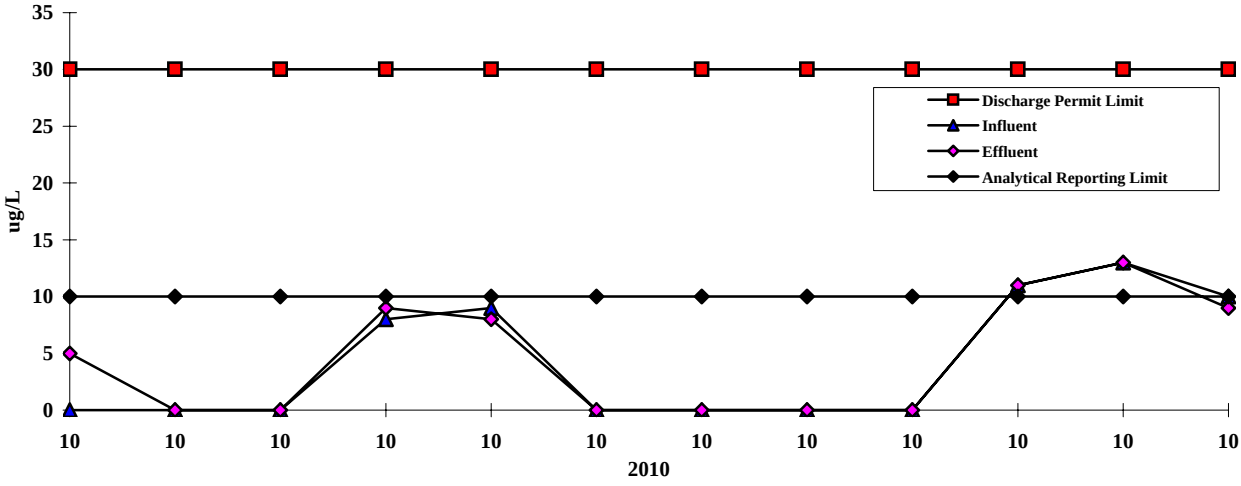
Copper (monthly average, ug/l)



Note: The analyte was not detected at or above the detection limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart (this is also the analytical reporting limit).
The daily maximum limit for Copper is 50 ug/l.

DISCHARGE 001

Nickel (monthly average, ug/l)

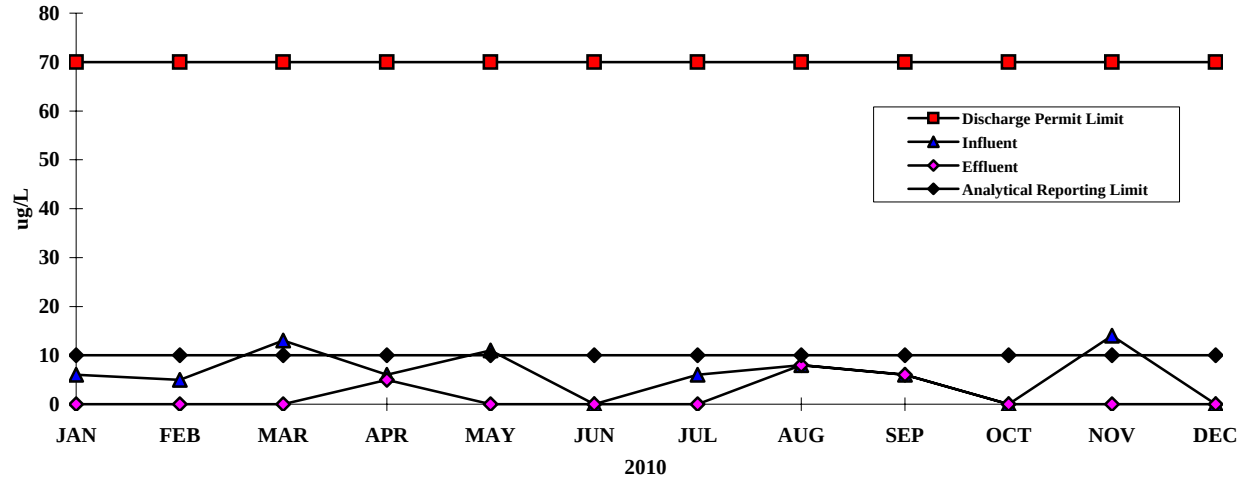


Note: The analyte was not detected at or above the detection limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Nickel is 100 ug/l.

2010 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001

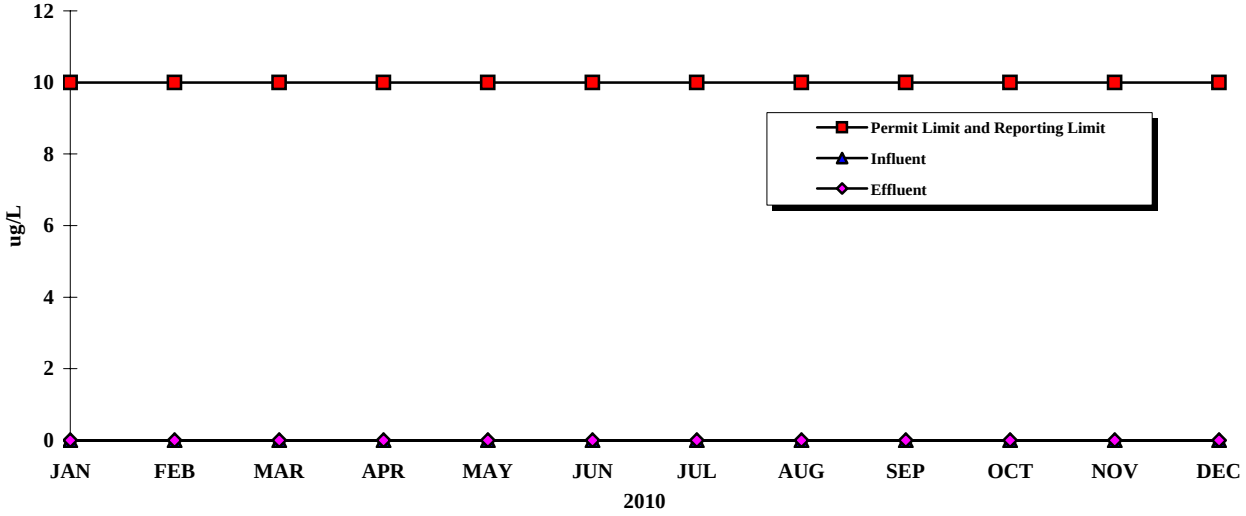
Zinc (monthly average, ug/l)



Note: The analyte was not detected at or above the detection limit for values plotted at zero.

DISCHARGE 001

Chromium (monthly average, ug/l)



Note: The analyte was not detected at or above the detection limit for values plotted at zero.
The 6-month median limit is plotted on this chart. The daily maximum limit for chromium is 40 ug/l.
The discharge permit limit and the analytical reporting limit are the same (10 ug/l).

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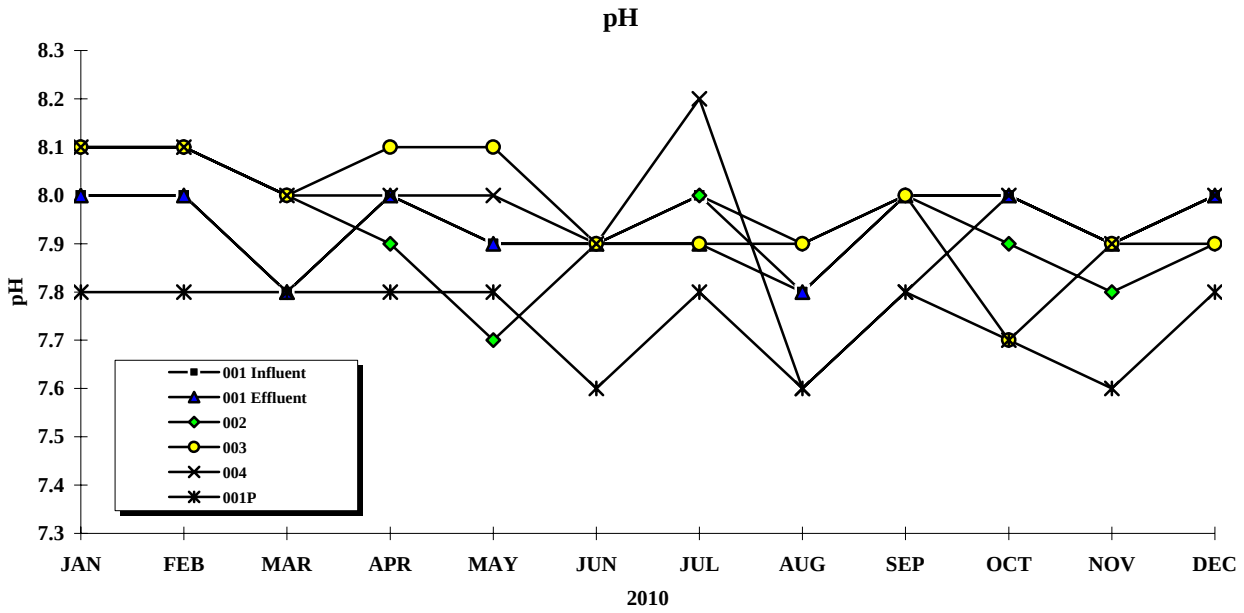
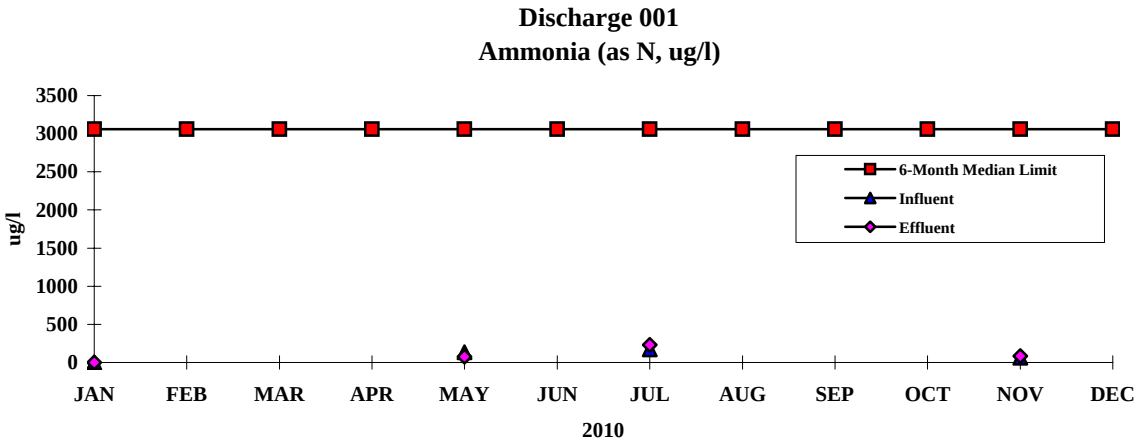


Note: Several data points on this chart overlap.



Note: The analyte was not detected at or above the detection limit for values plotted at zero.
Influent and Effluent values overlap at three points on this plot.

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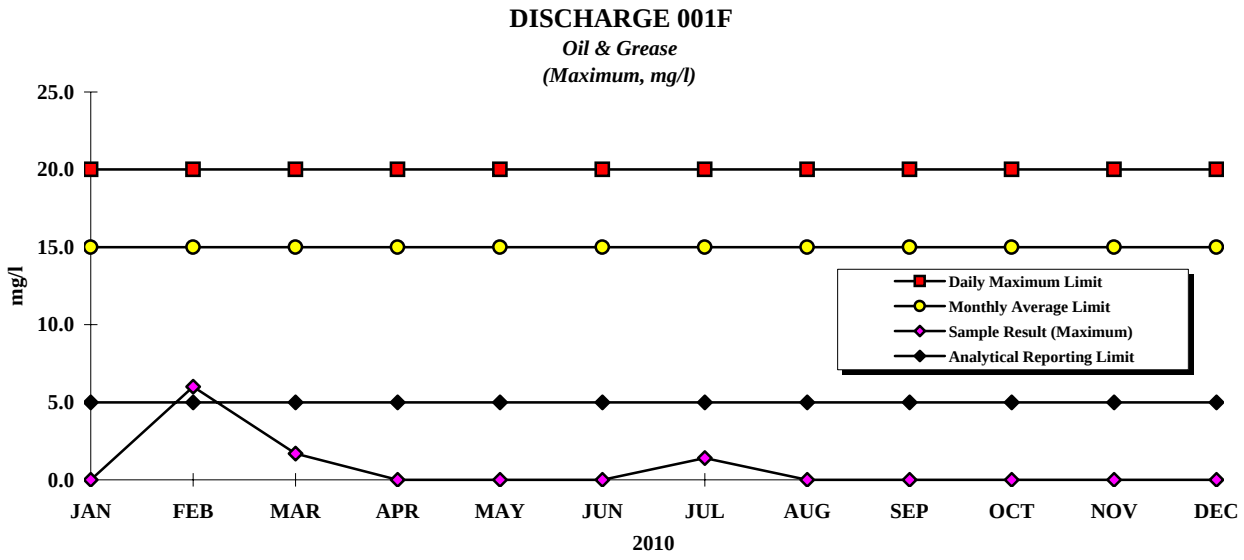
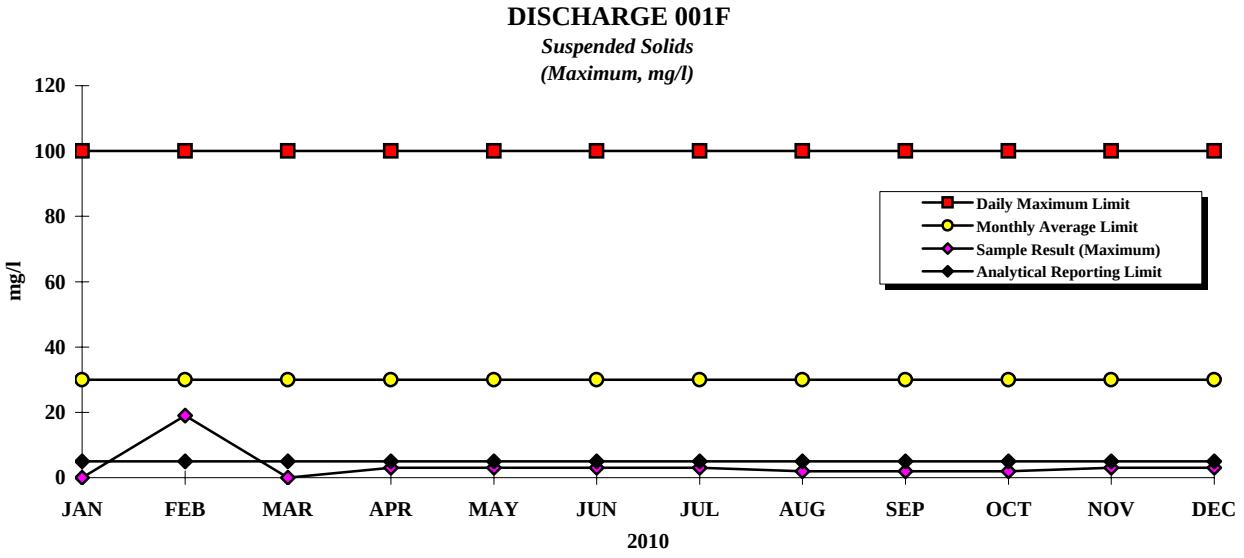


Note: Values plotted at zero were below the detection limit.



Note: Maximum values are plotted.

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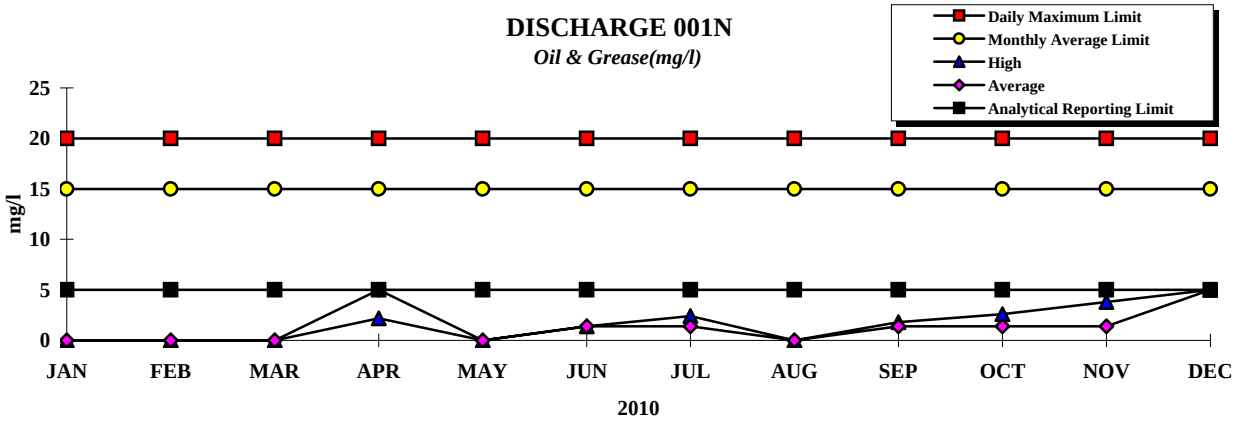
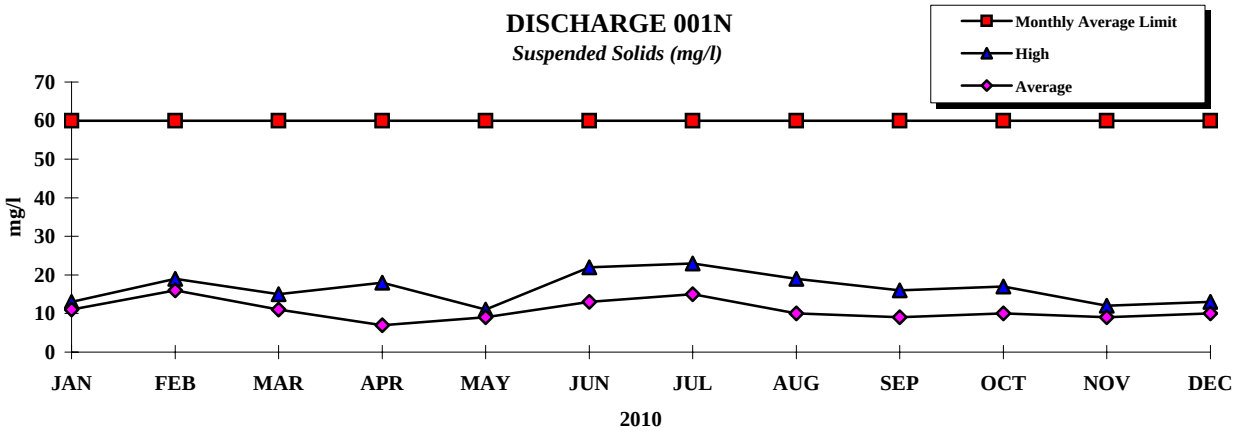
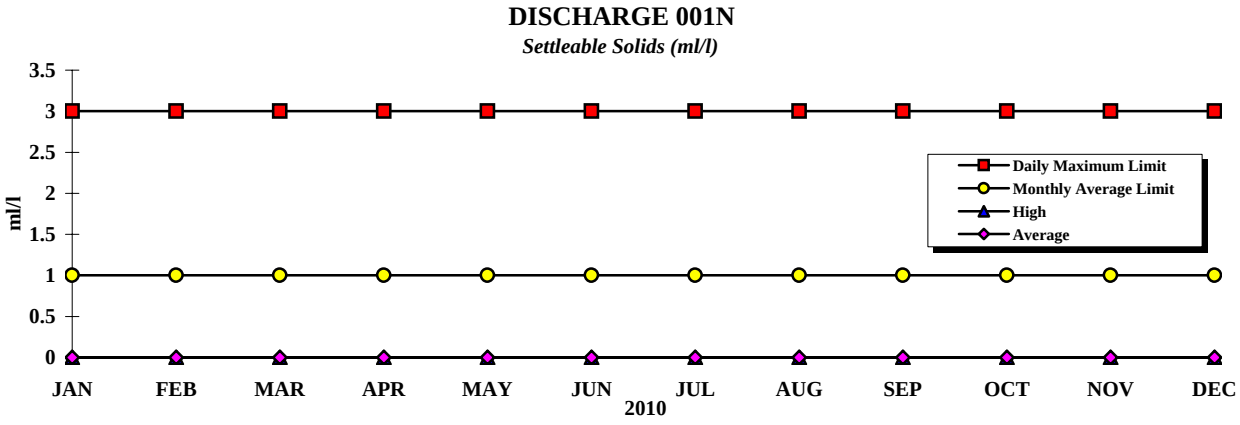


Note: Values plotted at zero were below the detection limit.
High, low and average values overlap at eleven points on this plot.





Note: Values plotted at zero were below the detection limit.
High, average, and low values overlap at eleven points on this plot.

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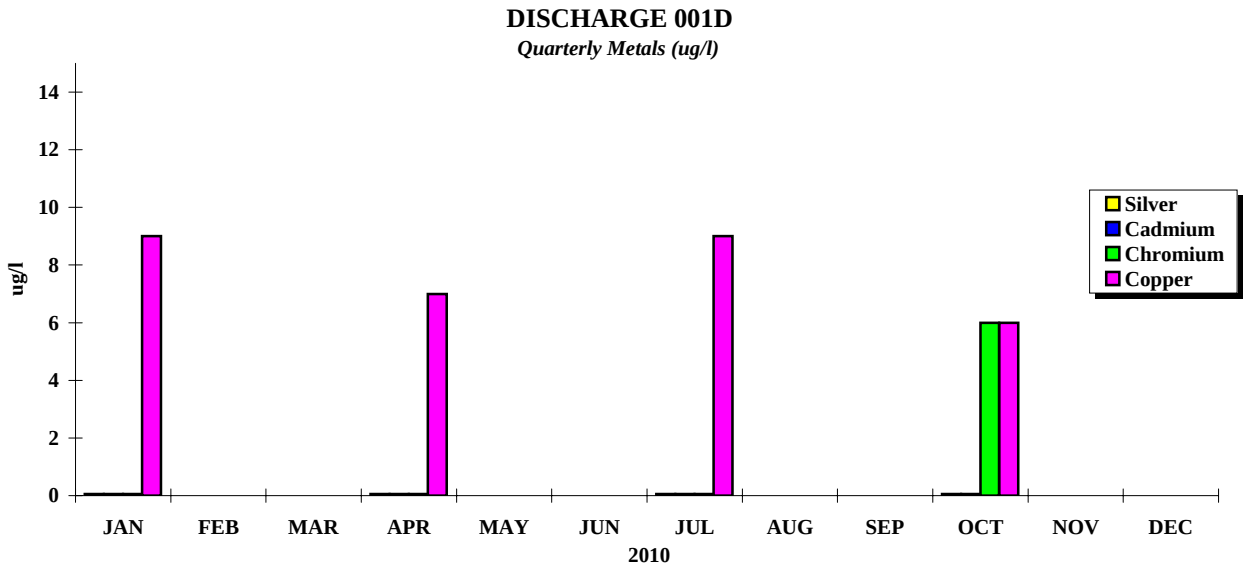
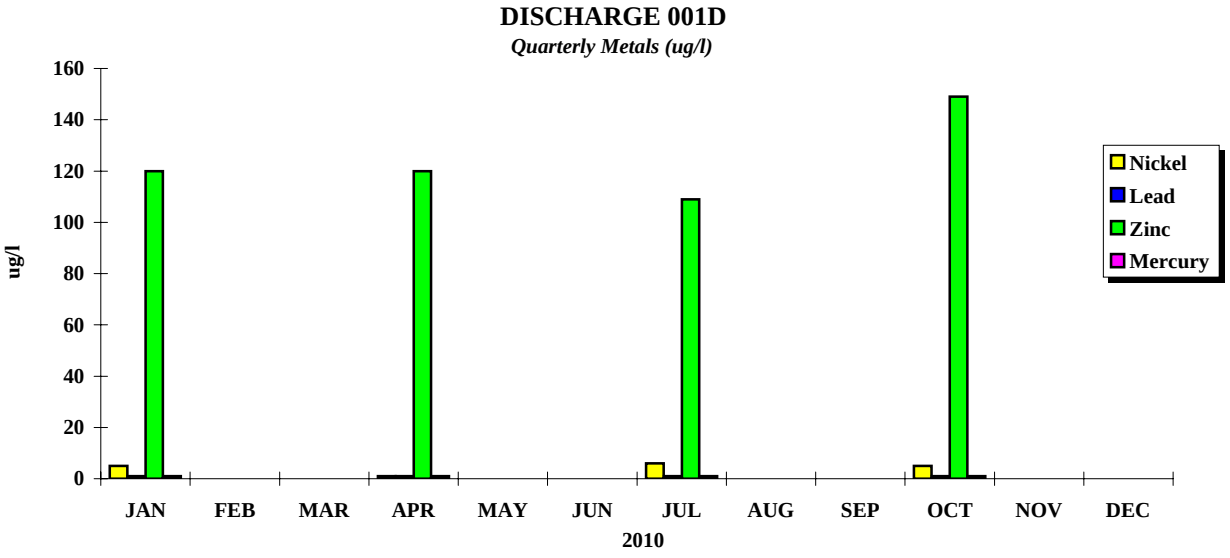


Note: The analyte was not detected at or above the detection limit for values plotted at zero.



Note: The analyte was not detected at or above the detection limit for values plotted at zero.

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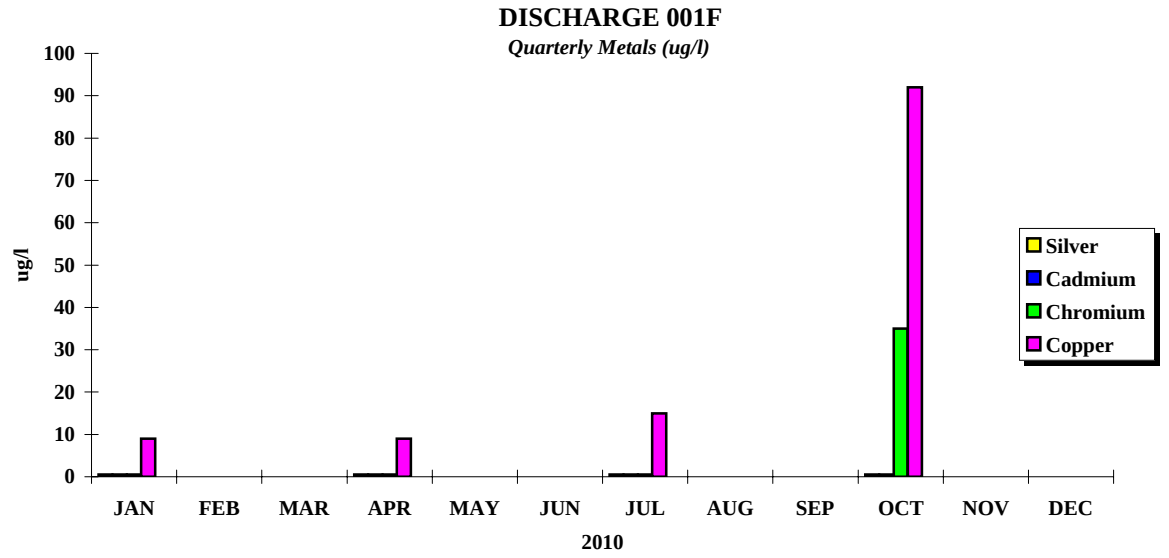
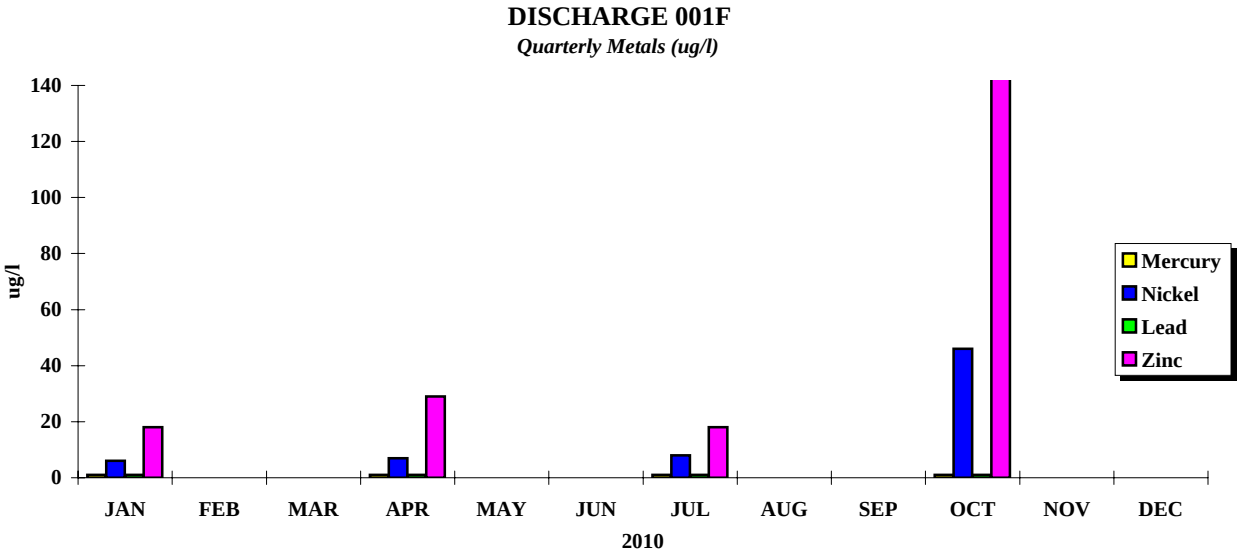
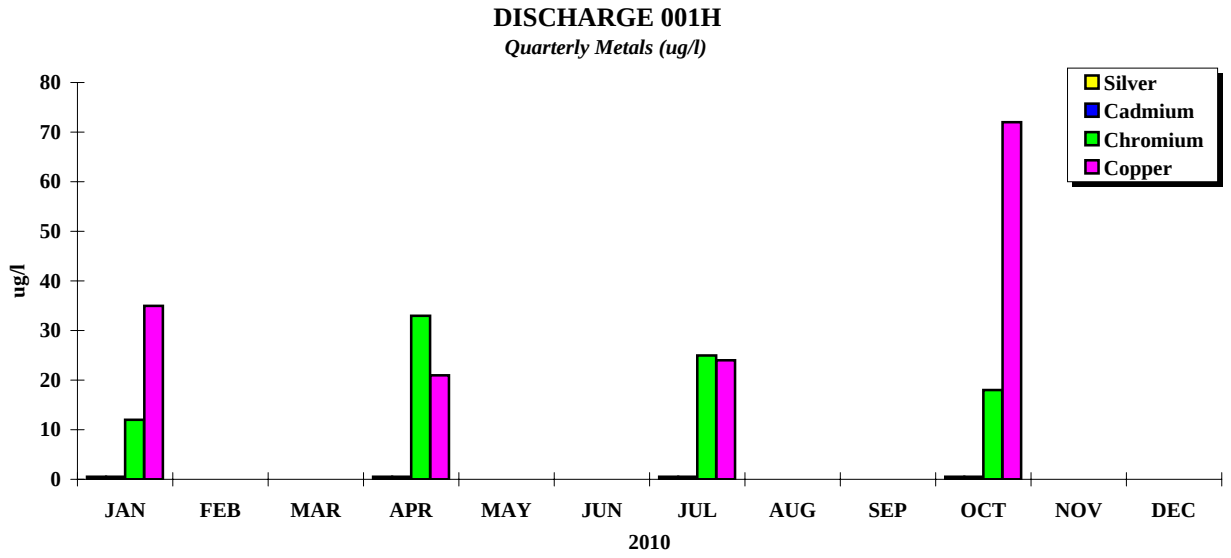


Note: The analyte was not detected at or above the detection limit for values plotted at zero.

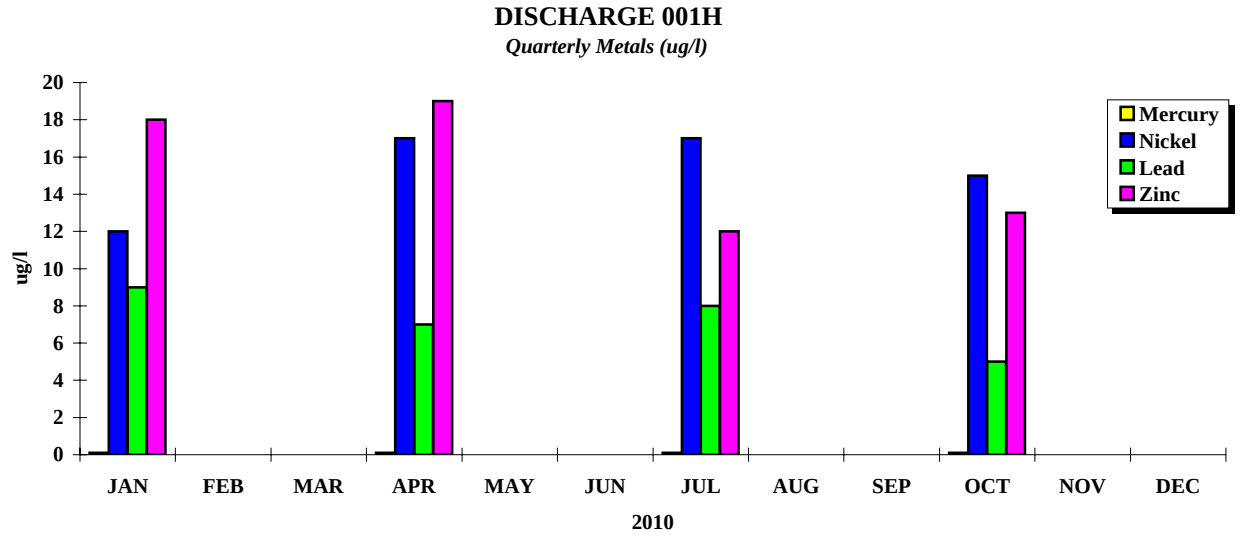


Note: The analyte was not detected at or above the detection limit for values plotted at zero.

2010 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant



Note: The analyte was not detected at or above the detection limit for values plotted at zero.

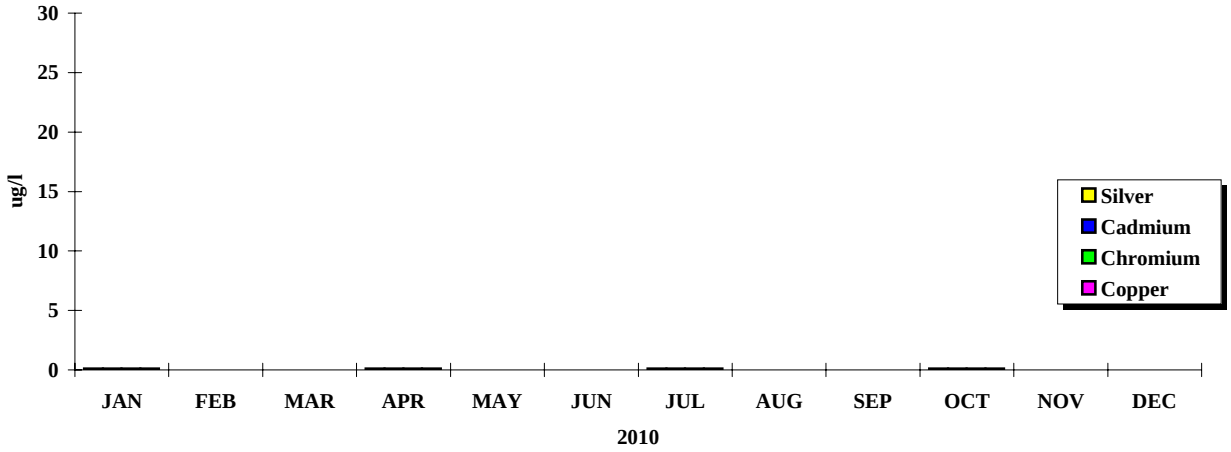


Note: The analyte was not detected at or above the detection limit for values plotted at zero.

2010 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001L

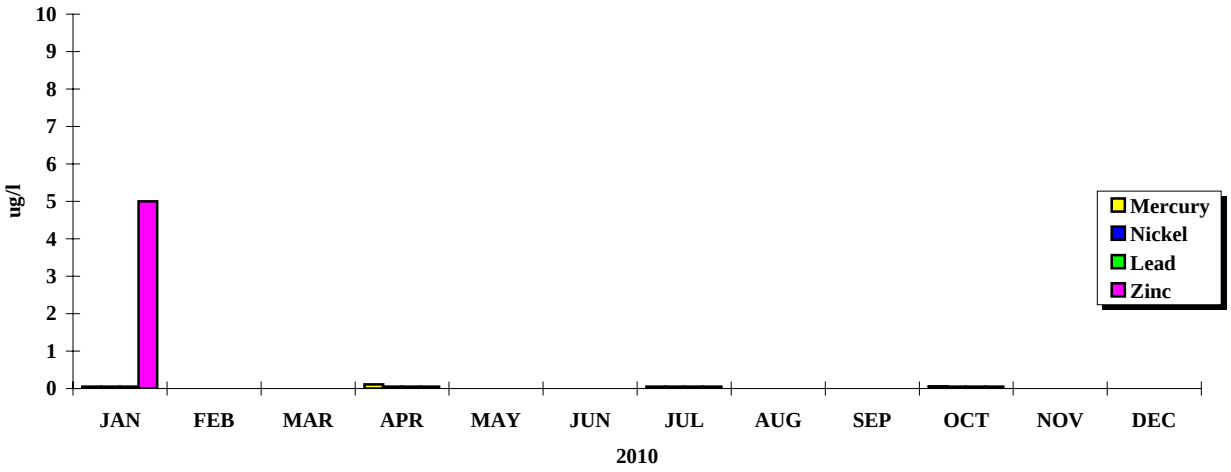
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the detection limit for values plotted at zero.

DISCHARGE 001L

Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the detection limit for values plotted at zero.

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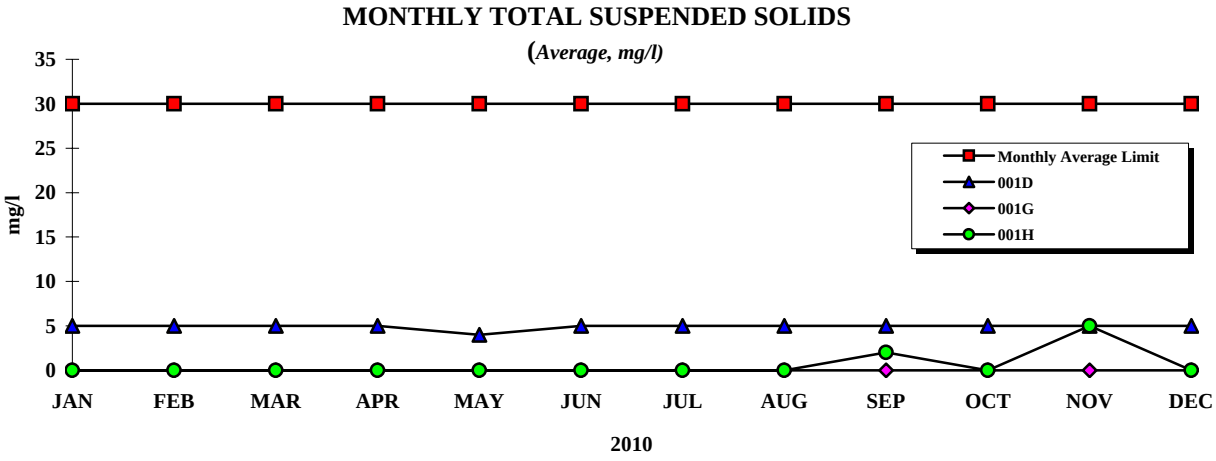
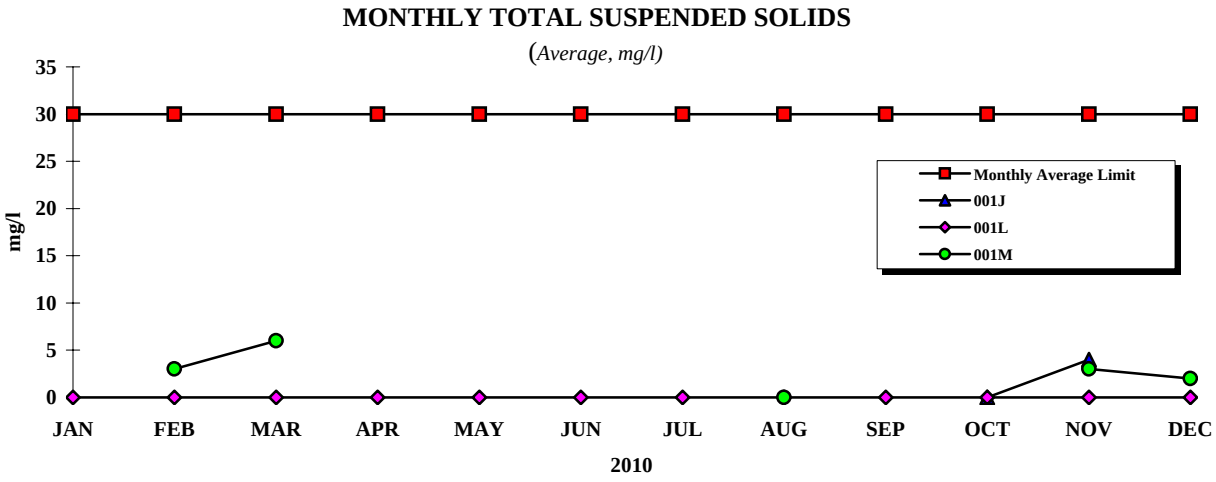
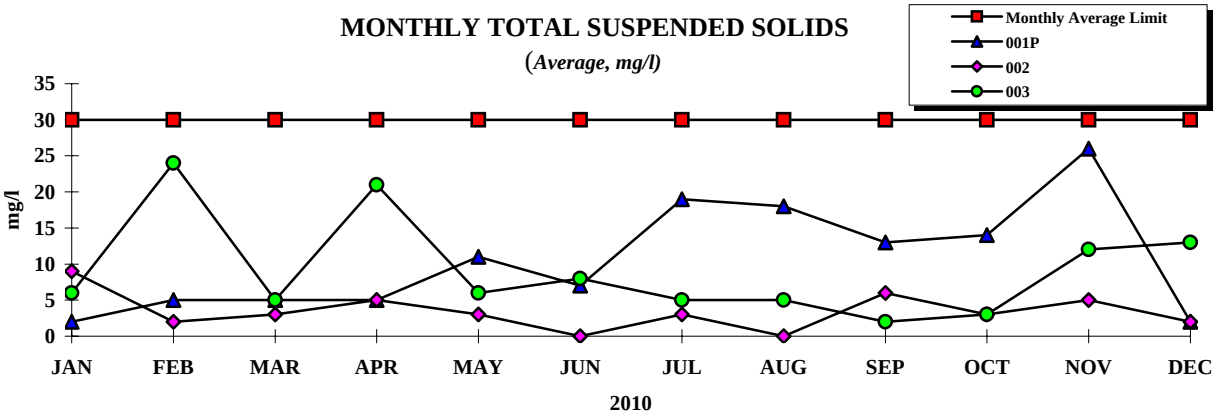


Note: Points on chart may overlap. Values plotted at zero were below the detection limit.



Note: Points on chart may overlap. Values plotted at zero were below the detection limit.



Note: Points on chart may overlap. Values plotted at zero were below the detection limit.

2010 Annual Summary Report on Discharge Monitoring
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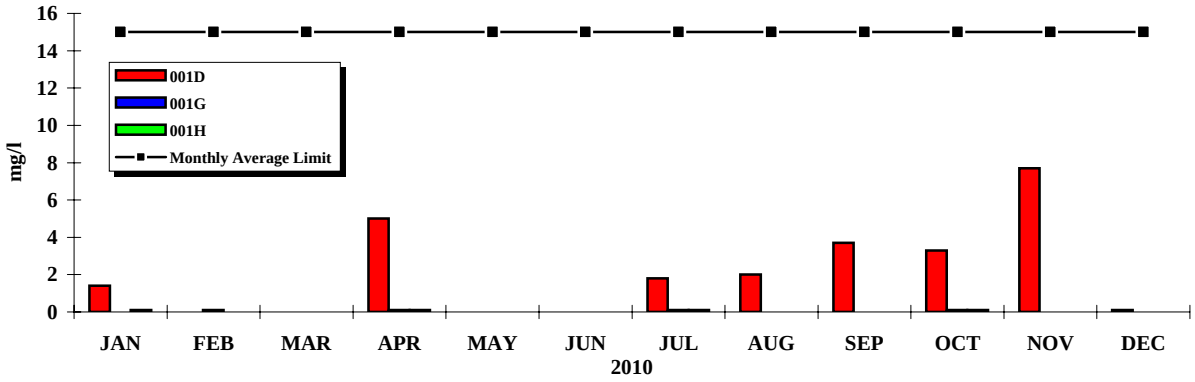
QUARTERLY OIL & GREASE

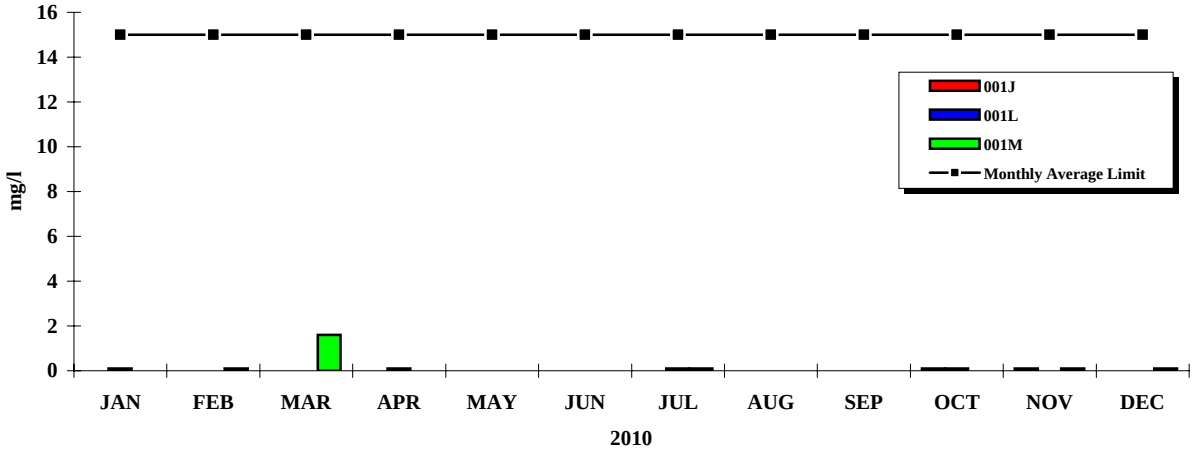
(*Average, mg/l*)



Note: Values plotted at zero were below the detection limit. Less than values are plotted at the value.
A daily maximum exceedence for 001D in April is not reflected in this plot. Only averages are plotted.

QUARTERLY OIL & GREASE

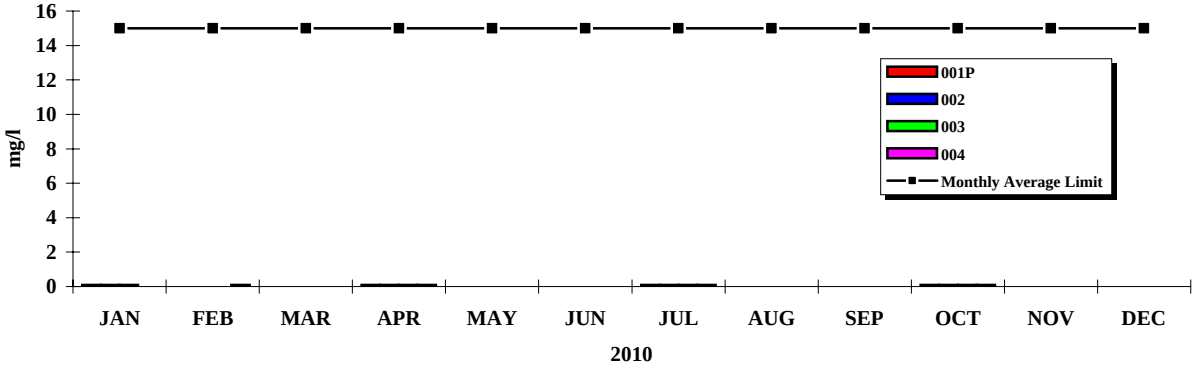
(*Average, mg/l*)



Note: Values plotted at zero were below the detection limit.

QUARTERLY OIL & GREASE

(*Average, mg/l*)



Note: Values plotted at zero were below the detection limit.

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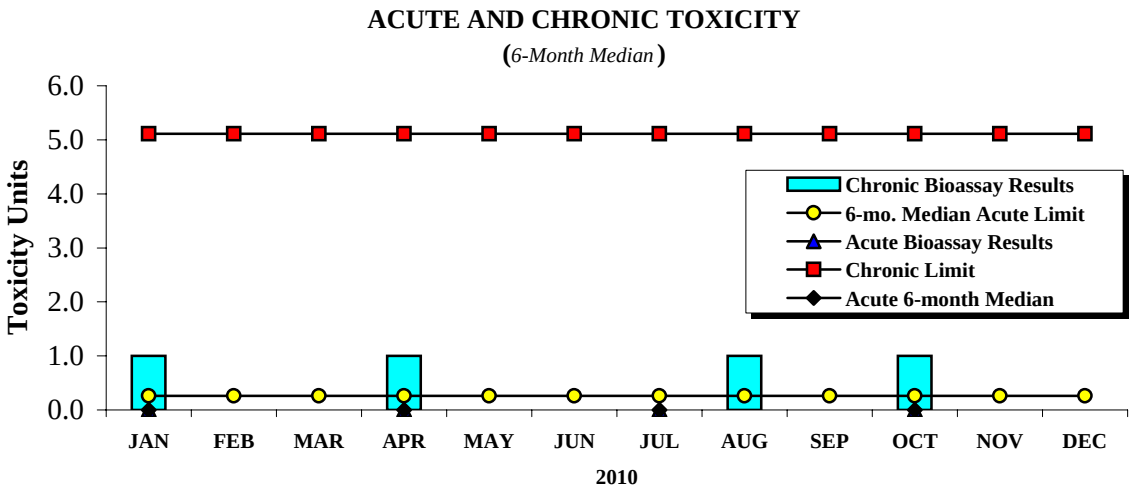

Permit Monitoring Information
2009

Annual NPDES Discharge Self Monitoring Report (DSMR) Text, Tabular, and Graphical Data Sections

25 Pages

2009 Annual Summary Report on Discharge Monitoring
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OVERVIEW

A. This annual summary report follows the format used in quarterly monitoring reports. Analytical results below the respective Reporting Limit (ND or non-detect) are plotted as a "zero" value in accordance with ELAP guidance. Less-than results are typically reported to express an average of values that include non-detects and at least one positive result. These less-than results are plotted conservatively at the value. During 2009, discharges occurred from all discharge paths except 001I, 001K, 016, and 017.

B. California Ocean Plan Table B substances that were not analyzed for have not been added to the discharge stream. The substances listed in Table B in the 1990 Ocean Plan were each analyzed for and reported in the permit renewal application for Diablo Canyon Power Plant (DCPP) submitted in October 1994 and January 2001. There have been no changes in activities conducted at the plant that would have significantly affected the results previously reported in the above referenced documents.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. Monitoring Data

a. Appendix 1 provides a list of discharge path names for ease of reference. Appendix 2 contains monitoring data in tabular form. Appendix 3 contains monitoring data in graphical form.

b. Annual oil and grease analyses were performed in October on Stormwater/Yard Drain Discharges 005, 008, 009, 013, and 015. Results were non-detect (less than 5 mg/l) for discharges 005 through 015. No discharges that resulted in adequate sample quantities occurred from 016 and no discharge occurred from 017 during 2009.

c. In October, Discharge 001D (Liquid Radioactive Waste Treatment System) annual grab samples for lithium, boron, and hydrazine were collected and analyzed. The results were non-detect (less than 0.2 mg/l), 170 mg/l, and non-detect (less than 0.003 mg/l), respectively.

2. Facility Operating and Maintenance Manual

Pacific Gas and Electric Company (PG&E) maintains a multiple volume Plant Manual at DCPP that contains procedures used for operation and maintenance activities at the plant, including those activities that relate to wastewater handling, treatment, sampling, analysis and discharge.

Plant procedures are prepared and reviewed by DCPP Staff and approved by DCPP Management. DCPP conducts biennial internal audits that review NPDES Plant procedures contained in the manual. Ongoing reviews of Plant procedures are conducted to assure that the manual remains valid, current, and complete for the facility.

3. Laboratories Used to Monitor Compliance

The following laboratories were used during 2009 for monitoring compliance. They are certified under the appropriate agencies for the test/analyses they perform. As part of the on-going annual certification process, these laboratories take part in, and have passed, annual quality performance evaluation testing.

a. PG&E Chemistry Laboratory, DCPP, Avila Beach, California (Lab Certification # CA01036)

b. Aquatic Bioassay Consultants, Ventura, California (Lab Certification # CA01907)

c. Creek Environmental, San Luis Obispo, California (Lab Certification # CA00975)

d. Columbia Analytical Services, Kelso, Washington (Lab Certification # WA00035)

e. Test America, Inc., Earth City, Missouri (Lab Certification # MO00054)

Results were also reported from Calscience Environmental Laboratories (CA-ELAP Lab #1230). These results were from samples taken by Liberty Composting of Bakersfield, CA of sewage treatment sludge received at their facility originating from the DCPP discharge 001N pathway. The results were provided by Calscience back to the contractor that operates DCPP's sewage treatment unit. The sample results are reported by PG&E as a courtesy, and not used to demonstrate compliance with the annual 001N pathway sludge analyses required by DCPP's NPDES Permit.

4. Review of Compliance Record and Corrective Actions

a. Circulating Water Pump Chlorination/Bromination Monitoring

The 2009 quarterly NPDES reports discuss chlorination cycles when discharge monitoring was interrupted. These are listed below with brief descriptions of the cause and corrective action. When these monitoring interruptions occurred, engineering evaluations (approved by the CCRWQCB January 13, 1994; PG&E Letter No. DCL-94-002) were performed. Detailed descriptions of these evaluations are included in the quarterly reports. Evaluations concluded that discharge chlorine limits were not exceeded during these events.

Date	Chlorination Cycle Monitoring Interruptions	Cause	Corrective Action
07/01/09 to 07/08/09	Unit 2 42 Readings	Calibration shifted following start-up of monitor.	Monitor recalibrated.
09/02/09 to 09/09/09	Unit 1 41 Readings	Calibration shifted following start-up of monitor.	Monitor recalibrated.
11/06/09	Unit 2 1 Reading	Chlorine monitor malfunction.	Monitor repaired, grab sample used.

c. Closed Cooling Water Releases

During 2009, maintenance activities that required draining of closed cooling water systems were performed and are summarized below. PG&E received concurrence from the CCRWQCB in response to letters dated July 19, 1995 (PG&E Letter DCL-95-156), May 23, 1996 (PG&E Letter DCL-96-522), and May 19, 1997 (PG&E Letter DCL-97-533) regarding the use of glutaraldehyde and isothiazolin to control microbiological growth and corrosion in DCPP's closed cooling water systems. Any drainage from these systems is discharged at a flow-rate such that the chronic toxicity level is below the "No Observable Effect Concentration" (NOEC) at NPDES Discharge 001. The volumes of cooling water drained in 2009 from the component cooling water (CCW), intake cooling water (ICW), and service cooling water (SCW) systems are presented below. The glutaraldehyde (Glut) and isothiazoline (Iso) concentrations presented in the table below are system concentrations, not concentrations at the point of discharge to receiving water.

Date	System	Volume (gallons)	Glut (mg/l)	Iso (mg/l)	Total Suspended Solids (mg/l)	Oil & Grease (mg/l)	Reason & Comments
01/16/09	Unit 2 SCW	10	73	22	n/a	n/a	Routine Maintenance
01/15/09	Unit 1 CCW	7,000	110	0.0	< 2.0	< 1.4	Routine Maintenance
01/21/09	Unit 2 SCW	33,000	118	7.2	< 2.0	< 1.4	Routine Maintenance
01/26/09	Unit 1 SCW	11,000	240	5.3	< 2.0	< 1.4	Routine Maintenance
01/29/09	Unit 1 ICW	1,500	128	6.2	n/a	n/a	Routine Maintenance
02/10/09	Unit 1 CCW	3,700	144	0.0	< 2.0	< 1.4	Routine Maintenance
03/03/09	Unit 1 ICW	550	0.0	0.0	n/a	n/a	Routine Maintenance
03/12/09	Unit 1 ICW	3,300	95	0.0	n/a	n/a	Routine Maintenance
06/04/09	Unit 2 ICW	3,367	91	6.6	n/a	n/a	Routine Maintenance
07/20/09	Unit 1 SCW	33,600	163	5.3	2.6	<1.4	Routine Maintenance
07/28/09	Unit 2 SCW	33,500	51	5.7	<2.0	<1.4	Routine Maintenance
08/20/09	Unit 1 ICW	3,300	58	2.5	n/a	n/a	Routine Maintenance
08/28/09	Unit 1 SCW	25	65	2.4	n/a	n/a	Routine Maintenance
08/29/09	Unit 2 SCW	12	66	1.3	n/a	n/a	Routine Maintenance
09/09/09	Unit 2 CCW	4,000	140	n/a	<2.0	<1.4	Routine Maintenance
10/04/09	Unit 2 SCW	100	118	2.6	n/a	n/a	Routine Maintenance
12/18/09 to 12/23/09	Unit 2 SCW	72	64	8	n/a	n/a	Valve Leakage

d. An exceedance of the 100 mg/L daily maximum limit for total suspended solids (TSS) from discharge 001P occurred on January 22, 2009. Extra sampling was being performed to support preparation of a baseline profile for TSS during routine backwashing of one of the seawater reverse osmosis (SWRO) facility media filters. This work was being performed as follow-up to a TSS exceedance that had been measured at discharge 001P during the 4th Quarter of 2008. The daily maximum for TSS on January 22nd was 127 mg/L. The monthly average for January 2009 of 46 mg/L also exceeded the respective 30 mg/L permit limit by 53.3% as a result of this event. CCRWQCB staff were notified of the exceedance on January 25, 2009 via voice-mail when analysis results became available.

   The SWRO was subsequently shut down for an extended period at the end of January to implement planned electrical breaker work, and was not restarted until February 8th. While the SWRO was shut down, a temporary in-line tank (20,000 gallon baffled transportable baker tank) was installed to facilitate settling and capture of backwash solids. An additional temporary 10,000 gallon mixing tank was also installed to receive the settling tank effluent as well as non-backwash brine prior to discharge of the combined SWRO system waste water effluents to the 001P pathway. Following SWRO restart, extensive troubleshooting and additional sampling was performed during February and March of 2009 with these engineering controls in place. The settling tank was found to be effective at trapping a large portion of entrained filter backwash solids, and the mixing tank effective at further moderating entrained solids peaks during the periodic short term filter backwash cycles. No further exceedances of the discharge limitation for TSS occurred for the remainder of 2009. The installed interim controls will remain in use pending completion of planning and installation of similar permanent engineering controls.

B. Monitoring of Receiving Water

1. Ecological Studies at Diablo Canyon

Marine ecological monitoring was continued during 2009 under the Receiving Water Monitoring Program (RWMP) as requested in a letter from the Central Coast Regional Water Quality Control Board (CCRWQCB) dated December 9, 1998, and as detailed in a letter from PG&E dated January 8, 1999 (DCL-99-503). This program includes tasks from the Ecological Monitoring Program (EMP) with additional stations and increased sampling frequencies. This program replaces the EMP and the Thermal Effects Monitoring Program (TEMP). Several one-year-only

tasks outlined in the above letters were completed in 1999 and were not requested to be performed in 2009. Results of 2008 RWMP data were submitted to the CCRWQCB on April 30, 2009. A table in Appendix 4 summarizes requirements and completed tasks for 2009.

2. In Situ Bioassay

   Results of the Mussel Watch Program are reported to the CCRWQCB directly by the California Department of Fish and Game in the agency's periodic report for this program.

C. Sodium Bromide Treatment Program

DCPP continued its integrated sodium bromide and "foul release coating" strategy to control macrofouling in the Circulating Water System (CWS). The treatment program consists of six 20-minute injections (at four hour intervals) of a blend of generic sodium bromide and sodium hypochlorite into DCPP's seawater intake conduits. Each injection attempts to achieve a target concentration of 200 parts per billion (ppb) Total Residual Oxidant (TRO) at the inlet waterbox of the main condensers. Discharge TRO, measured at the plant outfall, remained below NPDES limitations. Typically, discharge values were between 20 ppb and 50 ppb. In conjunction with the chemical treatment, untreated portions of the cooling water system were previously painted with a non-toxic "foul release coating" to reduce or prevent attachment of fouling organisms.

In anticipation of the IR15 refueling outage, sodium bromide injections were terminated for both Unit 1 conduits in early January 2009. Sodium hypochlorite injections six times a day continued for microfouling control in the condenser until late January, just before the start of 1R15. Unit 1 injections remained off through 1R15 until mid-March 2009 when simultaneous sodium hypochlorite and sodium bromide injections were reinitiated as Unit 1 Circulating Water Pumps were restarted. Simultaneous injections continued through the remainder of 2009 with only brief interruptions for maintenance activities in June and mid-October.

Both conduits of Unit-2 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day through the end of September 2009 with brief interruptions for maintenance activities in late January, mid-February, mid-May, and early June. Injections were also shut down briefly for conduit 2-2 in early July due to an unscheduled curtailment of Circulating Water Pump 2-2. At the end of September sodium bromide injections were shut down for refueling outage 2R15. Sodium hypochlorite injections were shut down in early October. Simultaneous injections for both Unit 2 conduits were restarted in early November and continued uninterrupted through the remainder of the fourth quarter.

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DISCHARGE 001

	TEMPERATURE (DEG F)								FLOW (MGD)		
	INFLUENT			EFFLUENT			DELTA T				
Month	high	low	avg	high	low	avg	high	avg	high	low	avg
JAN	55.6	53.0	54.0	74.7	70.8	73.0	19.4	18.9	2486	1279	2248
FEB	55.7	53.2	54.3	73.5	71.4	72.3	19.0	18.0	1279	1279	1279
MAR	54.9	49.2	51.6	73.8	59.9	67.6	19.2	16.0	2486	1279	1871
APR	52.9	47.5	50.1	71.6	66.4	68.9	19.4	18.8	2486	2486	2486
MAY	54.2	48.3	50.9	72.7	67.1	69.4	18.8	18.5	2486	1862	2412
JUN	55.8	51.6	53.5	73.9	69.7	71.9	18.9	18.4	2486	2278	2479
JUL	55.0	51.4	53.2	73.6	68.5	71.6	19.2	18.4	2486	1862	2434
AUG	54.6	51.8	53.3	72.9	56.0	68.3	19.2	15.0	2486	2486	2486
SEP	56.9	53.2	55.0	75.9	66.3	71.9	19.6	16.9	2486	2486	2486
OCT	60.7	52.7	56.1	79.3	69.1	74.9	20.2	18.9	2486	933	1358
NOV	56.7	54.4	55.4	74.8	65.9	72.4	19.1	17.0	2486	1239	2286
DEC	56.7	54.5	55.6	75.8	73.4	74.7	19.2	19.1	2486	2486	2486
limit:		-			-		22		2760		

The Influent and Effluent "high" and "low" temperture values correspond to the highest and lowest daily average value for that month. The Influent high and low temperature does not necessarily correspond to the same day as the Effluent high and low temperature for that month. The "avg" temperature for Influent and Effluent is the average for the entire month. The Monthly Delta T "high" is the highest Delta T for a day of the month based on daily average Influent and Effluent temperature values. The "Avg" temperature is calculated from Influent and Effluent monthly avg values.

DISCHARGE 001

	TOTAL RESIDUAL CHLORINE (daily max. ug/l)			TOTAL CHLORINE USED (lbs/day)		
Month	high	low	avg	high	low	avg
JAN	49	<20	31	504	182	370
FEB	78	<20	17	274	192	244
MAR	47	<7	12	403	230	326
APR	43	12	28	504	432	462
MAY	39	<10	14	461	202	379
JUN	25	<7	10	662	326	543
JUL	47	15	30	677	562	609
AUG	57	21	36	619	562	587
SEP	66	30	41	634	576	598
OCT	37	<20	16	502	202	293
NOV	43	<20	30	576	238	504
DEC	57	25	42	590	518	543

Note: The residual chlorine limits in Permit CA0003751, Order 90-09, is an instantaneous max of 200 ug/l, and includes a time-based limit (per the Ocean Plan) which depends on the length of the respective chlorination cycle.

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DISCHARGE 001

METALS (monthly avg. ug/l)

	CHROMIUM		COPPER		NICKEL		*ZINC	
Month	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
FEB	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
APR	ND(10)	ND(10)	ND(10)	ND(10)	14	14	ND(10)	ND(10)
MAY	ND(10)	ND(10)	ND(10)	ND(10)	14	12	ND(10)	ND(10)
JUN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
AUG	ND(10)	ND(10)	ND(10)	ND(10)	11	11	ND(10)	ND(10)
SEP	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	19	ND(10)
OCT	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	14	ND(10)
NOV	ND(10)	ND(10)	ND(10)	ND(10)	14	15	ND(10)	ND(10)
DEC	ND(10)	ND(10)	ND(10)	ND(10)	11	11	ND(10)	ND(10)
6-month median limit:		10	-	10	-	30	-	70

DISCHARGE 001
VARIOUS ANNUAL ANALYSES
(monthly avg. ug/l)

Parameter	Influent	Effluent	6-Mo. Med. Effluent Limit
Arsenic	1.35	1.35	30
Cadmium	ND(10)	ND(10)	10
Cyanide	ND(10)	ND(10)	30
Lead	ND(10)	ND(10)	10
Mercury	ND(0.001)	ND(0.001)	0.2
Silver	ND(10)	ND(10)	2.9
Titanium	-	1.0	none
*Phenolic Compounds (non-chlorinated)	ND(13.3)	ND(14.0)	150
**Phenolic Cmpds (chlorinated)	ND(3.35)	ND(3.50)	10
***PCB's	ND(1.52)	ND(1.59)	none

*Reporting limits shown are the sum of individual Reporting Limits for 8 target compounds.
**Reporting limits shown are the sum of individual Reporting Limits for 6 target compounds.
***Reporting limits shown are the sum of individual Reporting Limits for 7 target compounds.

DISCHARGE 001
AMMONIA (as N) (ug/l)

Month	Influent	Effluent
JAN	ND(200)	ND(200)
FEB		
MAR		
APR	ND(200)	ND(200)
MAY		
JUN		
JUL	ND(200)	ND(200)
AUG		
SEP		
OCT	ND(200)	ND(200)
NOV		
DEC		
6-month median limit:		3,060

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MONTHLY pH (averages)

Discharge:	001		002	003	004	001P
Month	Influent	Effluent				
JAN	8.0	7.9	8.0	8.1	8.0	7.8
FEB	8.0	8.0	8.0	8.1	8.0	7.7
MAR	8.0	8.1	7.9	7.7	8.0	7.8
APR	7.7	7.7	8.0	8.0	8.1	7.5
MAY	8.1	8.1	7.9	7.9	7.9	7.6
JUN	7.9	7.9	7.9	7.9	7.9	7.8
JUL	7.7	7.7	7.9	7.9	7.9	7.7
AUG	8.0	8.0	8.0	8.0	8.0	7.7
SEP	8.0	8.1	8.1	8.1	8.1	7.8
OCT	7.9	7.9	8.2	8.0	8.0	7.6
NOV	8.0	8.1	7.9	8.1	8.0	7.8
DEC	8.0	8.0	7.9	8.0	7.9	7.8

DISCHARGE 001F

	GREASE & OIL (mg/l)		SUSPENDED SOLIDS (mg/l)	
Month	high	avg	high	avg
JAN	ND(5.0)	ND(5.0)	ND(5)	ND(5)
FEB	ND(5.0)	ND(5.0)	ND(5)	ND(5)
MAR	ND(5.0)	ND(5.0)	ND(5)	ND(5)
APR	ND(5.0)	ND(5.0)	ND(5)	ND(5)
MAY	ND(5.0)	ND(5.0)	8	7
JUN	ND(5.0)	ND(5.0)	ND(5)	ND(5)
JUL	ND(5.0)	ND(5.0)	ND(5)	ND(5)
AUG	ND(5.0)	ND(5.0)	ND(5)	ND(5)
SEP	ND(5.0)	ND(5.0)	ND(5)	ND(5)
OCT	ND(5.0)	ND(5.0)	ND(5)	ND(5)
NOV	ND(5.0)	ND(5.0)	ND(5)	ND(5)
DEC	ND(5.0)	ND(5.0)	6	6
limit:	20	15	100	30

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average Limits.

DISCHARGE 001N

(Monthly Summary of Weekly Data)

	GREASE & OIL (mg/l)			SUSPENDED SOLIDS (mg/l)			SETTLEABLE SOLIDS (ml/l)		
Month	high	low	avg	high	low	avg	high	low	avg
JAN	6.5	ND(5)	<5.0	31	11	19	ND(0.1)	ND(0.1)	ND(0.1)
FEB	10.0	ND(5)	<5.0	36	18	24	ND(0.1)	ND(0.1)	ND(0.1)
MAR	17.0	ND(5)	6.6	74	15	40	0.1	ND(0.1)	<0.1
APR	ND(5.0)	ND(5.0)	ND(5.0)	36	ND(5)	17	ND(0.1)	ND(0.1)	ND(0.1)
MAY	ND(5.0)	ND(5.0)	ND(5.0)	10	5	7	ND(0.1)	ND(0.1)	ND(0.1)
JUN	ND(5.0)	ND(5.0)	ND(5.0)	13	5	8	ND(0.1)	ND(0.1)	ND(0.1)
JUL	ND(5.0)	ND(5.0)	ND(5.0)	19	9	13	ND(0.1)	ND(0.1)	ND(0.1)
AUG	ND(5.0)	ND(5.0)	ND(5.0)	24	7	15	ND(0.1)	ND(0.1)	ND(0.1)
SEP	ND(5.0)	ND(5.0)	ND(5.0)	34	10	32	ND(0.1)	ND(0.1)	ND(0.1)
OCT	ND(5.0)	ND(5.0)	ND(5.0)	26	7	15	ND(0.1)	ND(0.1)	ND(0.1)
NOV	ND(5.0)	ND(5.0)	ND(5.0)	13	8	11	ND(0.1)	ND(0.1)	ND(0.1)
DEC	ND(5.0)	ND(5.0)	ND(5.0)	16	11	13	ND(0.1)	ND(0.1)	ND(0.1)
limit:	20	-	15	-	-	60	3.0	-	1.0

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average limits.

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DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	<10	36	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	11	15
FEB																
MAR																
APR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	14	48	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	19
MAY																
JUN																
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	27	35	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	11
AUG																
SEP																
OCT	ND(10)	ND(10)	12	ND(10)	ND(10)	ND(10)	16	31	ND(10)	ND(10)	ND(10)	<10	ND(10)	ND(10)	ND(10)	14
NOV					ND(10)	ND(10)	13	89								
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn
JAN	ND(0.20)	ND(10)	ND(10)	41	ND(0.20)	13	<10	18	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	22	ND(10)	35
FEB																
MAR																
APR	ND(0.20)	ND(10)	ND(10)	84	ND(0.20)	12	ND(10)	12	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	44
MAY																
JUN																
JUL	ND(0.20)	ND(10)	ND(10)	53	ND(0.20)	17	ND(10)	27	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	24
AUG																
SEP																
OCT	ND(0.20)	ND(10)	ND(10)	131	ND(0.20)	19	ND(10)	15	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	13	ND(10)	27
NOV					ND(0.20)	17	ND(10)	12								
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

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MONTHLY TOTAL SUSPENDED SOLIDS

Averages (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003
JAN	<5	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	46	ND(5)	ND(5)
FEB	<5	ND(5)	ND(5)				ND(5)	ND(5)	27	7	5
MAR	8	ND(5)	ND(5)		ND(5)		ND(5)		9	ND(5)	ND(5)
APR	<5	ND(5)	ND(5)				ND(5)		17	ND(5)	6
MAY	<5	ND(5)	ND(5)				ND(5)		19	7	22
JUN	<5	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	6	ND(5)	ND(5)
JUL	<5	ND(5)	ND(5)		ND(5)		ND(5)		5	ND(5)	8
AUG	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	ND(5)	9
SEP	<5	ND(5)	<5		ND(5)		ND(5)		5	ND(5)	ND(5)
OCT	<5	ND(5)	ND(5)		ND(5)		ND(5)	10	5	<5	ND(5)
NOV	<5	ND(5)	ND(5)		ND(5)		ND(5)	20	18	ND(5)	ND(5)
DEC	<5	ND(5)	ND(5)				ND(5)		10	ND(5)	19
Limit:	30	30	30	30	30	30	30	30	30	30	-

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2009.
Blank spots for other discharge points indicate that no discharge occurred during that particular month.

QUARTERLY GREASE & OIL

Averages by Month (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003	004
JAN	ND(5)	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
FEB								ND(5)				
MAR					ND(5)							
APR	<5.0	ND(5.0)	ND(5.0)				ND(5.0)		ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
MAY	<5.0						ND(5.0)					
JUN	ND(5.0)				ND(5.0)			ND(5.0)				
JUL	6.2	ND(5.0)	ND(5.0)		ND(5.0)		ND(5.0)		ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
AUG	<5.0											
SEP	ND(5.0)				ND(5.0)							
OCT	<5.0	ND(5.0)	ND(5.0)		ND(5.0)		ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
NOV								ND(5.0)				
DEC												
Limit:	15	15	15	15	15	15	15	15	15	15	15	15

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2009.

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QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING
(toxicity units, tu_a and tu_c)

Month	ACUTE Test Result	ACUTE 6-Month Median	*CHRONIC Test Result
JAN			
FEB	0.00	0.00	1.0
MAR			
APR	0.00	0.00	1.0
MAY			
JUN			
JUL			
AUG	0.23	0.23	1.0
SEP			
OCT	0.00	0.23	1.0
NOV			
DEC			
6-month median limit:		0.26	5.1

* This parameter is monitored for the State Ocean Plan instead of the NPDES Permit. A value of 1.0 indicates no chronic toxicity.

DISCHARGE 001N
ANNUAL ANALYSES

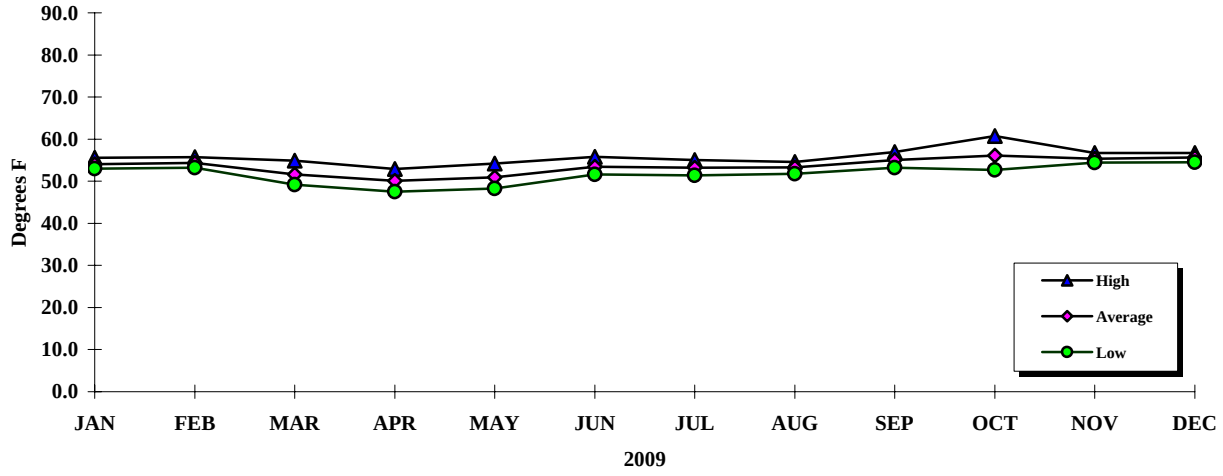
Sludge Parameter	Result	Limit
Percent Moisture	99%	None
Total Kjeldahl Nitrogen	880 mg/kg	None
Ammonia (N)	120 mg/kg	None
Nitrate (N)	ND(0.1) mg/kg	None
Total Phosphorus	65.0 mg/kg	None
pH	7.1	None
Oil and Grease	12.0 mg/kg	None
Boron	8.9 mg/kg	None
Cadmium	0.06 mg/kg	10 X STLC*
Copper	32.0 mg/kg	10 X STLC
Chromium	0.7 mg/kg	10 X STLC
Lead	0.9 mg/kg	10 X STLC
Nickel	0.7 mg/kg	10 X STLC
Mercury	ND(0.001) mg/kg	10 X STLC
Zinc	69 mg/kg	10 X STLC
Volume	1.48 tons	None

Note: Annual samples were collected in October.
*** STLC = Soluble Threshold Limit Concentration**

2009 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

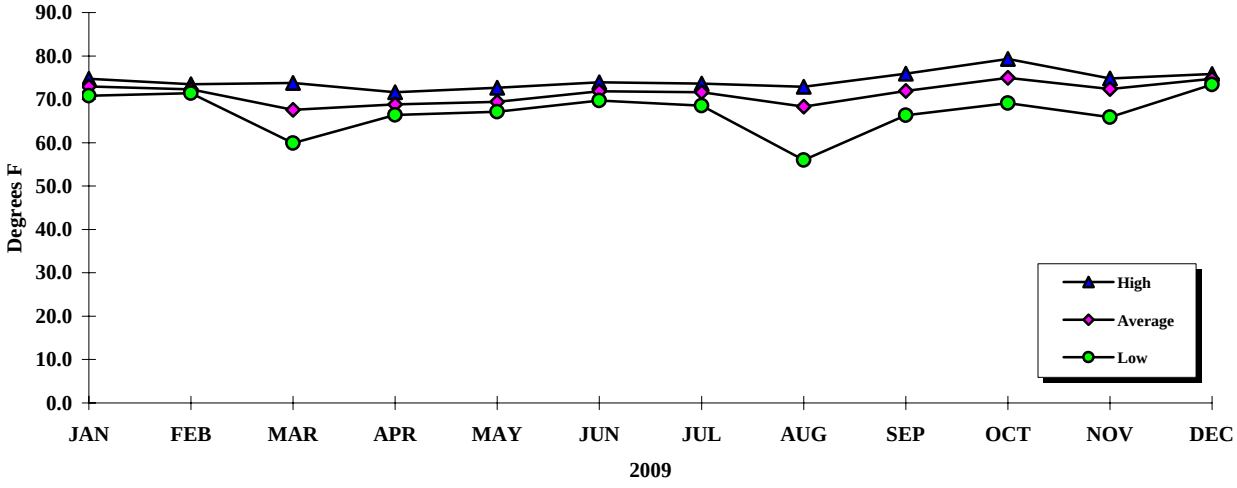
DISCHARGE 001 INFLUENT

Temperature (°F)



DISCHARGE 001 EFFLUENT

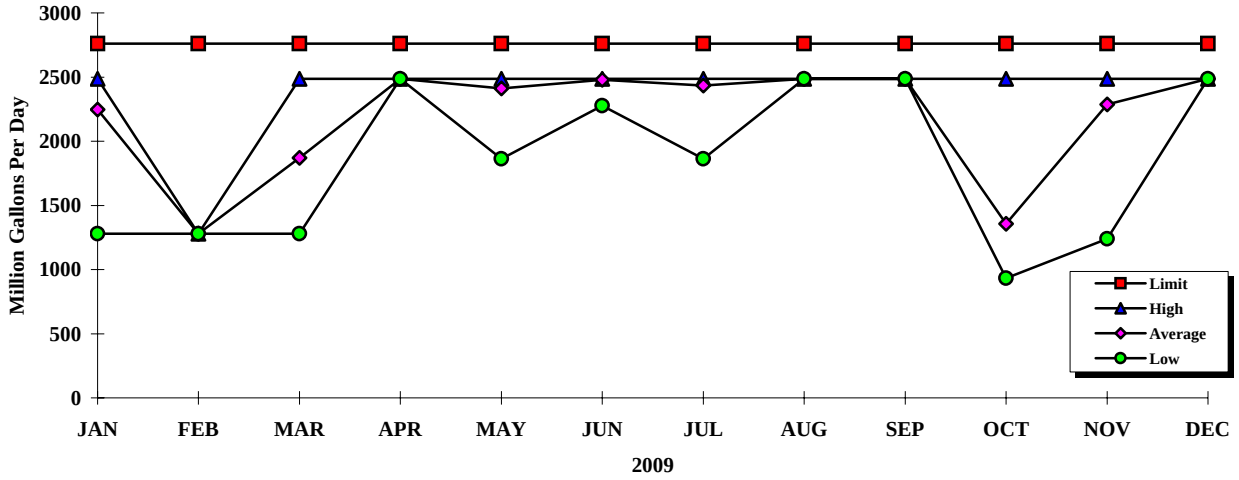
Temperature (°F)



2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

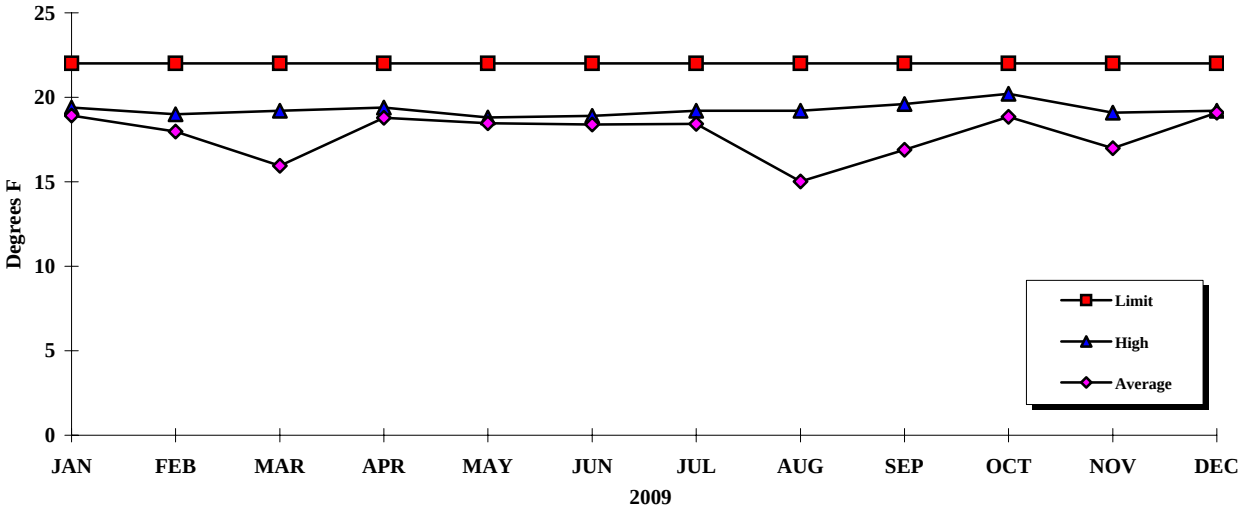
DISCHARGE 001 EFFLUENT

Flow (MGD)



DISCHARGE 001 EFFLUENT

Monthly Delta T (°F)



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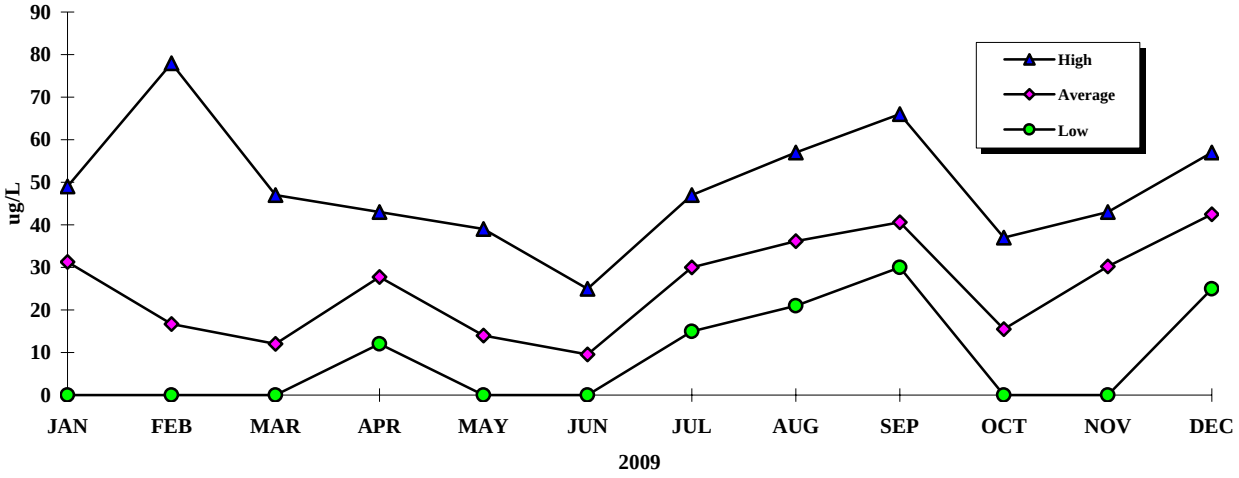
DISCHARGE 001

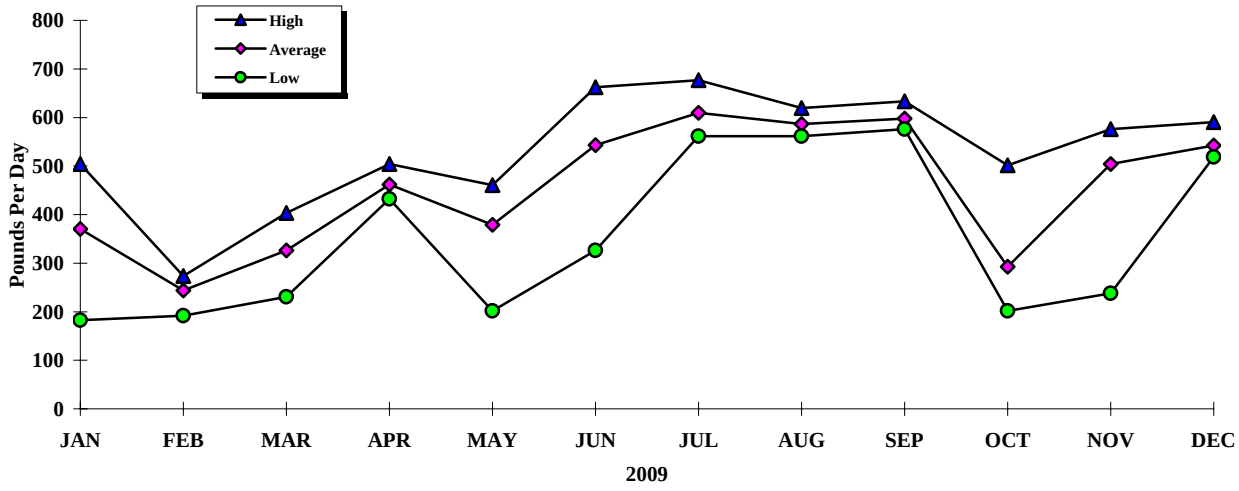
Total Chlorine Residual, ug/l



Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001

Total Chlorine Used, pounds per day



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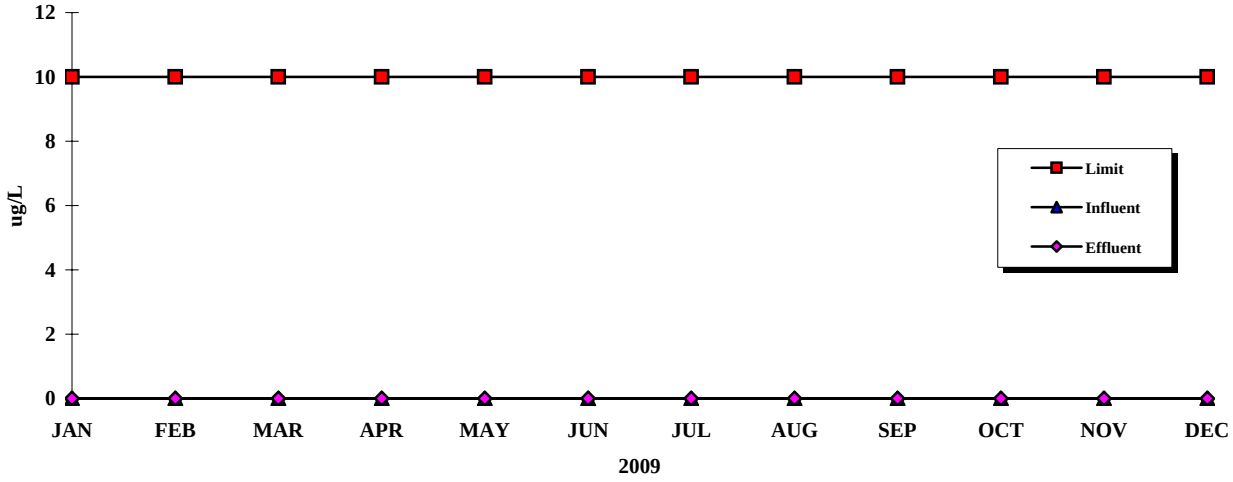
DISCHARGE 001

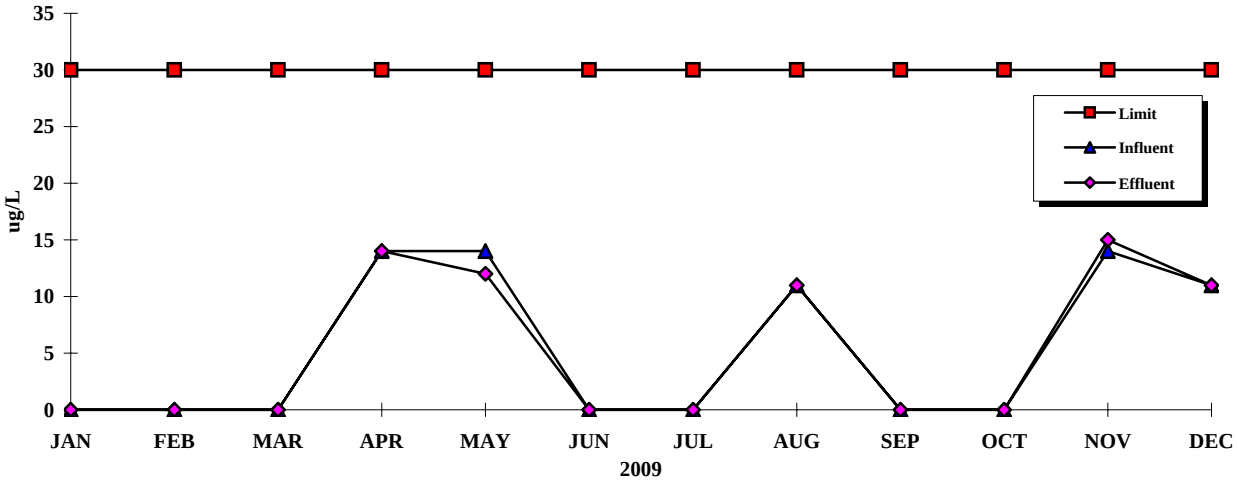
Copper (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Copper is 50 ug/l.

DISCHARGE 001

Nickel (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Nickel is 100 ug/l.

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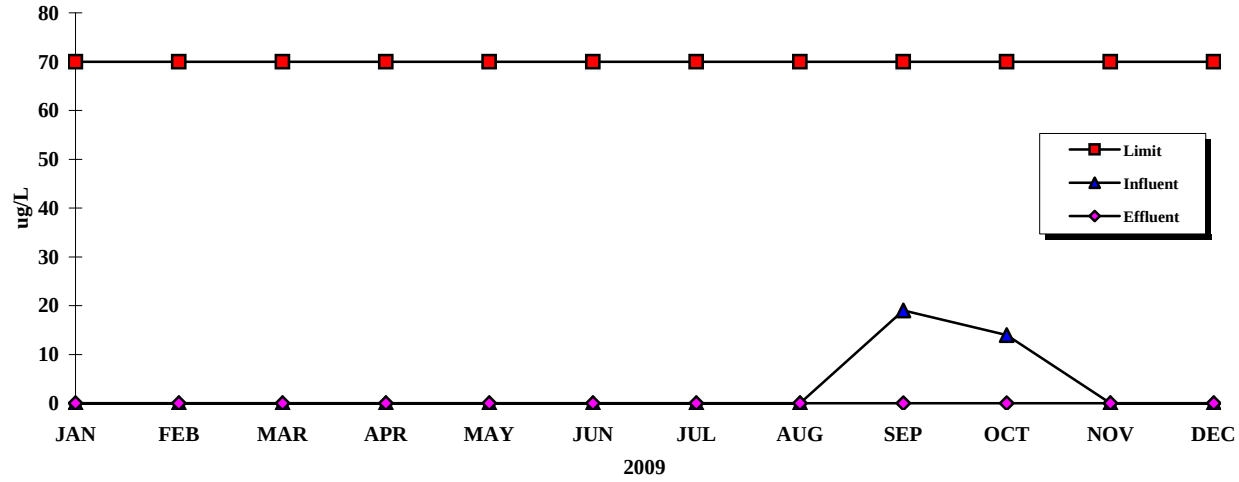
DISCHARGE 001

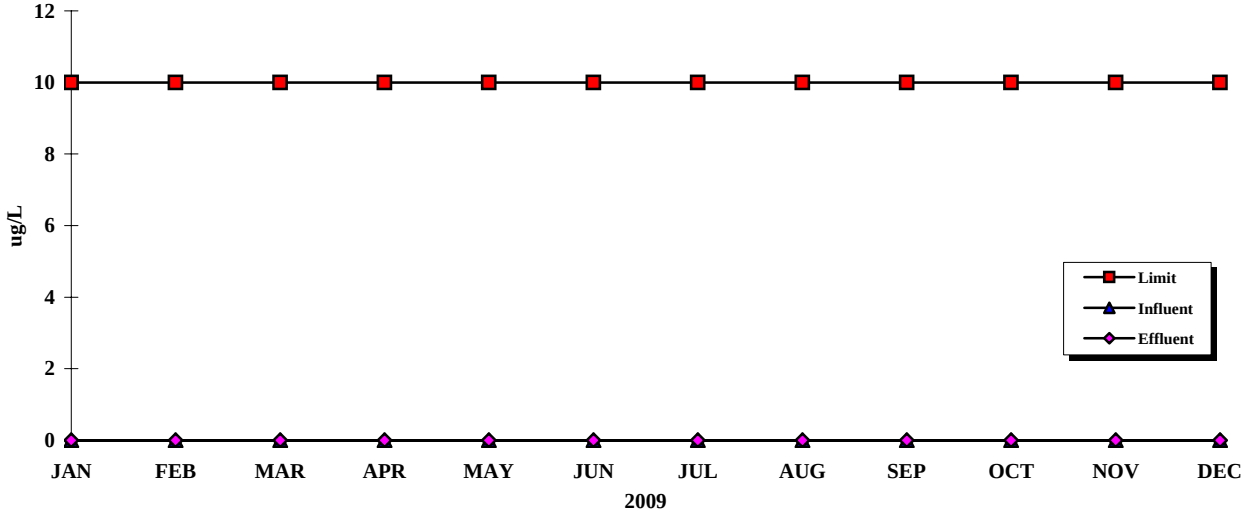
Zinc (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001

Chromium (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit is plotted on this chart. The daily maximum limit for chromium is 40 ug/l.

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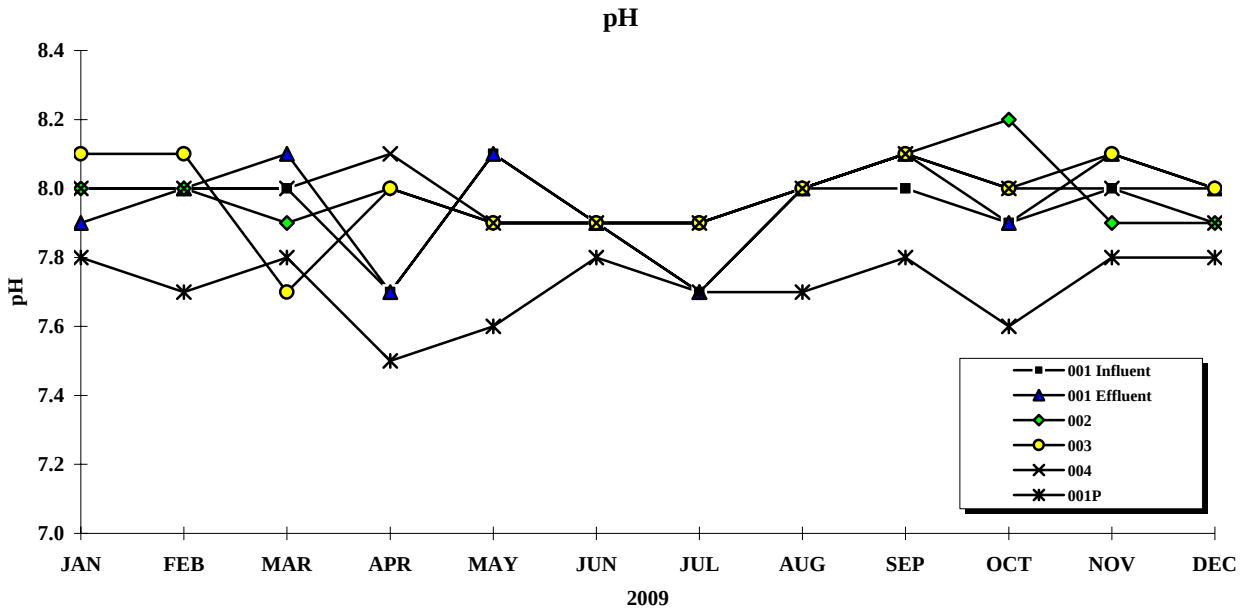
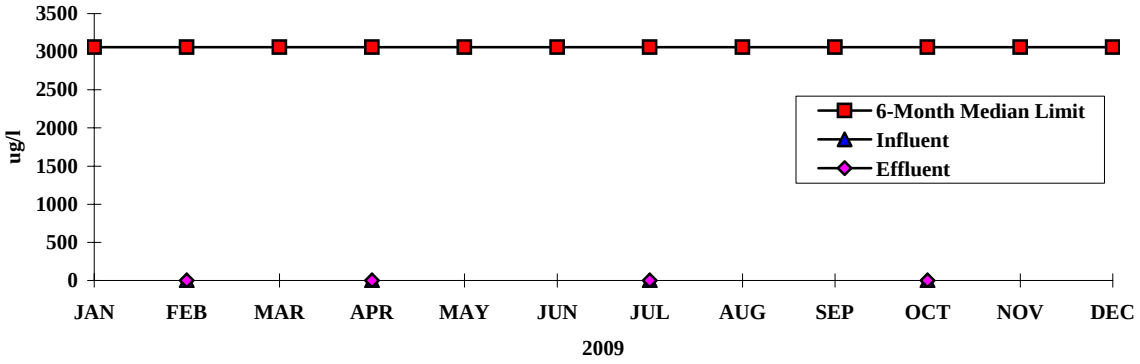


Note: Several data points on this chart overlap.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
Influent and Effluent values overlap at four points on this plot.

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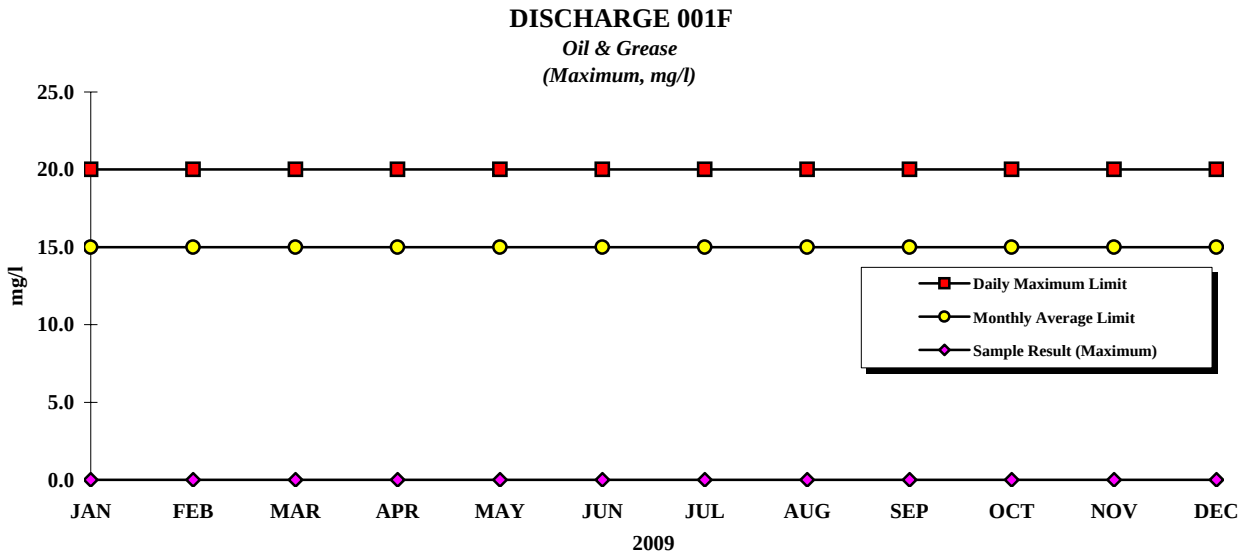
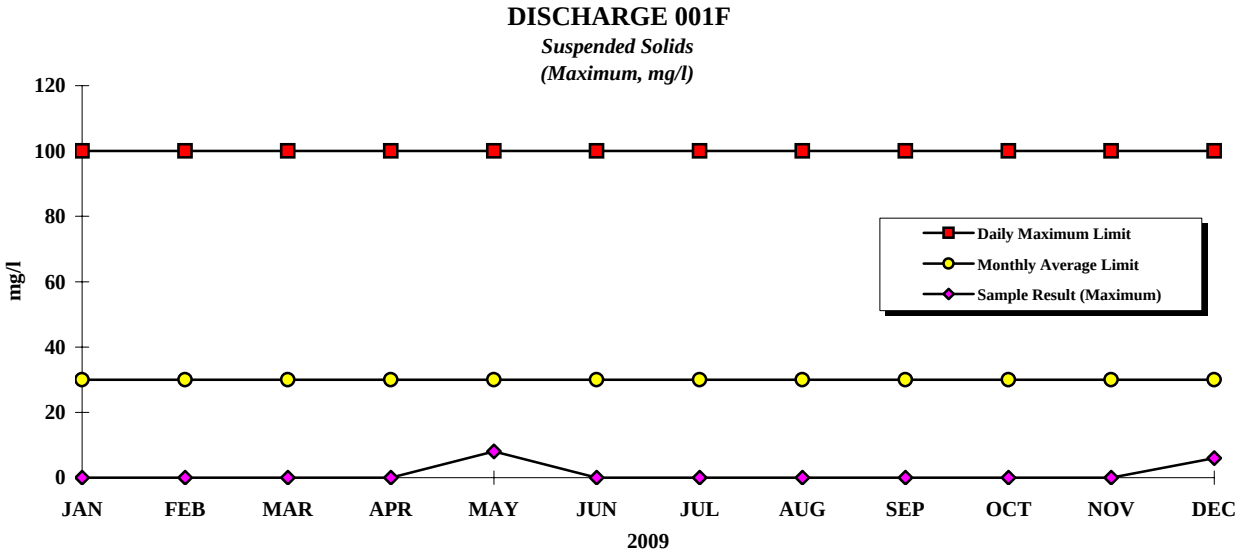


Note: Values plotted at zero were below the reporting limit.

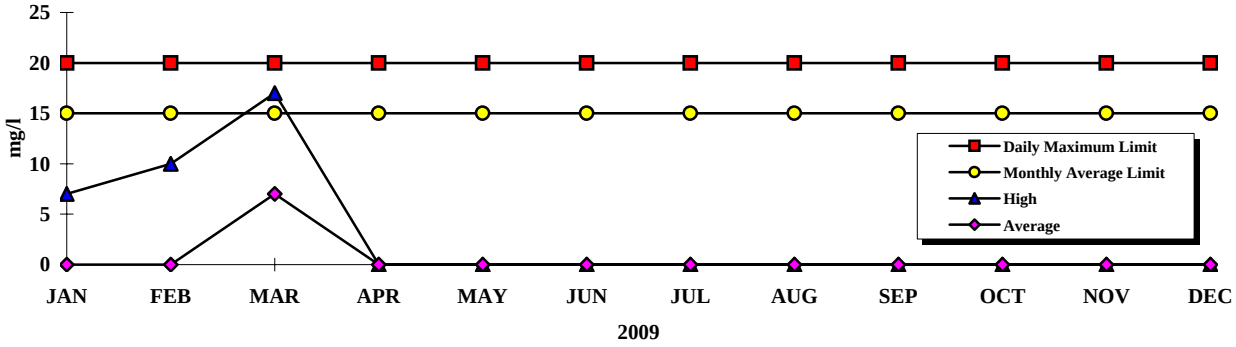


Note: Maximum values are plotted.

2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001N

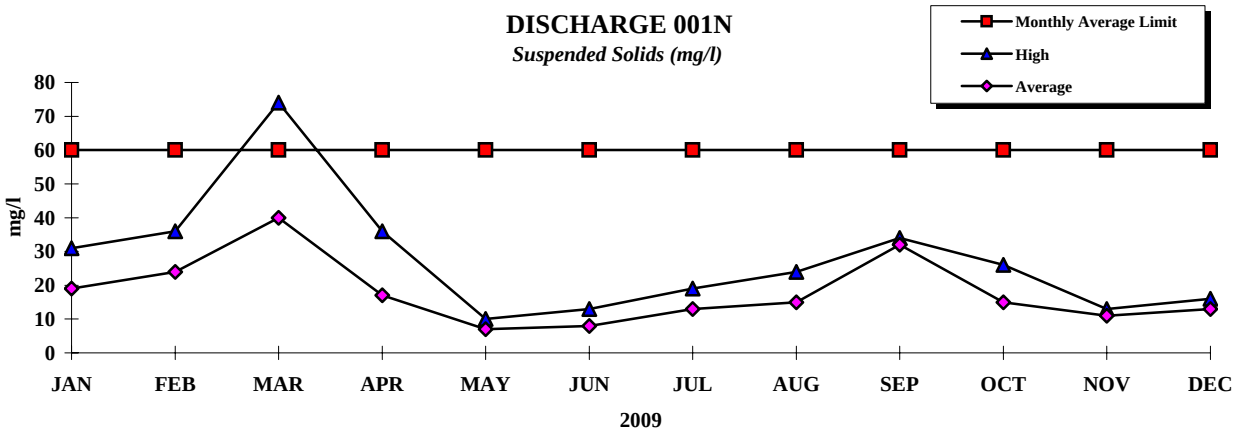
Oil & Grease(mg/l)



Note: Values plotted at zero were below the reporting limit.
High, low and average values overlap at eight points on this plot.

DISCHARGE 001N

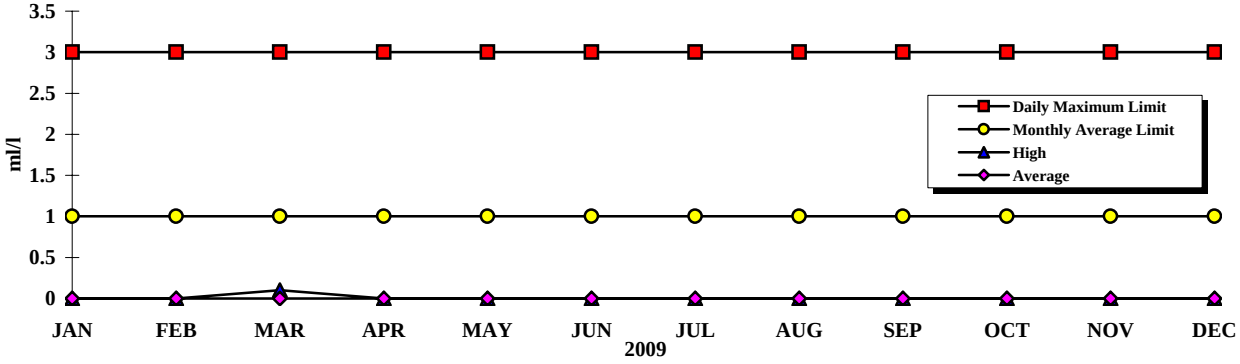
Suspended Solids (mg/l)



Note: March average value is below the Monthly Average Limit. There is no Daily Maximum limit.

DISCHARGE 001N

Settleable Solids (ml/l)



Note: Values plotted at zero were below the reporting limit.
High, average, and low values overlap at eleven points on this plot.

2009 Annual Summary Report on Discharge Monitoring
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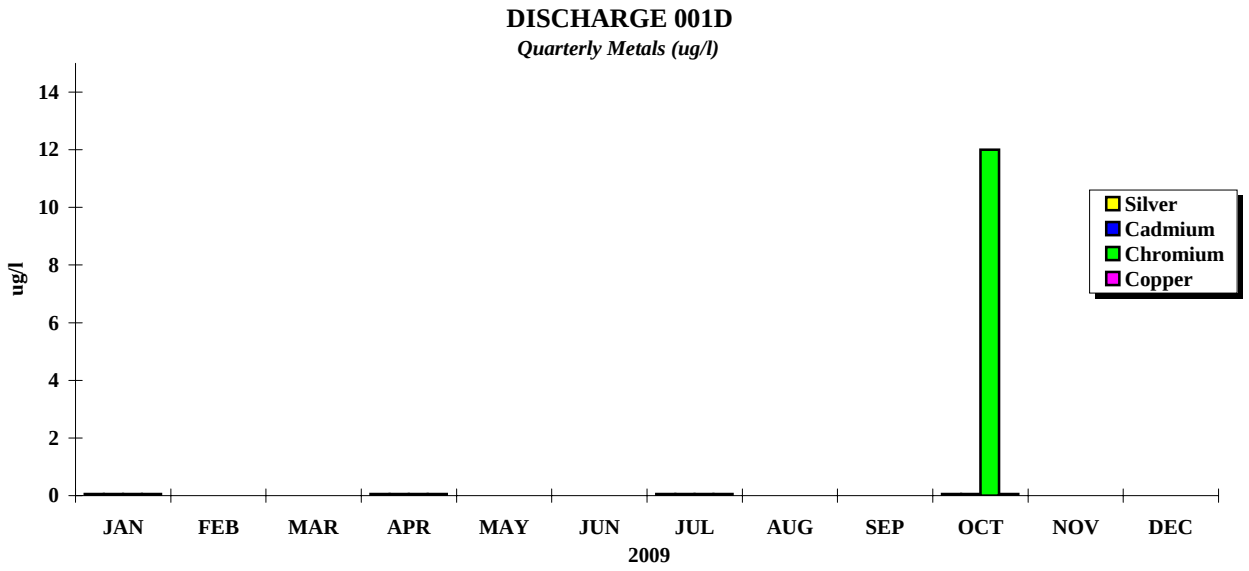
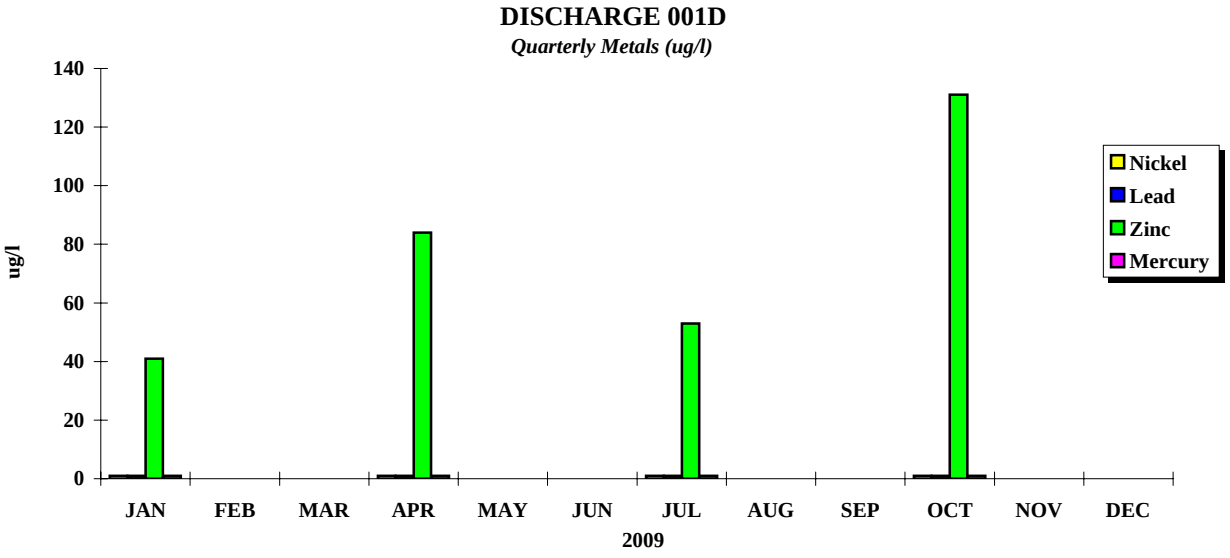
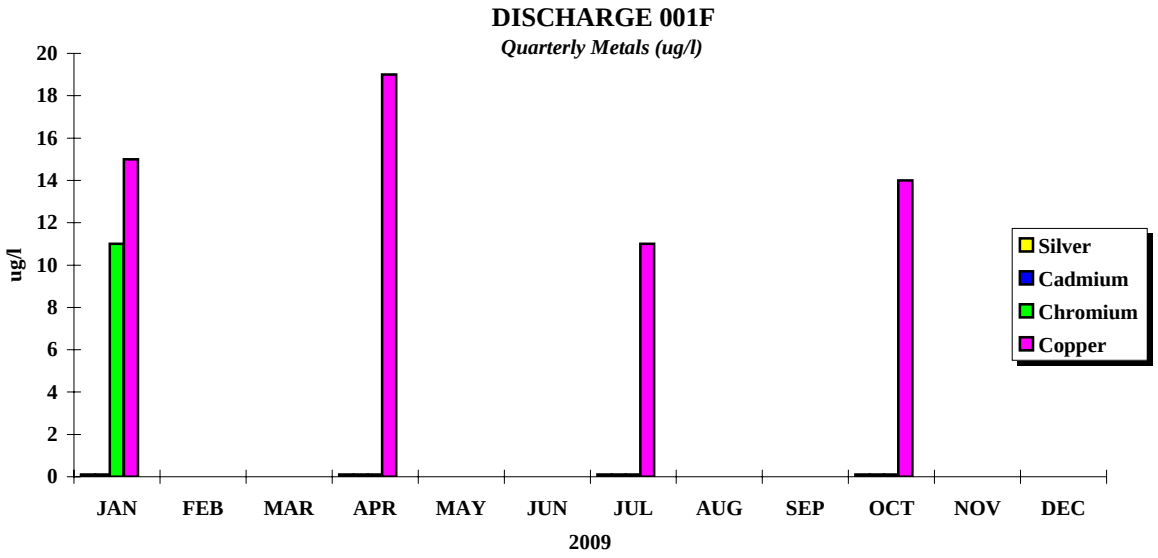


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

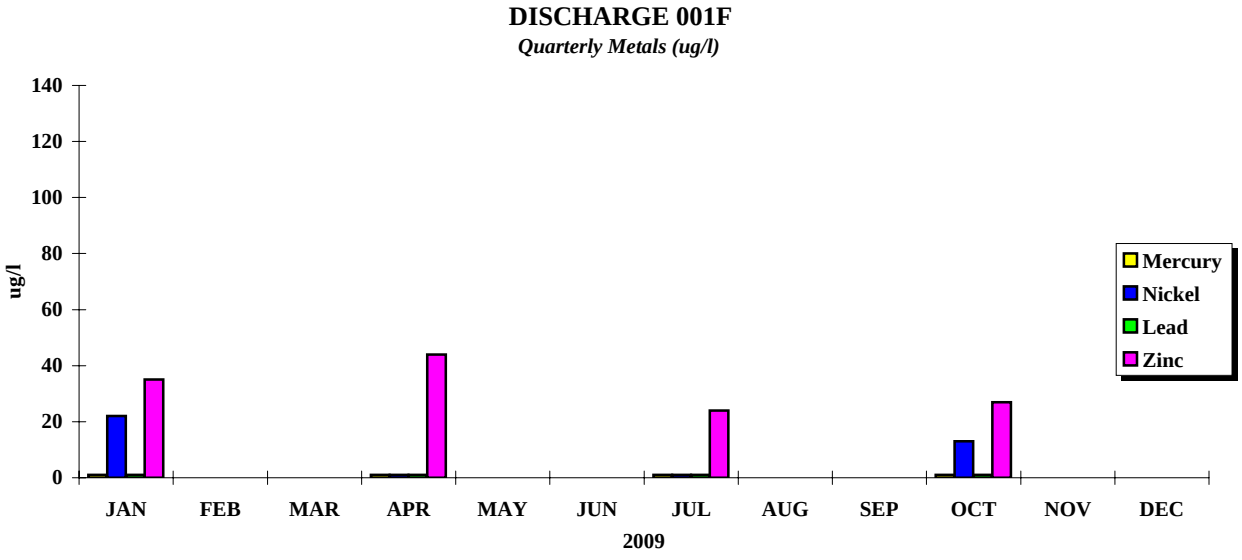


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

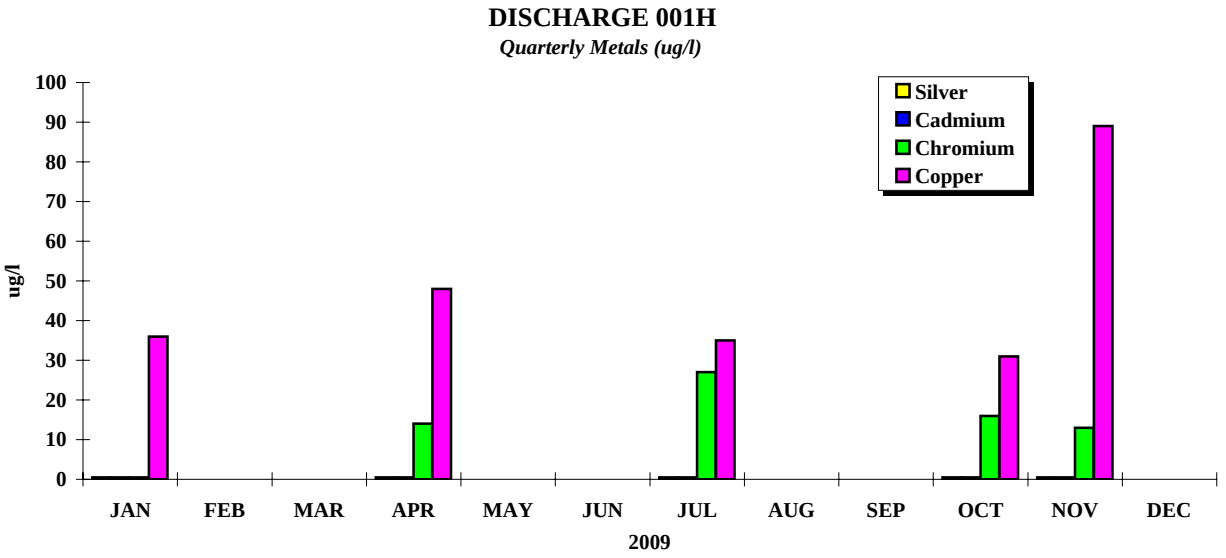


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

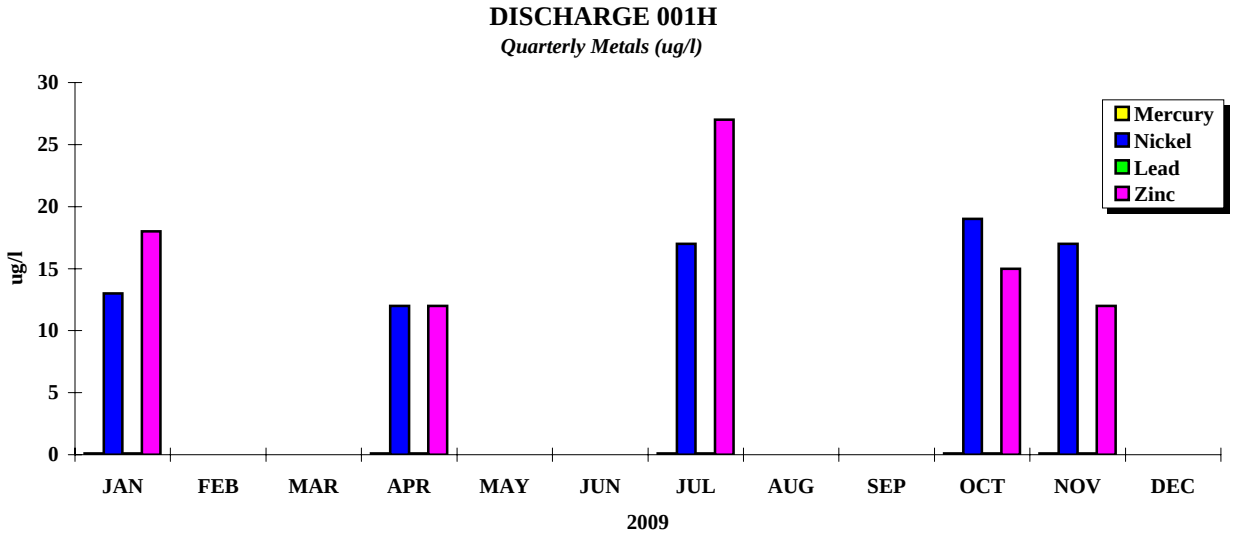


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

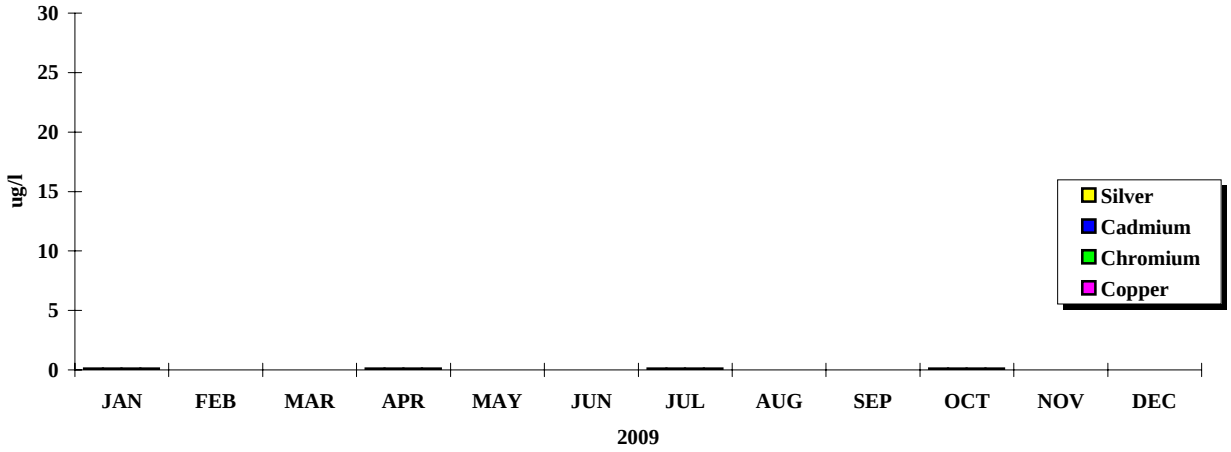


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001L

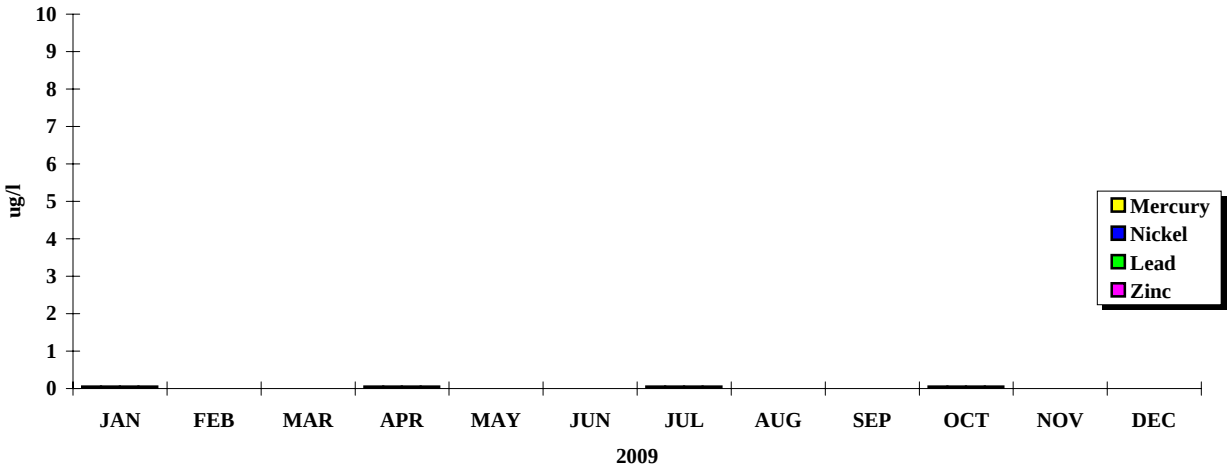
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001L

Quarterly Metals (ug/l)

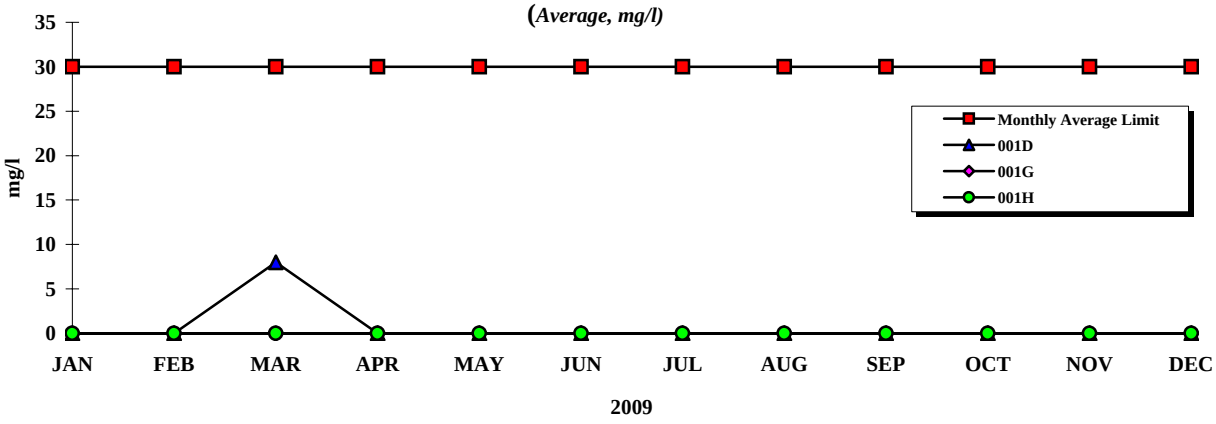


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2009 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

MONTHLY TOTAL SUSPENDED SOLIDS

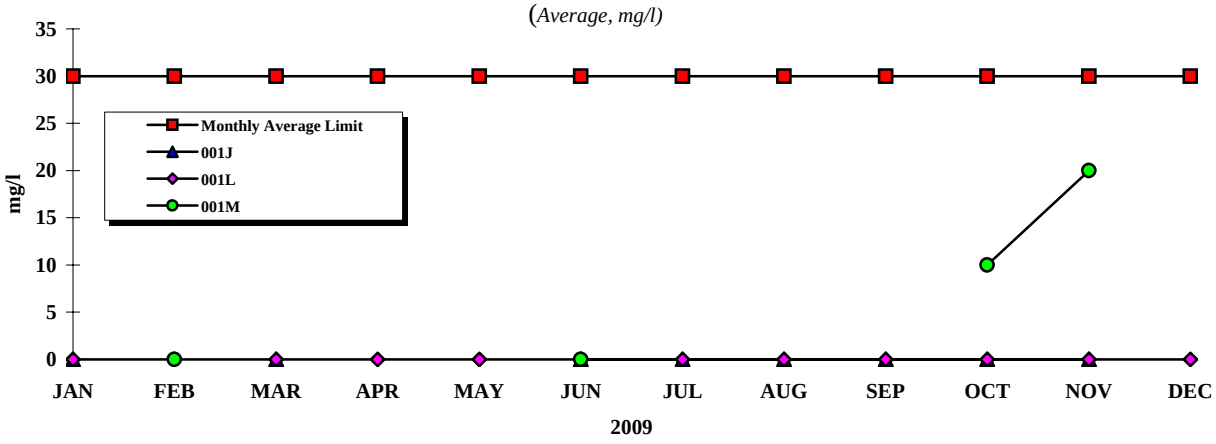
(*Average, mg/l*)



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

MONTHLY TOTAL SUSPENDED SOLIDS

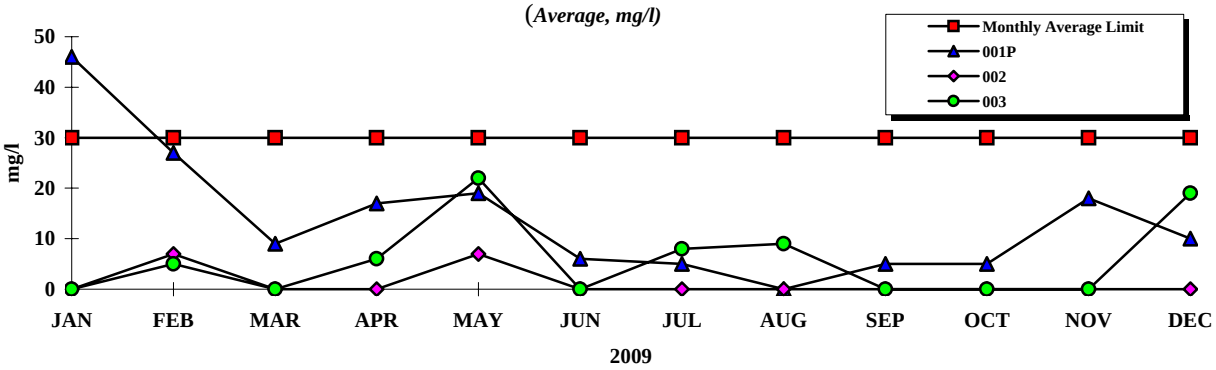
(*Average, mg/l*)



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

MONTHLY TOTAL SUSPENDED SOLIDS

(*Average, mg/l*)

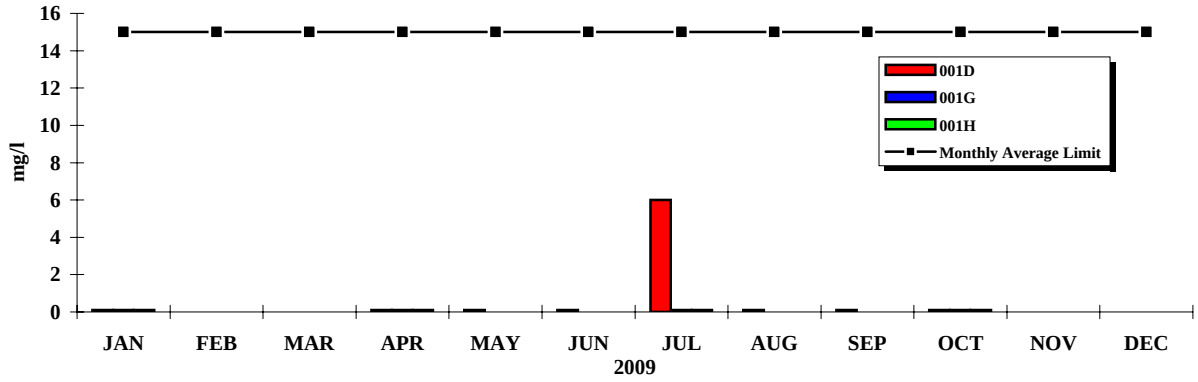


Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

2009 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

QUARTERLY OIL & GREASE

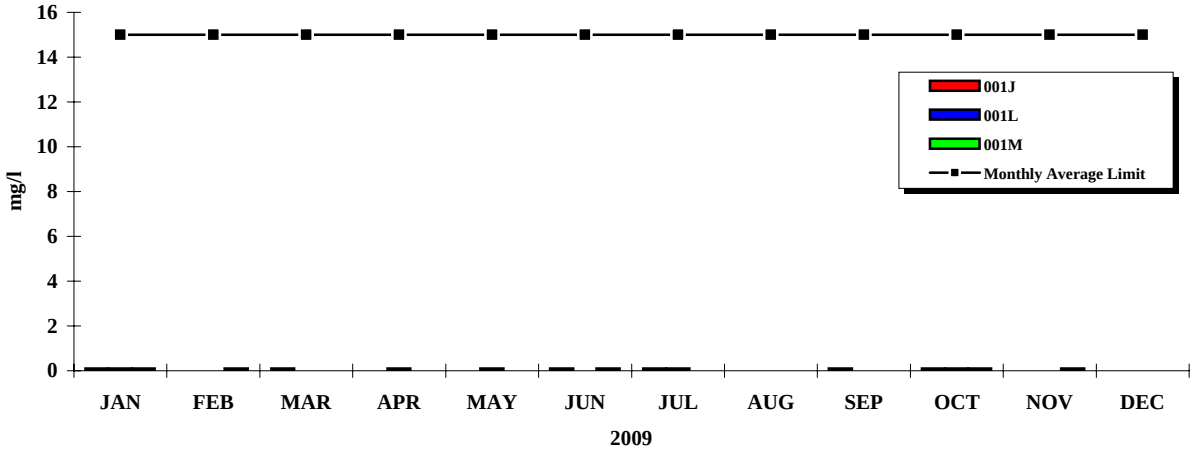
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit. Less than values are plotted at the value.

QUARTERLY OIL & GREASE

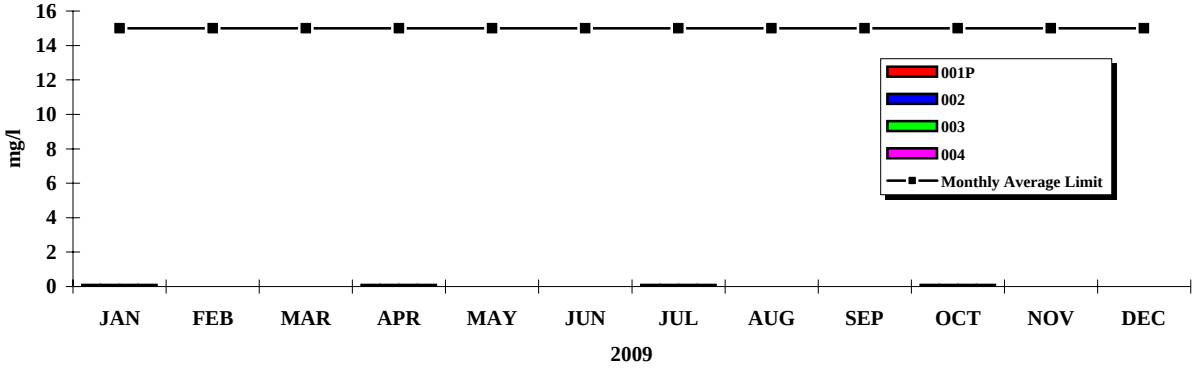
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

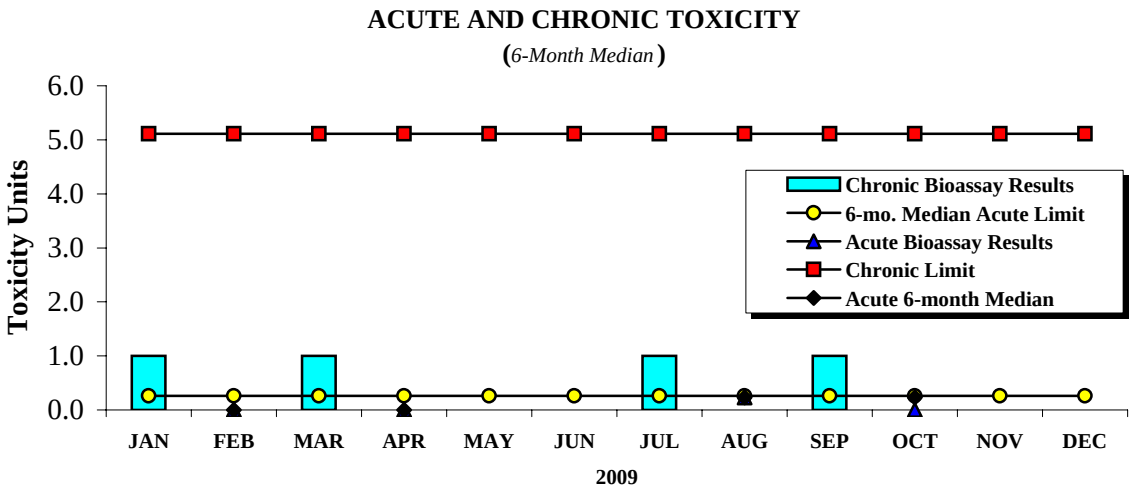
QUARTERLY OIL & GREASE

(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

2009 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant



Note: > 0 acute 6-month median value in October due to positive test result (TUa 0.23) in August .

Permit Monitoring Information

2008

Annual NPDES Discharge Self Monitoring Report (DSMR) Text, Tabular, and Graphical Data Sections

27 Pages

2008 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

OVERVIEW

A. This annual summary report follows the format used in quarterly monitoring reports. Analytical results below the respective Reporting Limit (ND or non-detect) are plotted as a "zero" value in accordance with ELAP guidance. Less-than results are typically reported to express an average of values that include non-detects and at least one positive result. These less-than results are plotted conservatively at the value. During 2008, discharges occurred from all discharge paths except 001I, 001K, 016, and 017.

B. California Ocean Plan Table B substances that were not analyzed for have not been added to the discharge stream. The substances listed in Table B in the 1990 Ocean Plan were each analyzed for and reported in the permit renewal application for Diablo Canyon Power Plant (DCPP) submitted in October 1994 and January 2001. There have been no changes in activities conducted at the plant that would have significantly affected the results previously reported in the above referenced documents.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. Monitoring Data

   a. Appendix 1 provides a list of discharge path names for ease of reference. Appendix 2 contains monitoring data in tabular form. Appendix 3 contains monitoring data in graphical form.

   b. Annual oil and grease analyses were performed in October on Stormwater/Yard Drain Discharges 005, 008, 009, 013, and 015. Results were non-detect (less than 5 mg/l) for discharges 005, 008, 009 and 015. The result for discharge 013 was 5 mg/l. No discharges that resulted in adequate sample quantities occurred from 016 and no discharge occurred from 017 during 2008.

   c. In October, Discharge 001D (Liquid Radioactive Waste Treatment System) annual grab samples for lithium, boron, and hydrazine were collected and analyzed. The results were 0.058 mg/l, 580 mg/l, and 0.005 mg/l, respectively.

2. Facility Operating and Maintenance Manual

   Pacific Gas and Electric Company (PG&E) maintains a multiple volume Plant Manual at DCPP that contains procedures used for operation and maintenance activities at the plant, including those activities that relate to wastewater handling, treatment, sampling, analysis and discharge.

   Plant procedures are prepared and reviewed by DCPP Staff and approved by DCPP Management. DCPP conducts biennial internal audits that review NPDES Plant procedures contained in the manual. Ongoing reviews of Plant procedures are conducted to assure that the manual remains valid, current, and complete for the facility.

3. Laboratories Used to Monitor Compliance

   The following laboratories were used during 2008 for monitoring compliance. They are certified under the appropriate agencies for the test/analyses they perform. As part of the on-going annual certification process, these laboratories take part in, and have passed, annual quality performance evaluation testing.

a. PG&E Chemistry Laboratory, DCPP, Avila Beach, California (Lab Certification # CA01036)

b. Aquatic Bioassay Consultants, Ventura, California (Lab Certification # CA01907)

c. Creek Environmental, San Luis Obispo, California (Lab Certification # CA00975)

d. Columbia Analytical Services, Kelso, Washington (Lab Certification # WA00035)

e. TestAmerica, Inc., Earth City, Missouri (Lab Certification # MO00054)

Results were also reported from Calscience Environmental Laboratories (CA-ELAP Lab #1230). These results were from samples taken by Liberty Composting of Bakersfield, CA of sewage treatment sludge received at their facility originating from the DCPP discharge 001N pathway. The results were provided by Calscience back to the contractor that operates DCPP's sewage treatment unit. The sample results are reported by PG&E as a courtesy, and not used to demonstrate compliance with the annual 001N pathway sludge analyses required by DCPP's NPDES Permit.

4. Review of Compliance Record and Corrective Actions

a. Circulating Water Pump Chlorination/Bromination Monitoring

The 2008 quarterly NPDES reports discuss chlorination cycles when discharge monitoring was interrupted. These are listed below with brief descriptions of the cause and corrective action. When these monitoring interruptions occurred, engineering evaluations (approved by the CCRWQCB January 13, 1994; PG&E Letter No. DCL-94-002) were performed. Detailed descriptions of these evaluations are included in the quarterly reports. Evaluations concluded that discharge chlorine limits were not exceeded during these events. An apparent exceedance occurred in February 2008 unrelated to an unmonitored condition (see description below).

Date	Chlorination Cycle Monitoring interruptions	Cause	Corrective Action
7/10/08 to 7/16/08	Unit 1 37 readings	Fouling of monitor's upper flow block.	Flow block replace and frequency of block inspection/replacement increased.
10/14/08 to 10/15/08	Unit 2 5 readings	Cracked fitting in upper flow block.	Fitting replaced.
12/18/08 to 12/19/08	Unit 1 and 2 10 readings	Open cross-tie valve between monitor inlets.	Cross-tie valve closed.

On February 23, 2008, chlorine levels at the Unit-1 discharge monitor reached 207 ppb during the 1600 injection, exceeding the 200 ppb limit in DCPP's NPDES discharge permit. The exceedance was discovered the morning of February 24, 2008. Regional Water Quality Control Board staff were notified the same day, within the 24 hour notification period. Investigation indicated that maintenance on the main seawater supply piping for the chemical injection system had taken place earlier on February 23rd. Pipe cleaning during the maintenance activity resulted in increased seawater flow within the overall system during the 1600 injection. The increased flow and associated water pressure forced out biofouling material that had accumulated and partially blocked system piping downstream of the conduit 1-1 chemical injection point. The restriction of water flow at this point had generated a build-up of treatment chemical that was suddenly released into the conduit when the blockage broke free.

Fouled system seawater supply piping had been the cause of another exceedance in August 2007 (reported in the third quarter 2007 report). The system maintenance activity on February 23, 2008 was part of the corrective action implemented in response to the August 2007 exceedance. Unfortunately, chemical treatment operations personnel were not notified that the piping was being cleaned, and the system was being put back in service with potentially enhanced seawater flow. Therefore, measures were not initiated (review chemical injection rate

settings, conduct system test injections, increase dechlorination rates, etc.) to adequately evaluate potential change in system conditions, and subsequently mitigate related operational problems. To prevent recurrence, plant procedures have been modified to include notification steps during maintenance activities that could result in enhanced seawater flow. Additionally, preventative maintenance periodic work orders have been established to remove biofouling throughout the entire system well before it can cause appreciable pipe occlusion, or contribute to flow restrictions that can result in pockets of chemical accumulation.

c. Closed Cooling Water Releases

During 2008, maintenance activities that required draining of closed cooling water systems were performed and are summarized below. PG&E received concurrence from the CCRWQCB in response to letters dated July 19, 1995 (PG&E Letter DCL-95-156), May 23, 1996 (PG&E Letter DCL-96-522), and May 19, 1997 (PG&E Letter DCL-97-533) regarding the use of glutaraldehyde and isothiazolin to control microbiological growth and corrosion in DCPP's closed cooling water systems. Any drainage from these systems is discharged at a flow-rate such that the chronic toxicity level is below the "No Observable Effect Concentration" (NOEC) at NPDES Discharge 001. The volumes of cooling water drained in 2008 from the component cooling water (CCW), intake cooling water (ICW), and service cooling water (SCW) systems are presented below. The glutaraldehyde (Glut) and isothiazoline (Iso) concentrations presented in the table below are system concentrations, not concentrations at the point of discharge to receiving water.

Date	System	Volume (gal)	Glut (mg/l)	Iso (mg/l)	Total Suspended Solids (mg/l)	Oil & Grease (mg/l)	Reason & Comments
01/17/08	Unit 2 CCW	5,300	156	---	---	---	Routine maintenance
01/24/08	Unit 2 SCW	200	92	0.33	---	---	Routine maintenance
01/28/08	Unit 2 ICW	1,050	< 50	< 0.25	11.1	3.1	Routine maintenance
01/28/08	Unit 2 SCW	11,000	90	0.33	3.1	1.6	Routine maintenance
01/29/08	Unit 1 ICW	3,308	102	7.3	15.4	3.2	Routine maintenance
02/18/08	Unit 2 SCW	8,000	0.0	0.0	< 2.0	< 1.4	Routine maintenance
03/05/08	Unit 2 SCW	20	297	242	3.4	1.4	Routine maintenance
03/13/08	Unit 2 SCW	33,200	249	< 0.25	3.4	1.4	Routine maintenance
04/12/08	Unit 2 SCW	15	106	< 0.25	---	---	Routine maintenance
05/01/08	Unit 1 CCW	181,000	129	0	5.9	< 1.4	Routine maintenance
05/14/08	Unit 1 ICW	200	132	6.0	---	---	Routine maintenance
06/05/08	Unit 1 SCW	34,000	144	7.9	< 2.0	< 1.4	Routine maintenance
06/17/08	Unit 1 ICW	3,318	< 50	4.6	---	---	Routine maintenance
06/30/08	Unit 2 SCW	15	90	4.3	---	---	Routine maintenance
07/03/08	Unit 2 ICW	3,304	153	2.1	---	---	Routine maintenance
07/09/08	Unit 2 SCW	33,000	57	4.1	< 0.2	< 1.4	Routine maintenance
07/19/08	Unit 2 CCW	192,500	157	0.0	< 0.2	< 1.4	Routine maintenance
08/25/08	Unit 1 SCW	15	88	0.75	---	---	Routine maintenance
09/03/08	Unit 1 SCW	15	85	2.4	---	---	Routine maintenance
10/09/08	Unit 2 SCW	10	134	2.8	----	----	Routine maintenance
12/11/08	Unit 1 SCW	33,250	151	5.0	<2.0	<1.4	Routine maintenance

d. On January 29, 2008, a level switch malfunction caused the turbine building sump to overflow to discharge, bypassing the oily-water-separator. The turbine building watch discovered the sump overflowing to the clean side, and observed pump level switches in normal automatic positions. Both sump pumps were immediately manually started, terminating flow overboard. However, turbine building sump water that had been directly released bypassed the oily water separator described for this discharge pathway (001F). DCPP conservatively estimates that a maximum of 25 gpm was released for approximately 18.5 hours resulting in a bypass of up to 27,750 gallons. Samples of the water remaining in the turbine building sump indicated that values for oil and grease (19.4 mg/l) and total suspended solids (17 mg/l) were below daily maximum limits for discharge point 001F. Therefore, this event was determined to be a bypass and not an exceedance. Regional Water Quality Control Board staff were notified within 24 hours of the

bypass. Corrective maintenance was performed on the pump switches and satisfactory operation was verified.

e. Shortly after midnight on August 17, 2008, one of three operating Unit 2 main bank electrical transformers failed catastrophically causing a fire. The fire was put out by DCPP emergency responders using water and a protein-based biodegradable, water-soluble, firefighting foam. Petroleum based electrical insulation oil released from the transformer during the event (estimated at < 100-gallons) was contained within adjacent paved areas, and a large volume oil containment and separation sump installed in the transformer area drainage path. High volumes of deluge water and soluble fire fighting foam additive entered the oil separation sump during the event. Water discharged from the sump flowed to the catch basin of discharge point 004. Foam was subsequently observed in the 004 discharge and in the adjacent power plant intake cove. No obvious petroleum oil sheen was observed at any location. Three oil absorbent booms were deployed, one at the entry to the 004 pathway catch basin, and two at the 004 discharge outlet, to capture any residual oil if transported by water/foam originating from the transformer area. There was a mild kerosene type smell in the foam at the inlet of the drainage catch basin (prior to catch basin outfall to the 004 discharge), but no petroleum type sheen was observed within the catch basin. However, some soot-like material was also observed at this same location. Other than the foam, the observation of soot-like material and the mild odor were the only notable concerns. Residual fire fighting foam dissipated rapidly once the sun came up, and no oil sheen was observed in the intake cove after all foam was gone.

   Regional Board Staff were notified of the event by phone message early Sunday morning (August 17th) after observations of the catch basin, intake cove, and boom installation. The deployed booms were subsequently examined on Monday August 18th. No petroleum oil was observed in the absorbent material. Additionally, no oil sheen was observed within the drainage catch basin on the 18th, or at any location in the intake cove. Follow-up investigation and inspections concluded that during the initial transformer event and subsequent emergency response, the Unit-2 main bank transformer area oil containment and separation sump performed within design function to capture oil and pass water and entrained water soluble materials.

f. On October 6, 2008, a break in the hydraulic fluid line that controls the paddle wheel on the kelp harvester failed and released a small amount of food grade mineral oil into the Intake Cove. Operators noticed the leak and immediately returned to the boat dock and shut down the harvester. Hydraulic fluid was observed on the surface of the intake cove as a clear/colorless strip about one foot wide and 100 feet long. The released material did not generate a petroleum oil type multi-colored (rainbow) sheen on the water surface. An absorbent boom was placed around the kelp harvester and absorbent pads were used to clean up the hydraulic fluid. The kelp harvester was removed from the water for repair the same day. It was estimated that approximately one cup reached the water. Central Coast Regional Water Quality Control Board (CCRWQCB) staff were notified the same day and they requested that a brief description be included in the 4th quarter report.

g. A Total Suspended Solids (TSS) minor exceedance for discharge 001P was discovered on December 15, 2008. The monthly sample for the Seawater Reverse Osmosis (SRO) blowdown (001P) was taken on 12/11/2008 and analyzed on 12/15/2008. The result was 106 mg/l, slightly above the NPDES daily maximum limit of 100 mg/l. Visual inspection of TSS filter residue at the SRO showed much more sand than is typical. It is believed that the sample was taken during a backwash cycle and sock-filters were not operable. Backwash occurs during a very small fraction of the time the SRO is operating. CCRWQCB staff were notified on December 15, the day of discovery, and they requested that additional monitoring be initiated, and a brief description of the event be included in the 4th quarter report. Results of five additional samples were all ND(5). Therefore, the December 2008 monthly average (27 mg/l) was below the monthly average limit (30 mg/l). Evaluation has continued, and temporary engineering controls have been implemented. Details will be provided in the first quarter 2009 monitoring report.

h. On December 17, 2008, a bypass of the oily water separator occurred for discharge pathway 001F. The turbine building sump was discovered to have increasing water level with both pumps running to the WHAT facility. Operators were unable to discover where the water was coming from in time to prevent water from overflowing to the outfall, bypassing the oily water separator. It was estimated that the overflow continued for no more than five minutes at a rate of 50 gallons per minute for a total of 250 gallons. It was later discovered that the excessive inflow was water being transferred from a sump in the Unit-1 Turbine Building Reverse Osmosis (RO) Buttress. The water source was rainwater from the Unit-1 transformer yard area that had entered a piping trench terminating in the Buttress Sump. Water samples were taken from the turbine building sump immediately after the discharge was terminated. Results were as follows:

Oil and Grease - 4.2 mg/l
Total Suspended Solids (TSS) - 45.0 mg/l and 41.5 mg/l (2 samples)

Oil and grease sample results were below monthly average and instantaneous maximum limits. The TSS results from this event were above the monthly average limit of 30 mg/l, but below the instantaneous maximum of 100 mg/l. These two values were averaged with the routine monthly measurements from discharge 001F for an actual monthly average of 9.0 mg/l, which is below the NPDES monthly average limit of 30 mg/l. Therefore, this event resulted in a bypass, not an exceedance. Operational procedures are being modified to ensure the turbine building sump can handle incoming flow when other sumps are drained. CCRWQCB staff were notified on December 17th, the day of the event.

B. Monitoring of Receiving Water

1. Ecological Studies at Diablo Canyon

Marine ecological monitoring was continued during 2008 under the Receiving Water Monitoring Program (RWMP) as requested in a letter from the Central Coast Regional Water Quality Control Board (CCRWQCB) dated December 9, 1998, and as detailed in a letter from PG&E dated January 8, 1999 (DCL-99-503). This program includes tasks from the Ecological Monitoring Program (EMP) with additional stations and increased sampling frequencies. This program replaces the EMP and the Thermal Effects Monitoring Program (TEMP). Several one-year-only tasks outlined in the above letters were completed in 1999 and were not requested to be performed in 2008. Results of 2007 RWMP data were submitted to the CCRWQCB on April 25, 2008. A table in Appendix 4 summarizes requirements and completed tasks for 2008.

2. In Situ Bioassay

Results of the Mussel Watch Program are reported to the CCRWQCB directly by the California Department of Fish and Game in the agency's periodic report for this program.

C. Sodium Bromide Treatment Program

DCPP continued its integrated sodium bromide and "foul release coating" strategy to control macrofouling in the Circulating Water System (CWS). The treatment program consists of six 20-minute injections (at four hour intervals) of a blend of generic sodium bromide and sodium hypochlorite into DCPP's seawater intake conduits. Each injection attempts to achieve a target concentration of 200 parts per billion (ppb) Total Residual Oxidant (TRO) at the inlet waterbox of the main condensers. Discharge TRO, measured at the plant outfall, remained below NPDES limitations, except for one reading in February (reference section 4.a). Typically, discharge values were between 20 ppb to 50 ppb. In conjunction with the chemical treatment, untreated portions of the cooling water system were previously painted with a non-toxic "foul release coating" to reduce or prevent attachment of fouling organisms.

Both conduits of Unit-1 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day throughout 2008 with brief interruptions for maintenance activities in January, February, May, June, July, August, and a few times in October.

Both conduits of Unit-2 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day throughout January 2008 with a brief interruption for maintenance activities in mid January. Unit-2 injections were shut down at the beginning of February for the 2R14 refueling outage. Unit-2 injections remained off until early April 2008, when simultaneous injections were restarted. Simultaneous treatment of Unit-2 intake conduits continued through the remainder of 2008 with brief interruptions in May, June, August (transformer failure described in Section 4.e.) and October for maintenance activities.

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DISCHARGE 001

	TEMPERATURE (DEG F)								FLOW (MGD)		
	INFLUENT			EFFLUENT			DELTA T				
Month	high	low	avg	high	low	avg	high	avg	high	low	avg
JAN	54.5	51.9	53.4	74.2	71.3	72.5	20.0	19.1	2486	2486	2486
FEB	53.8	51.6	52.8	73.0	67.3	70.9	19.2	18.2	2486	1239	1363
MAR	53.6	48.8	50.6	71.6	66.7	68.8	18.9	18.2	1239	1239	1239
APR	50.2	47.0	48.6	67.9	59.8	65.1	18.9	16.5	2486	1239	2244
MAY	52.2	47.7	50.0	71.0	66.5	68.7	19.4	18.8	2486	1874	2400
JUN	54.0	48.6	51.3	72.6	67.2	70.0	18.9	18.1	2486	2486	2486
JUL	56.7	51.5	54.1	75.4	70.2	72.8	18.9	18.7	2486	2486	2486
AUG	57.8	54.0	55.7	75.6	56.2	69.7	19.0	14.0	2486	1862	2442
SEP	58.0	54.4	56.4	76.7	65.5	73.5	19.2	17.1	2486	2486	2486
OCT	58.0	52.8	55.1	76.8	65.1	73.1	19.2	17.9	2486	1239	2431
NOV	60.6	53.5	56.7	79.5	72.4	75.8	19.4	19.0	2486	2486	2486
DEC	58.2	53.1	55.3	77.4	72.4	74.5	19.4	19.3	2486	2486	2486
limit:		-			-		22		2760		

The Influent and Effluent "high" and "low" temperture values correspond to the highest and lowest daily average value for that month. The Influent high and low temperature does not necessarily correspond to the same day as the Effluent high and low temperature for that month. The "avg" temperature for Influent and Effluent is the average for the entire month. The Monthly Delta T "high" is the highest Delta T for a day of the month based on daily average Influent and Effluent temperature values. The "Avg" temperature is calculated from Influent and Effluent monthly avg values.

DISCHARGE 001

	TOTAL RESIDUAL CHLORINE (daily max. ug/l)			TOTAL CHLORINE USED (lbs/day)		
Month	high	low	avg	high	low	avg
JAN	54	28	43	490	370	435
FEB	207	<20	41	346	156	227
MAR	52	<20	<20	230	163	197
APR	65	21	34	403	194	336
MAY	41	<10	15	461	202	360
JUN	30	<10	21	547	336	475
JUL	43	<10	21	706	526	652
AUG	39	<10	19	706	408	629
SEP	63	<10	28	677	574	629
OCT	60	<10	32	619	204	498
NOV	36	12	27	518	496	518
DEC	52	25	35	547	346	484

Note that the residual chlorine limits in Permit CA0003751, Order 90-09, is an instantaneous max of 200 ug/l, and includes a time-based limit (per the Ocean Plan) which depends on the length of the respective chlorination cycle.

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DISCHARGE 001

METALS (monthly avg. ug/l)

	CHROMIUM		COPPER		NICKEL		*ZINC	
Month	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
FEB	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
APR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAY	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
JUN	ND(10)	ND(10)	ND(10)	ND(10)	13	11	ND(10)	ND(10)
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
AUG	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
SEP	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
OCT	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
NOV	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
DEC	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
6-month median limit:		10	-	10	-	30	-	70

DISCHARGE 001
VARIOUS ANNUAL ANALYSES
(monthly avg. ug/l)

Parameter	Influent	Effluent	6-Mo. Med. Effluent Limit
Arsenic	1.2	1.2	30
Cadmium	0.027	0.038	10
Cyanide	ND(10)	ND(10)	30
Lead	0.025	0.031	10
Mercury	0.2	0.2	0.2
Silver	0.025	0.025	2.9
Titanium	-	2.5	none
*Phenolic Compounds (non-chlorinated)	ND(13.27)	ND(15.12)	150
**Phenolic Cmpds (chlorinated)	ND(3.92)	ND(3.75)	10
***PCB's	ND(1.59)	ND(1.59)	none

*Reporting limits shown are the sum of individual Reporting Limits for 7 target compounds.
**Reporting limits shown are the sum of individual Reporting Limits for 6 target compounds.
***Reporting limits shown are the sum of individual Reporting Limits for 7 target compounds.

DISCHARGE 001
AMMONIA (as N) (ug/l)

Month	Influent	Effluent
JAN	ND(200)	ND(200)
FEB		
MAR		
APR	ND(200)	ND(200)
MAY		
JUN		
JUL	ND(200)	ND(200)
AUG		
SEP		
OCT	ND(200)	ND(200)
NOV		
DEC		
6-month median limit:		3060

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MONTHLY pH (averages)

Discharge:	001		002	003	004	001P
Month	Influent	Effluent				
JAN	7.9	7.9	8.0	8.0	7.9	7.6
FEB	7.9	7.9	8.0	7.9	7.9	7.7
MAR	7.9	7.9	7.9	8.0	8.0	7.7
APR	7.8	7.8	7.9	7.9	7.9	7.7
MAY	7.7	7.8	7.8	7.7	7.7	7.5
JUN	7.6	7.7	7.8	7.7	7.7	7.6
JUL	7.9	7.9	7.8	7.8	7.8	7.7
AUG	8.0	8.0	7.9	7.9	7.9	7.6
SEP	8.0	7.9	7.8	7.7	7.7	7.7
OCT	7.9	7.9	8.0	8.1	8.0	7.7
NOV	7.9	7.9	7.9	7.8	7.7	7.6
DEC	7.9	7.9	8.0	8.0	8.0	7.8

DISCHARGE 001F

	GREASE & OIL (mg/l)		SUSPENDED SOLIDS (mg/l)	
Month	high	avg	high	avg
JAN	19	10	17	16
FEB	ND(5)	ND(5)	7	7
MAR	ND(5)	ND(5)	16	12
APR	ND(5)	ND(5)	16	16
MAY	ND(5)	ND(5)	14	13
JUN	ND(5)	ND(5)	14	14
JUL	ND(5)	ND(5)	18	18
AUG	ND(5)	ND(5)	11	10
SEP	ND(5)	ND(5)	6	6
OCT	ND(5)	ND(5)	5	5
NOV	ND(5)	ND(5)	6	6
DEC	ND(5)	ND(5)	45	9
limit:	20	15	100	30

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average Limits.

DISCHARGE 001N

(Monthly Summary of Weekly Data)

	GREASE & OIL (mg/l)			SUSPENDED SOLIDS (mg/l)			SETTLEABLE SOLIDS (ml/l)		
Month	high	low	avg	high	low	avg	high	low	avg
JAN	10	ND(5)	<5	50	15	29	ND(0.1)	ND(0.1)	ND(0.1)
FEB	8	ND(5)	<5	60	25	40	ND(0.1)	ND(0.1)	ND(0.1)
MAR	ND(5)	ND(5)	ND(5)	34	11	21	0.3	ND(0.1)	<0.1
APR	7	ND(5)	<5	37	10	22	ND(0.1)	ND(0.1)	ND(0.1)
MAY	8	ND(5)	<5	12	7	10	ND(0.1)	ND(0.1)	ND(0.1)
JUN	8	ND(5)	<5	32	ND(5)	14	ND(0.1)	ND(0.1)	ND(0.1)
JUL	ND(5)	ND(5)	ND(5)	23	7	16	ND(0.1)	ND(0.1)	ND(0.1)
AUG	7	ND(5)	<5	36	14	27	ND(0.1)	ND(0.1)	ND(0.1)
SEP	ND(5)	ND(5)	ND(5)	42	ND(5)	20	ND(0.1)	ND(0.1)	ND(0.1)
OCT	ND(5)	ND(5)	ND(5)	20	14	16	ND(0.1)	ND(0.1)	ND(0.1)
NOV	ND(5)	ND(5)	ND(5)	27	16	21	ND(0.1)	ND(0.1)	ND(0.1)
DEC	ND(5)	ND(5)	ND(5)	35	17	26	0.2	ND(0.1)	<0.1
limit:	20	-	15	-	-	60	3.0	-	1.0

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Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average limits.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	20	27	ND(10)	ND(10)	ND(10)	ND(10)	25	ND(10)	ND(10)	ND(10)
FEB																
MAR																
APR	ND(10)	ND(10)	ND(10)	10	ND(10)	ND(10)	21	69	ND(10)	ND(10)	ND(10)	<10	ND(10)	ND(10)	ND(10)	38
MAY																
JUN																
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	40	67	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
AUG																
SEP																
OCT	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	19	62	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	23	ND(10)
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn
JAN	ND(0.20)	ND(10)	ND(10)	46	ND(0.20)	18	50	<10	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	39	49
FEB																
MAR																
APR	ND(0.20)	ND(10)	ND(10)	155	<0.20	16	ND(10)	ND(10)	ND(0.20)	<10	ND(10)	ND(10)	ND(0.20)	20	ND(10)	28
MAY																
JUN																
JUL	ND(0.20)	ND(10)	ND(10)	58	ND(0.20)	24	ND(10)	<10	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	ND(10)
AUG																
SEP																
OCT	ND(0.20)	ND(10)	ND(10)	174	<0.20	22	ND(10)	12	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	33	ND(10)	42
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

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MONTHLY TOTAL SUSPENDED SOLIDS
Averages (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003
JAN	<5	ND(5)	ND(5)				ND(5)		ND(5)	<5	5
FEB	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	<5	<5
MAR	6	ND(5)	ND(5)				ND(5)		ND(5)	5	5
APR	<5	ND(5)	ND(5)		ND(5)		ND(5)	5	ND(5)	ND(5)	ND(5)
MAY	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)
JUN	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	<5
JUL	<5	ND(5)	ND(5)				ND(5)		6	ND(5)	ND(5)
AUG	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	7	9
SEP	<5	ND(5)	6		ND(5)		ND(5)		ND(5)	ND(5)	ND(5)
OCT	<5	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
NOV	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	5
DEC	<5	ND(5)	<5				ND(5)		27	ND(5)	ND(5)
Limit:	30	30	30	30	30	30	30	30	30	30	-

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2008.
Blank spots for other discharge points indicate that no discharge occurred during that particular month.

QUARTERLY GREASE & OIL
Averages by Month (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003	004
JAN	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
FEB					ND(5)							
MAR	ND(5)											
APR	8	ND(5)			ND(5)		ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
MAY			<5				ND(5)					
JUN												
JUL	ND(5)	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
AUG	<5				ND(5)					10		
SEP												
OCT	5	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
NOV												
DEC												
Limit:	15	15	15	15	15	15	15	15	15	15	15	15

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2008.

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QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING
(toxicity units, tu_a and tu_c)

Month	ACUTE Test Result	ACUTE 6-Month Median	*CHRONIC Test Result
JAN	0.00	0.41	
FEB	0.00	0.00	1.0
MAR	0.00	0.00	
APR	0.00	0.00	1.0
MAY			
JUN			
JUL	0.00	0.00	1.0
AUG			
SEP			
OCT	0.23	0.00	1.0
NOV			
DEC			
6-month median limit:		0.26	5.1

* This parameter is monitored for the State Ocean Plan instead of the NPDES Permit. A value of 1.0 indicates no chronic toxicity.

NOTE:
Increased acute toxicity testing in January, February and March were due to acute tests in the 4th quarter of 2007 that reported mortalities. The additional tests were negative for toxicity.

DISCHARGE 001N
ANNUAL ANALYSES

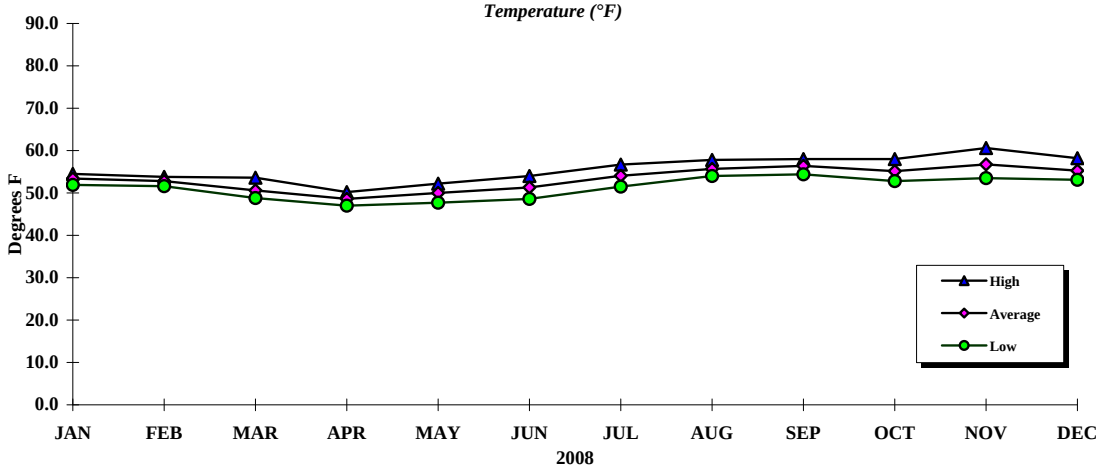
Sludge Parameter	Result	Limit
Percent Moisture	99%	None
Total Kjeldahl Nitrogen	720 mg/kg	None
Ammonia (N)	170 mg/kg	None
Nitrate (N)	ND(1) mg/kg	None
Total Phosphorus	140 mg/kg	None
pH	6.9	None
Oil and Grease	96 mg/kg	None
Boron	20 mg/kg	None
Cadmium	ND(0.3) mg/kg	10 X STLC*
Copper	4.6 mg/kg	10 X STLC
Chromium	ND(0.5) mg/kg	10 X STLC
Lead	ND(1) mg/kg	10 X STLC
Nickel	ND(0.5) mg/kg	10 X STLC
Mercury	ND(0.04) mg/kg	10 X STLC
Zinc	8 mg/kg	10 X STLC
Volume	1.05 tons	None

Note: Annual samples were collected in October.
*** STLC = Soluble Threshold Limit Concentration**

2008 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

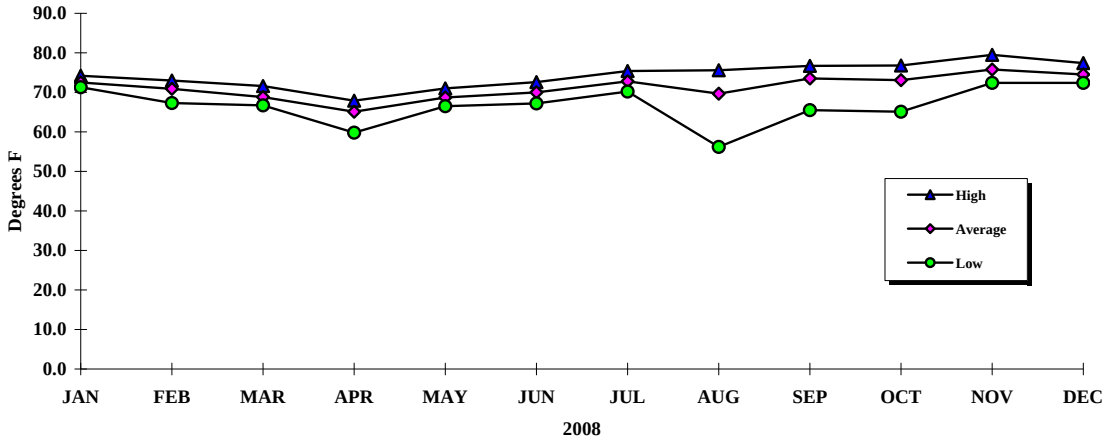
DISCHARGE 001 INFLUENT

Temperature (°F)



DISCHARGE 001 EFFLUENT

Temperature (°F)



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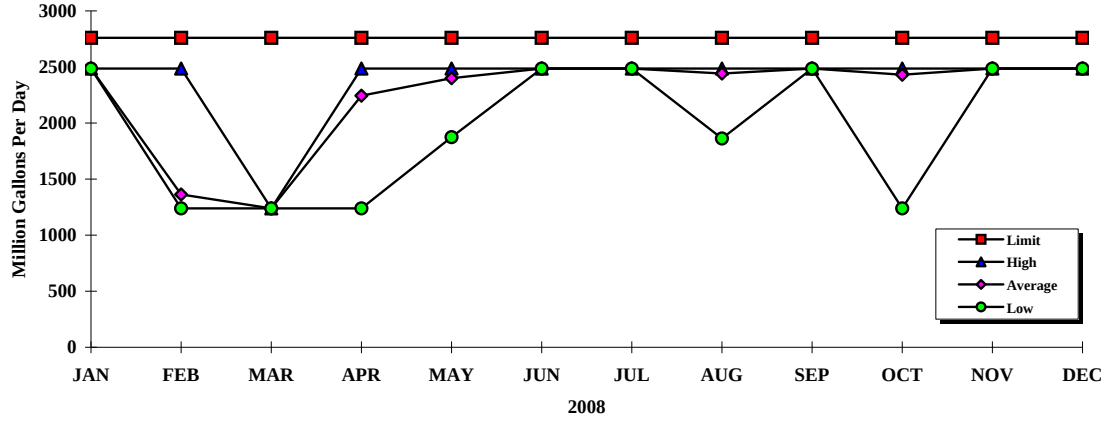
2008

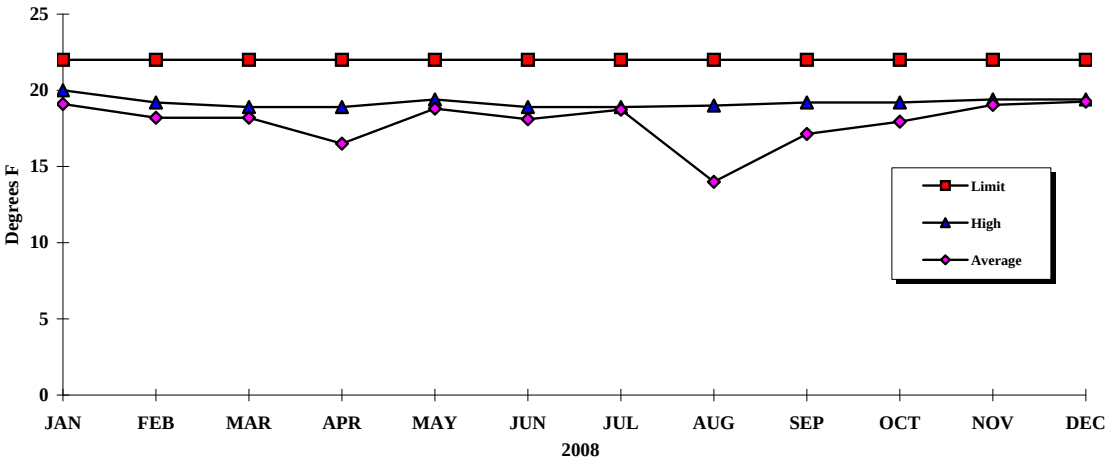
DISCHARGE 001 EFFLUENT

Flow (MGD)



DISCHARGE 001 EFFLUENT

Monthly Delta T (°F)



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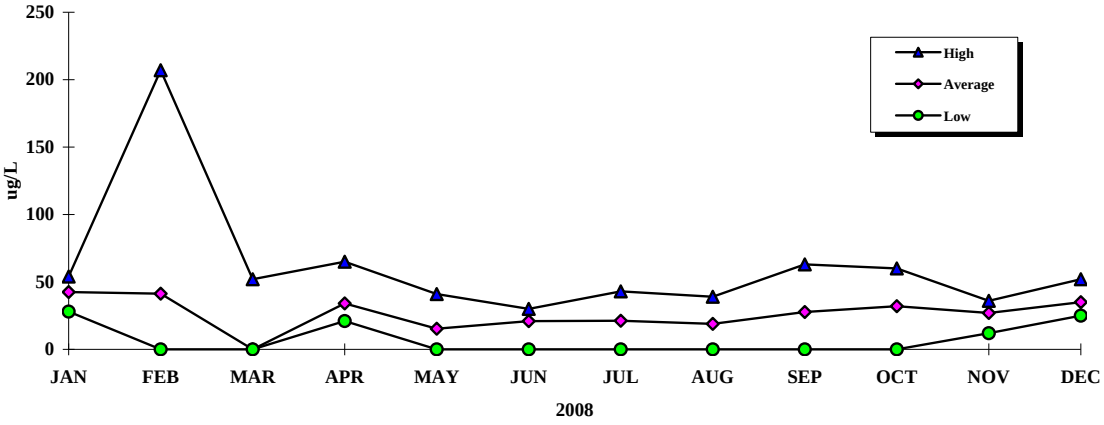
DISCHARGE 001

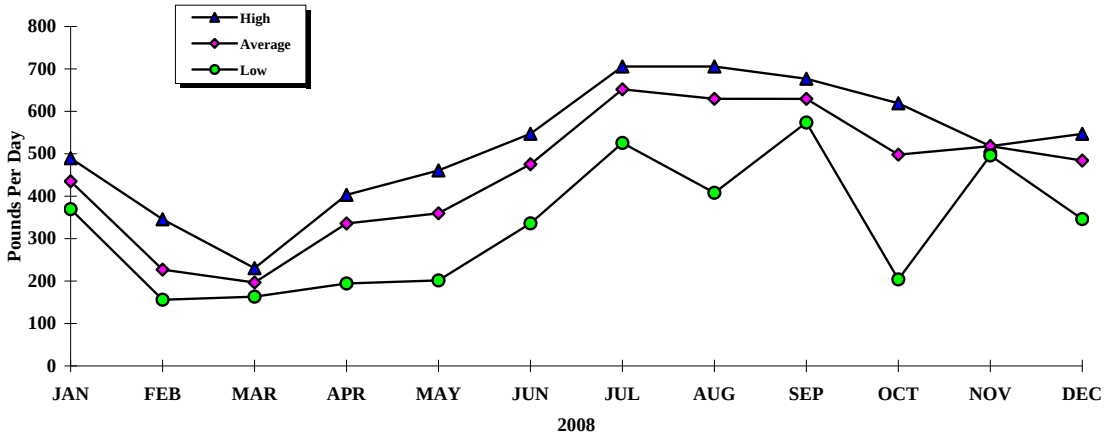
Total Chlorine Residual, ug/l



Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001

Total Chlorine Used, pounds per day



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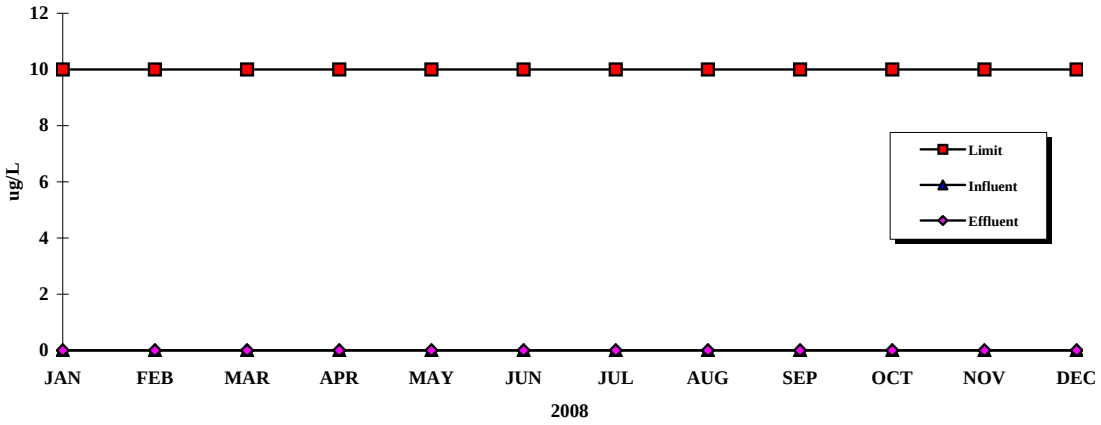
DISCHARGE 001

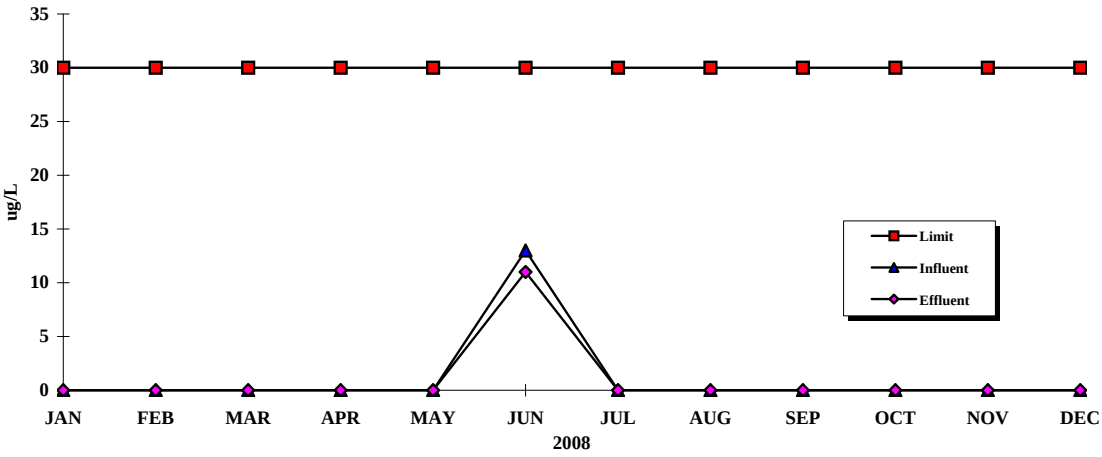
Copper (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Copper is 50 ug/l.

DISCHARGE 001

Nickel (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Nickel is 100 ug/l.

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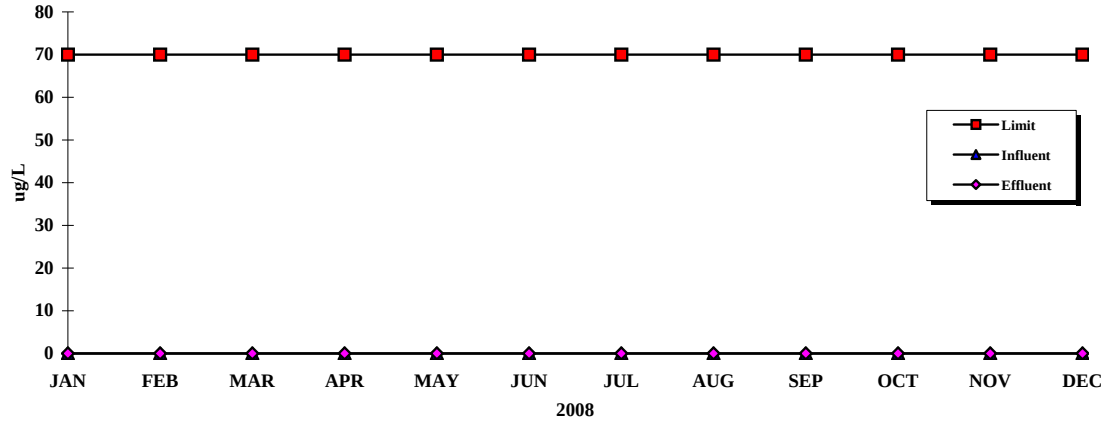
DISCHARGE 001

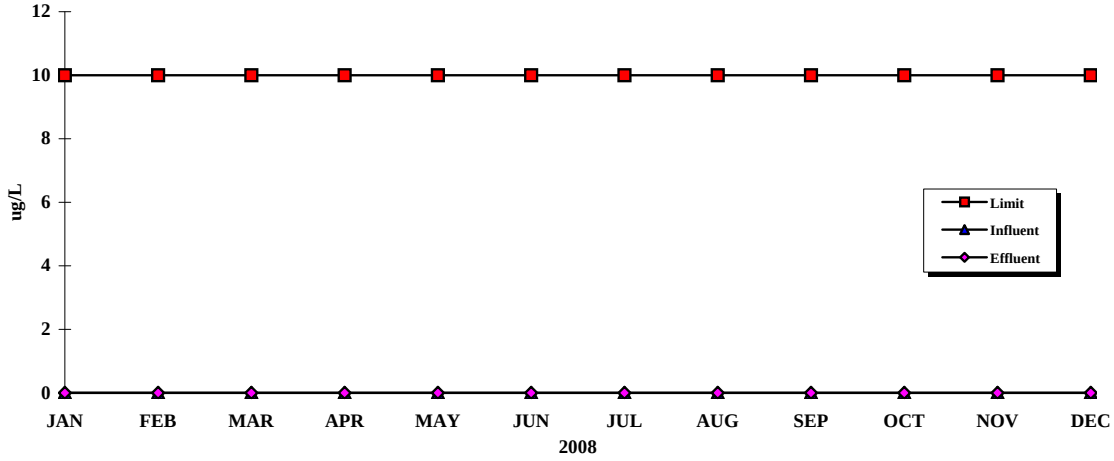
Zinc (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001

Chromium (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit is plotted on this chart. The daily maximum limit for chromium is 40 ug/l.

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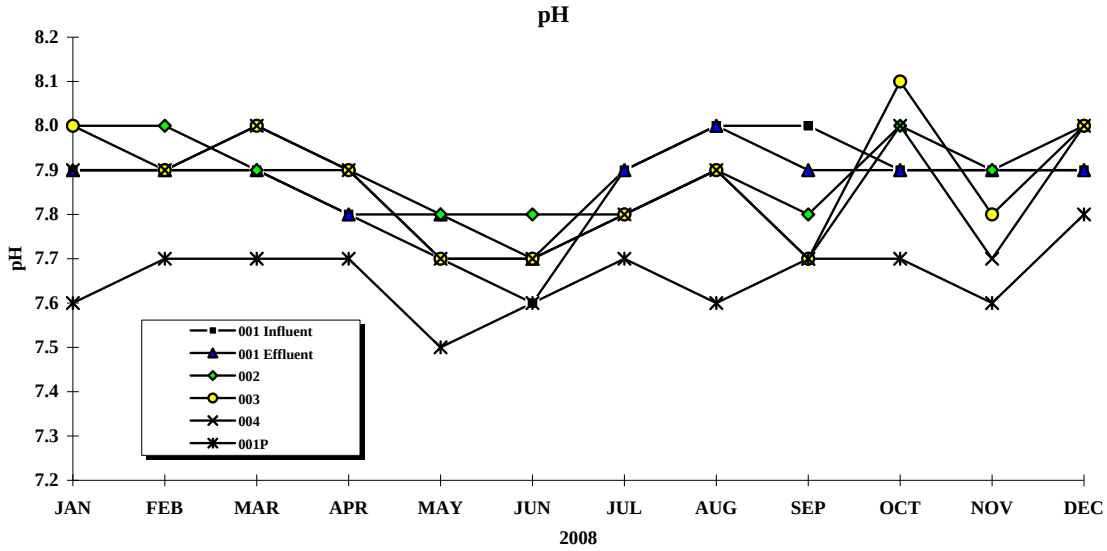
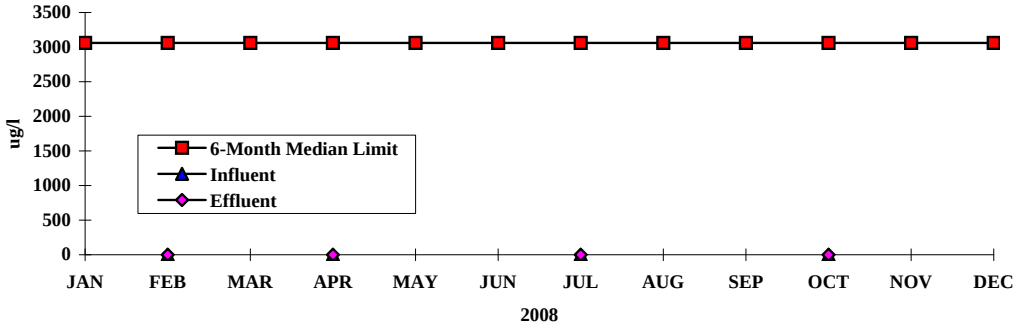


Note: Several data points on this chart overlap.

Discharge 001
Ammonia (as N, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
Influent and Effluent values overlap at four points on this plot.

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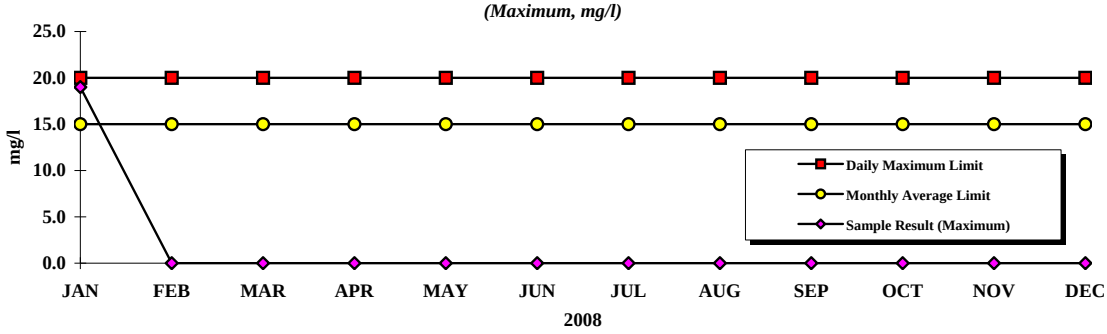
DISCHARGE 001F

Oil & Grease

(Maximum, mg/l)

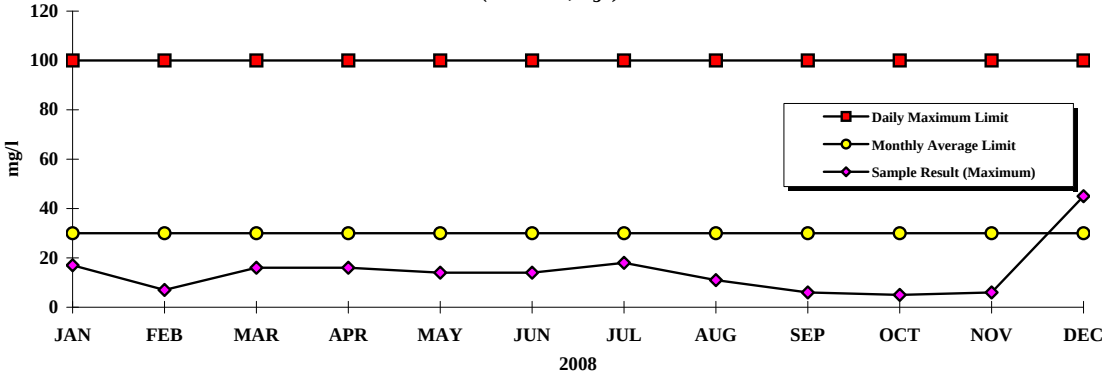


Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001F

Suspended Solids

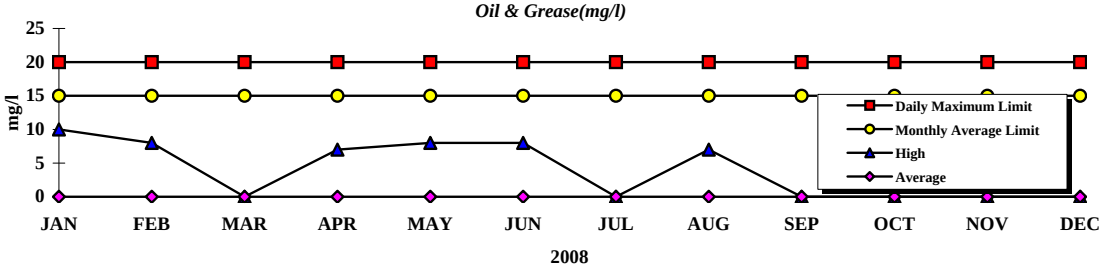
(Maximum, mg/l)



Note: Maximum values are plotted.

DISCHARGE 001N

Oil & Grease(mg/l)



Note: Values plotted at zero were below the reporting limit.
High, low and average values overlap at eleven points on this plot.

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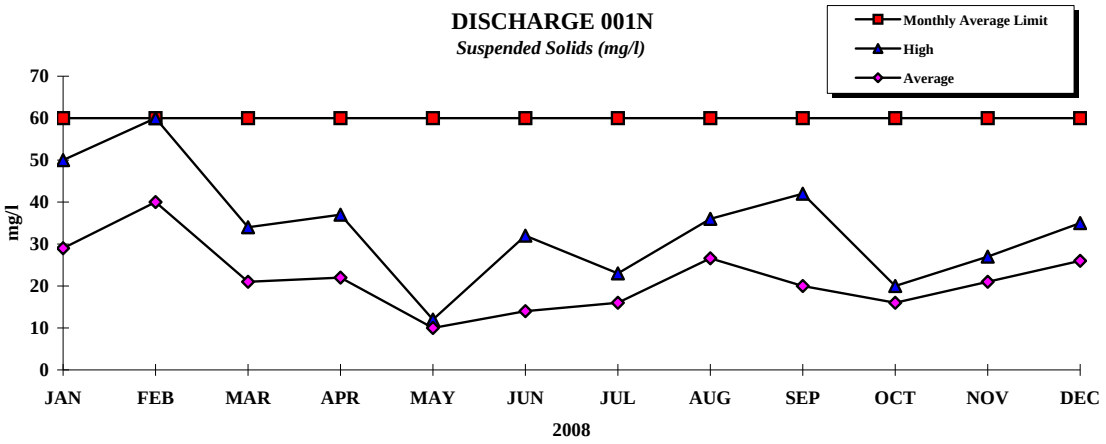

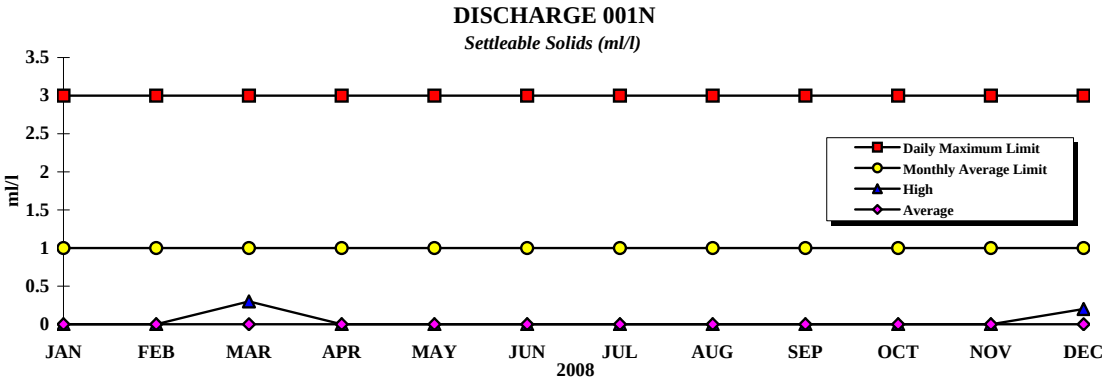

Note: Values plotted at zero were below the reporting limit.
High, average, and low values overlap at ten points on this plot.

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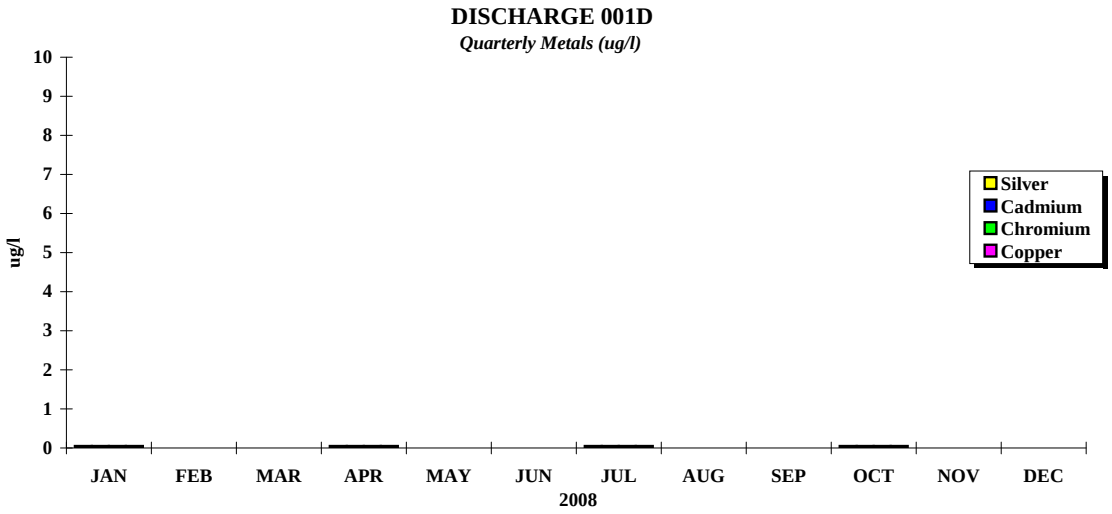
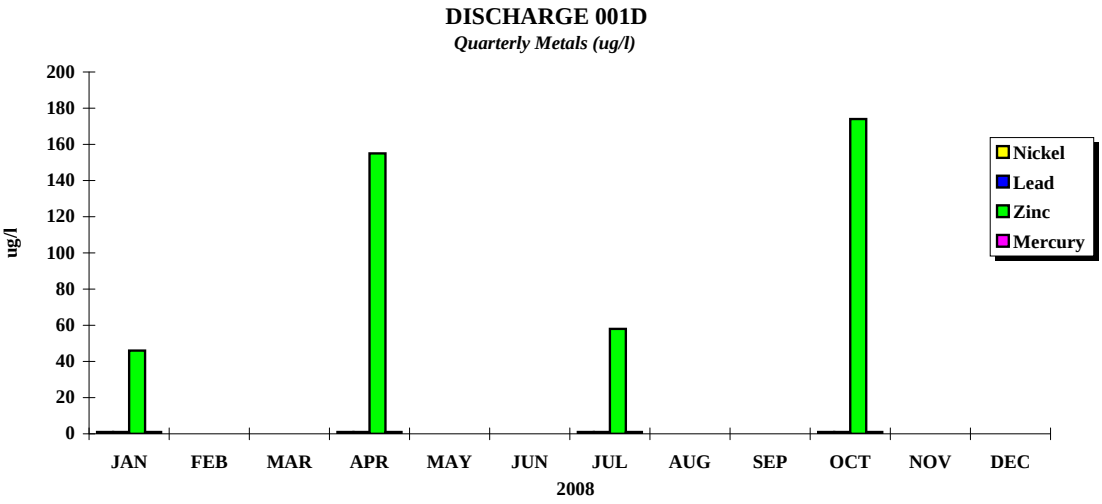


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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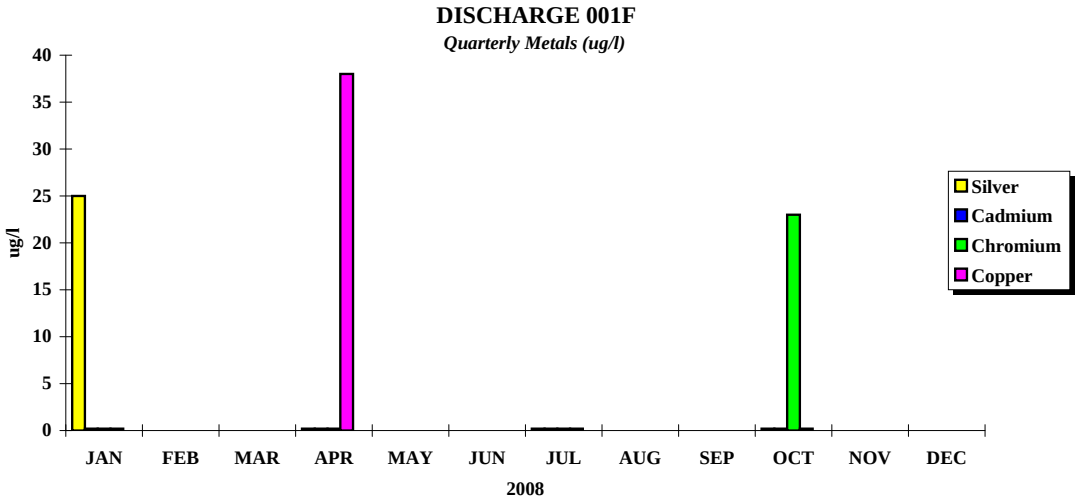
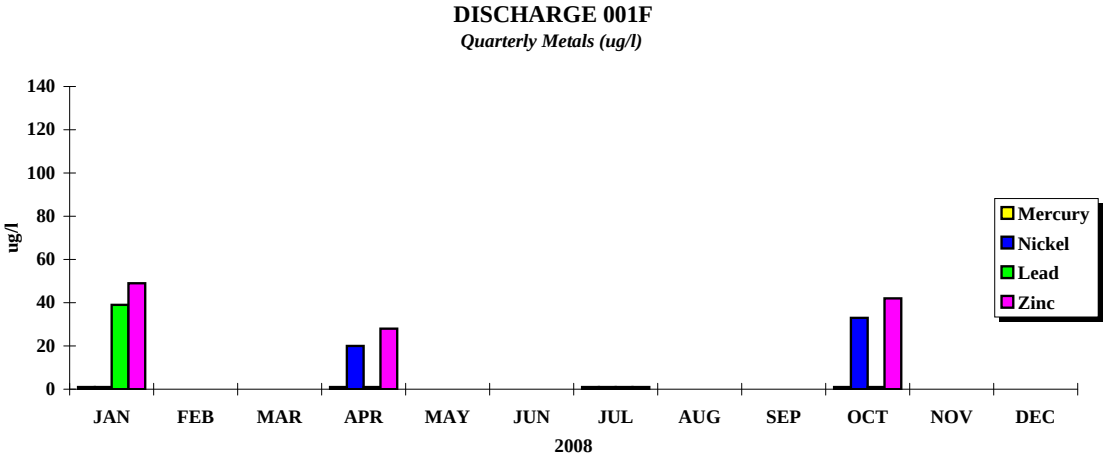


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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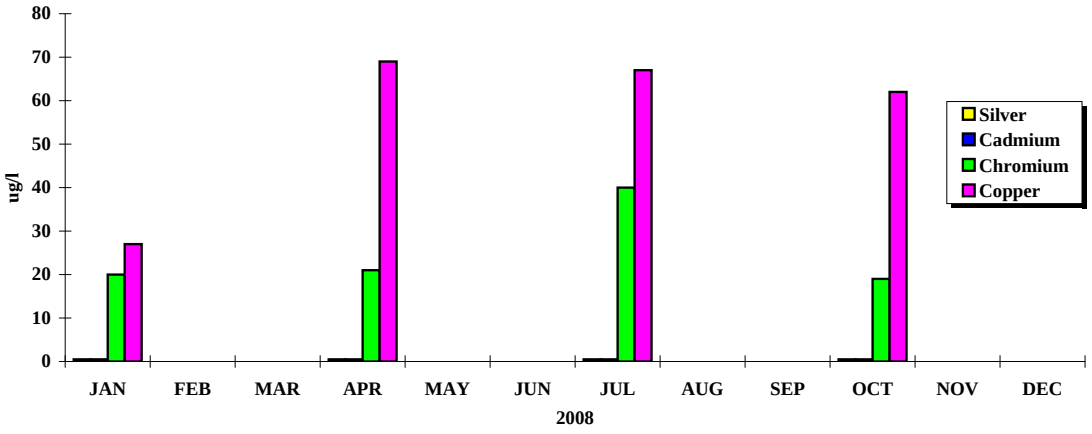
DISCHARGE 001H

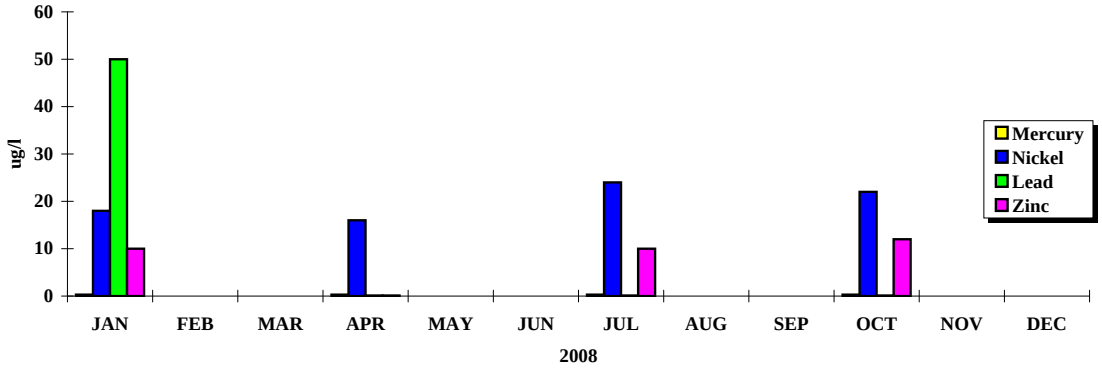
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

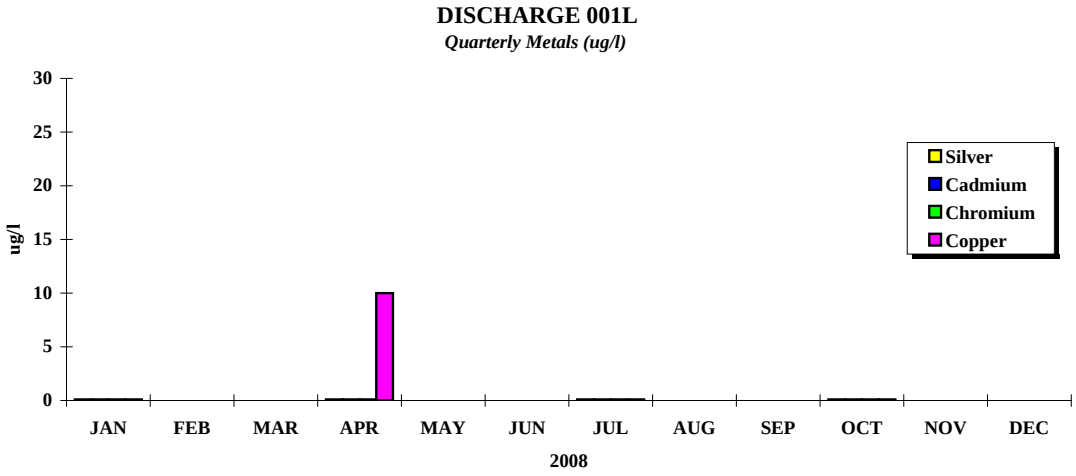
DISCHARGE 001H

Quarterly Metals (ug/l)

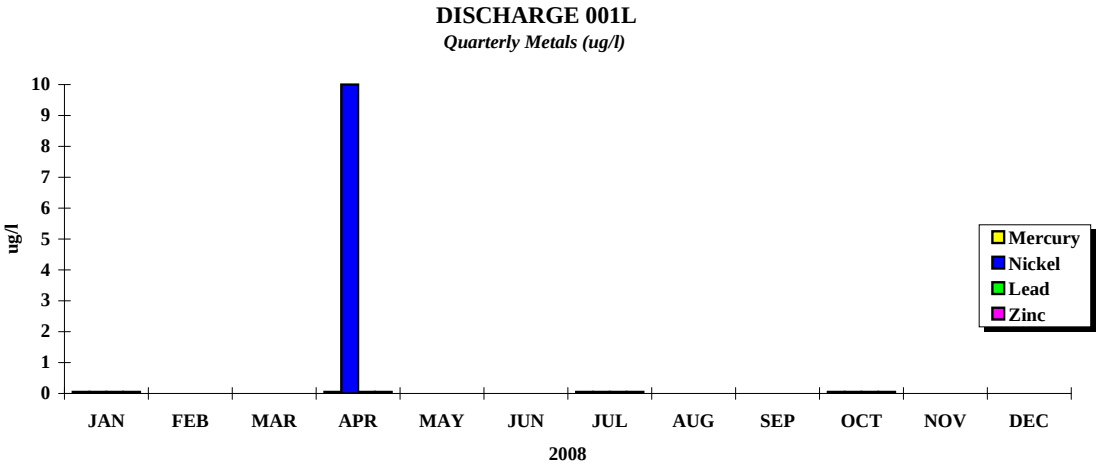


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2008 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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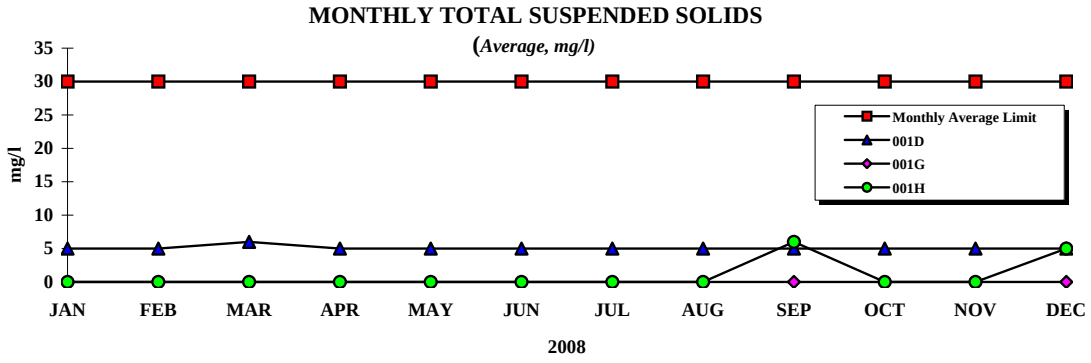
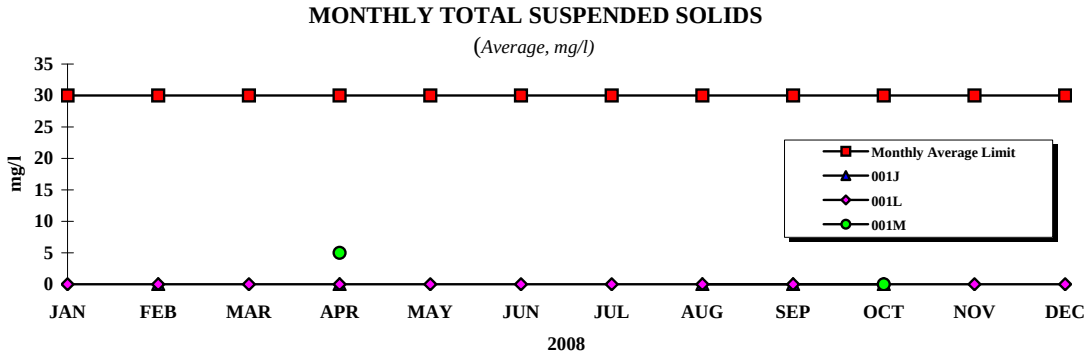
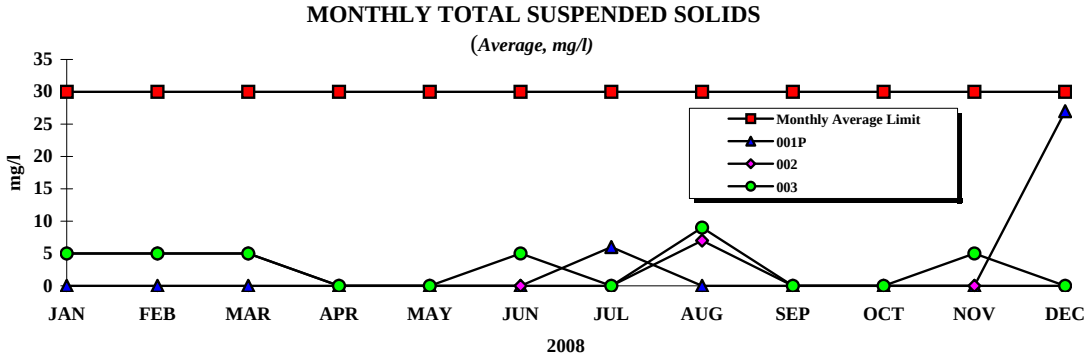


Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

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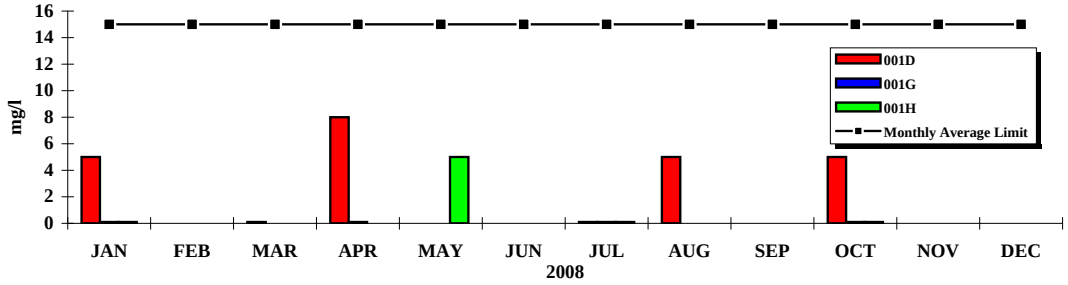
QUARTERLY OIL & GREASE

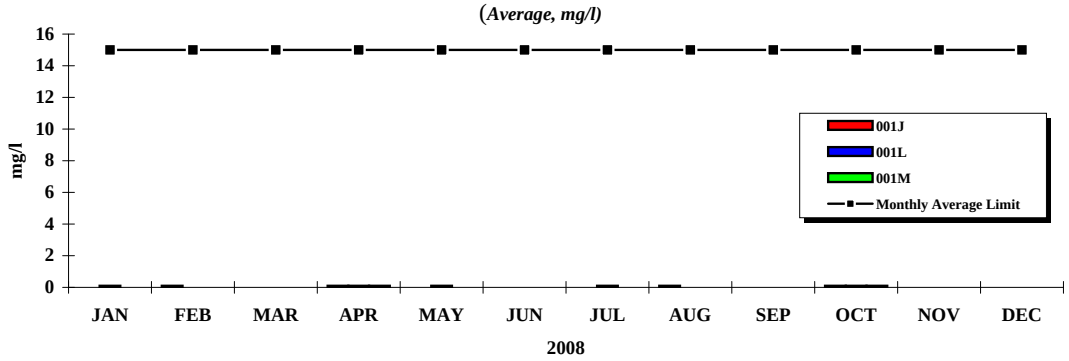
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit. Less than values are plotted at the value.

QUARTERLY OIL & GREASE

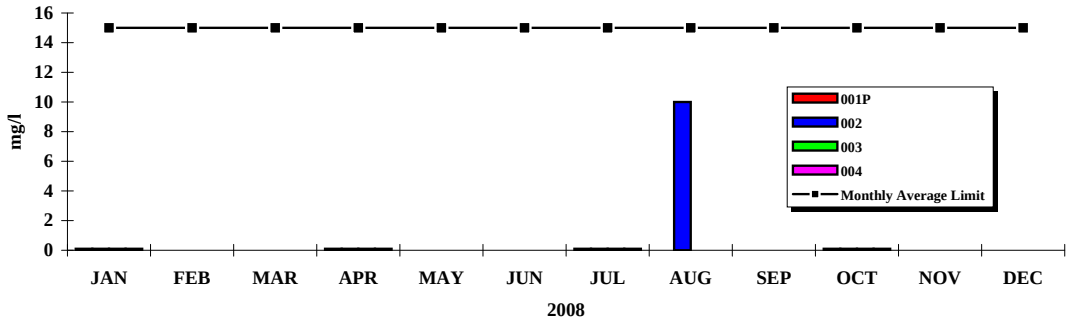
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

QUARTERLY OIL & GREASE

(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

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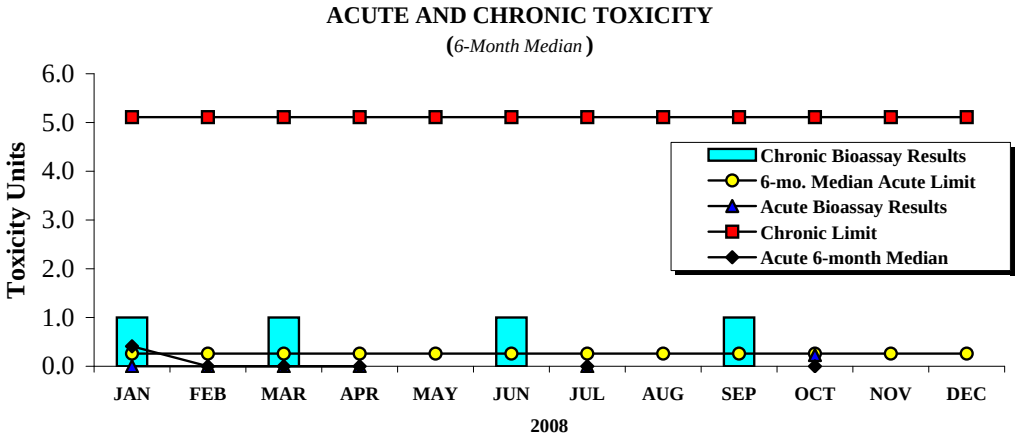

Note: High acute 6-month median value in January due to positive test results in late 2007.

Permit Monitoring Information
2007

Annual NPDES Discharge Self Monitoring Report (DSMR) Text, Tabular, and Graphical Data Sections

27 Pages

2007 Annual Summary Report on Discharge Monitoring
at the
Diablo Canyon Power Plant

OVERVIEW

A. This annual summary report follows the format used in quarterly monitoring reports. Analytical results below the respective Reporting Limit (ND or non-detect) are plotted as a "zero" value in accordance with ELAP guidance. Less-than results are typically reported to express an average of values that include non-detects and at least one positive result. These less-than results are plotted conservatively at the value. During 2007, discharges occurred from all discharge paths except 001I, 001K, 016, and 017.

B. California Ocean Plan Table B substances that were not analyzed for have not been added to the discharge stream. The substances listed in Table B in the 1990 Ocean Plan were each analyzed for and reported in the permit renewal application for Diablo Canyon Power Plant (DCPP) submitted in October 1994 and January 2001. There have been no changes in the activities conducted at the plant that would have significantly affected the results previously reported in the above referenced documents.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. Monitoring Data

a. Appendix 1 provides a list of the discharge path names for ease of reference. Appendix 2 contains monitoring data in tabular form. Appendix 3 contains monitoring data in graphical form.

b. Annual oil and grease analyses were performed in October on Stormwater/Yard Drain Discharges 005, 008, 009, 013, and 015. Results were less than 5 mg/l for discharges 009, 013 and 015. Results for discharges 005 and 008 were 11 mg/l and 5 mg/l, respectively. No discharges that resulted in adequate sample quantities occurred from 016 and no discharge occurred from 017 during 2007.

c. In October, Discharge 001D (Liquid Radioactive Waste Treatment System) annual grab samples for lithium, boron, and hydrazine were collected and analyzed. The results were less than 0.200 mg/l, 123 mg/l, and less than 0.003 mg/l, respectively.

2. Facility Operating and Maintenance Manual

Pacific Gas and Electric Company (PG&E) maintains a multiple volume Plant Manual (manual) at DCPP that contains procedures used for operation and maintenance activities at the plant, including those activities that relate to wastewater handling, treatment, sampling, analysis and discharge.

Plant procedures are prepared and reviewed by DCPP Staff and approved by DCPP Management. DCPP conducts biennial internal audits that review NPDES Plant procedures contained in the manual. Ongoing reviews of Plant procedures are conducted to assure that the manual remains valid, current, and complete for the facility.

3. Laboratories Used to Monitor Compliance

The following laboratories were used during 2007 for monitoring compliance. They are certified under the appropriate agencies for the test/analyses they perform. As part of the on-going annual certification process, these laboratories take part in, and have passed, annual quality performance evaluation testing.

a. PG&E Chemistry Laboratory, DCPP, Avila Beach, California (Lab Certification # CA01036)

b. Aquatic Bioassay Consultants, Ventura, California (Lab Certification # CA01907)

c. Creek Environmental, San Luis Obispo, California (Lab Certification # CA00975)

d. Columbia Analytical Services, Kelso, Washington (Lab Certification # WA00035)

e. TestAmerica, Inc., Earth City, Missouri (Lab Certification # MO00054)

4. Review of Compliance Record and Corrective Actions

a. Circulating Water Pump Chlorination/Bromination Monitoring

The 2007 quarterly NPDES reports discuss chlorination cycles when discharge monitoring was interrupted. These are listed below with brief descriptions of the cause and corrective action. When these monitoring interruptions occurred, engineering evaluations (approved by the CCRWQCB January 13, 1994; PG&E Letter No. DCL-94-002) were performed. Detailed descriptions of these evaluations are included in the quarterly reports. Evaluations concluded that discharge chlorine limits were not exceeded during these events. An apparent exceedence occurred in August 2007 unrelated to an unmonitored condition (see description below).

Date	Chlorination Cycle Monitoring interruptions	Cause	Corrective Action
05/12/07	Unit 2 1 reading	Power to chlorine monitoring system was interrupted.	Chlorine injection stopped until monitor power restored.
06/27/07 to 07/03/07	Unit 1 36 readings	Shift of monitor calibration after 6/27/07 scheduled maintenance.	Monitor recalibrated after identification of conservative bias.
07/03/07 to 07/11/07	Unit 1 48 readings	Faulty air pump on monitor.	Pump replaced.
08/02/07 to 08/03/07	Unit 1 and Unit 2 6 readings each Unit	Valve mis-positions.	Procedure revised.
08/28/07	Unit 2 1 reading	Valve mis-position.	Procedure revised.
09/14/07 to 09/15/07	Unit 1 2 readings	Sample line blockage.	Line flushed.

On August 14, 2007 the 0000 hours reading on the Unit 1 discharge chlorine monitor reached a maximum of 114 ppb. This value is below the NPDES limit of 200 ppb. However, it is above the calculated effluent limit of 89 ppb from the California Ocean Plan for intermittent 20-minute chemical treatments. Investigation indicated that a strainer at the intake supplying seawater to the injection lines had become significantly fouled with shell debris allowing chemical to accumulate in the line. When the valve was flushed, the accumulated chemical was flushed through the line into the 1-1 conduit resulting in increased levels of chlorine at the discharge. Upon discovery, injection rates were decreased and dechlorination was initiated. The strainer was manually cleaned the following day. Injection seawater supply has returned to normal levels. CCRWQCB staff were notified the afternoon of August 14, 2007. Long term actions included increasing the frequency of strainer flushing and scheduling cleaning of seawater supply lines and the flush line (scheduled for February and March 2008 during refueling outage 1R14).

b. Closed Cooling Water Releases

During 2007, maintenance activities that required draining of closed cooling water systems were performed and are summarized below. PG&E received concurrence from the CCRWQCB in response to letters dated July 19, 1995 (PG&E Letter DCL-95-156), May 23, 1996 (PG&E Letter DCL-96-522),

and May 19, 1997 (PG&E Letter DCL-97-533) regarding the use of glutaraldehyde and isothiazolin to control microbiological growth and corrosion in DCPP's closed cooling water systems. Any drainage from these systems is discharged at a flow-rate such that the chronic toxicity level is below the "No Observable Effect Concentration" (NOEC) at NPDES Discharge 001. The volumes of cooling water drained in 2007 from the component cooling water (CCW), intake cooling water (ICW), and service cooling water (SCW) systems are presented below. The glutaraldehyde (Glut) and isothiazoline (Iso) concentrations presented in the table below are system concentrations, not concentrations at the point of discharge to receiving water.

Date	System	Volume (gal)	Glut (mg/l)	Iso (mg/l)	Total Suspended Solids (mg/l)	Oil & Grease (mg/l)	Reason & Comment
01/03/07	Unit 1 ICW	200	164	<0.25	--	--	Routine maintenance
01/26/07	Unit 2 SCW	33,000	191	<0.25	7.1	4.0	Routine maintenance
02/21/07	Unit 2 ICW	3,300	171	<0.25	12.2	<1.4	Routine maintenance
03/07/07	Unit 1 ICW	3,307	137	6.7	35.0	4.5	Routine maintenance
04/30/07	Unit 1 ICW	1,100	<50	<0.25	12.3	4.4	Routine maintenance
04/30/07	Unit 1 SCW	11,000	<50	<0.25	17.1	1.5	Routine maintenance
05/09/07	Unit 1 CCW	9,920	186	<0.25	3.8	2.6	Routine maintenance
05/15/07	Unit 1 CCW	25	173	<0.25	--	--	Routine maintenance
05/19/07	Unit 1 CCW	1,451	186	<0.25	--	--	Routine maintenance
05/31/07	Unit 1 SCW	33,499	222	<0.25	19.7	4.4	Routine maintenance
06/07/07	Unit 2 SCW	33,300	<50	4.4	2.6	3.1	Routine maintenance
06/30/07	Unit 2 SCW	80	67	4.4	--	--	Routine maintenance
07/20/07	Unit 1 ICW	48	254	<0.25	--	--	System Leakage
08/06/07	Unit 2 ICW	33,214	201	1.93	6.4	2.0	Routine maintenance
07/12/07 to 08/17/07	Unit 1 ICW	111	175	1.8	--	--	System Leakage
08/22/07	Unit 1 ICW	3,313	108	1.8	9.8	3.1	Routine maintenance
09/05/07	Unit 1 ICW	15	246	<0.25	--	--	Routine maintenance
10/02/07	Unit 2 ICW	15	167	0.7	--	--	Routine maintenance
10/17/07	Unit 2 ICW	10	97	0.7	--	--	Routine maintenance
10/23/07	Unit 2 SCW	330	59	<0.25	--	--	Routine maintenance
10/29/07	Unit 1 ICW	5	228	7.6	--	--	Routine maintenance
11/11/07	Unit 2 SCW	100	109	3.4	--	--	Routine maintenance
11/18/07	Unit 1 SCW	33,100	202	3.4	2.7	3.3	Routine maintenance
11/20/07	Unit 1 ICW	10	60	7.6	--	--	Routine maintenance
11/20/07	Unit 2 SCW	33,100	78	<0.25	17.2	2.9	Routine maintenance

c. Injections of sulfur hexafluoride (SF6)

Injections of sulfur hexafluoride (SF6) into DCPP's condensers were performed to detect saltwater leaks during this year. CCRWQCB's Sorrel Marks concurred during conversations held in May 1996 that periodic use of SF6 would not increase DCPP's probability of exceeding NPDES permit limitations. Injections during 2007 are summarized below.

Date	Number of Injections	Duration (sec)	Injection Rate of SF6 (Standard Cubic Feet per Minute)	Total SF6 Injected (Cubic Feet)
01/29/07	8	30	10	40

d. Discharge 001N – Sewage Treatment Plant Discharge

On Thursday, 6/14/07, the weekly sample for settleable solids was taken from the sewage treatment plant (Discharge 001N). The sample was delivered to the certified contract laboratory on Friday 6/15/07. Analysis of the sample could not be performed until Sunday, 6/17/07 because appropriate laboratory personnel were unavailable. Therefore, the sample was analyzed approximately 24-hours after the end of the 48-hour maximum holding time. The result of the analysis was below the 0.1 ml/L reporting limit (non-detect). Due to the nature of settleable solids as an analyte, it is unlikely that the result was significantly affected by the extended holding period. Discussion regarding the late analysis were held with the sewage treatment system operator and the contract laboratory manager. Sampling times have been adjusted to avoid necessity for Friday sample deliveries to the off-site laboratory.

On June 21, 2007, the weekly sample from the sewage treatment plant (Discharge 001N) was taken and delivered to the off-site contract laboratory for analysis (Creek Environmental). The sample was analyzed on June 22nd, and reported to contain 3.9 ml/L of settleable solids. The maximum discharge concentration for this parameter from Pathway 001N in DCPP's NPDES permit is 3.0 ml/L. Upon receiving the analysis result from the contract laboratory on July 2, 2007, DCPP contacted the Regional Board and reported the apparent exceedance. Regional Board Staff (von Langen) waived the 5-day report and requested that a description of the event be included in the Discharge Monitoring Report for the second quarter 2007.

Settleable solids are typically non-detect (ND) (<0.1 ml/L) in samples taken from the sewage system effluent. Samples are obtained from the bucket of the system decanting apparatus. This is a conservative location for sampling the pathway because it is upstream of the lift station cistern, where mixing and dilution by previously-decanted fluid occurs.

Results for settleable solids samples taken in the two weeks prior to June 21, (June 8th and June 14th) were 0.1 ml/L and ND respectively. The result for the sample subsequent to June 21 (on June 27th) was ND again. The monthly average limit for settleable solids in 001N effluent is 1.0 ml/L. The monthly average limit was approached but not exceeded for June inclusive of the 3.9 ml/L laboratory result obtained from the June 21st sample.

The system operator performs at least two samples in sequence each week during a decant phase. One sample is analyzed on-site to assess real-time system performance, and the second sample sent to a qualified off-site laboratory. The result for on-site analysis of the sample taken at 09:15 on June 21st was 2.5 ml/L settleable solids. However, this analysis is not recognized as a formal result because it is not conducted by a certified laboratory. The second sample taken at 09:17 was delivered to a contract laboratory certified to perform the analysis by the State Environmental Laboratory Accreditation Program (ELAP). The 3.9 ml/L settleable solids result of that analysis is the value reported for the pathway.

The June 21st samples were taken as sewage plant operation was in a transitional period to a more typical processing rate after a plant refueling outage when sewage system flows are significantly increased. A potential system anomaly that could result from substantial sewage flow reduction is described below in the background information. No other system changes or events were identified as potential contributing factors to the June 21st laboratory result. No system operating condition or equipment issue has been identified that would have generated excess settleable solids in the decanting aqueous phase. System pumps, aeration equipment, and electrical/mechanical equipment logic controls showed no evidence of failure. Operational logs for the facility did not evidence significant unusual conditions previous to, or immediately after, the June 21st sampling period.

Background information regarding the DCPP sewage treatment system:

Liquid sewage influent undergoes a 90-minute aeration within a cement treatment tank. Aeration is followed by a 60-minute settling period. Following settling, a decanting arm slowly pivots down to allow

the separated aqueous phase to flow-out over a 90-minute period. Settled solids in the treatment tank can then be pumped to a sludge holding tank if required. Solids transfer to the sludge holding tank is accomplished both automatically and manually. An automatic transfer of solids occurs once daily; typically lasting for 10-minutes and occurring at the end of a settling period. The sewage treatment plant operator may elect to perform additional manual transfer to maintain suspended solids in a 3,000-3,500 mg/L target band during aeration steps. These manual transfers are intended to optimize aerobic (oxygenated) bacterial digestion of the sewage undergoing treatment. During periods when average sewage flow is significantly increasing or decreasing, the system operator may need to make adjustments of the daily sludge transfer rate to maintain target operating ranges.

Following the settling phase, effluent flows into the decanting bucket of the pivot arm and is then gravity fed to a pumping station cistern. The pumping station lifts accumulated effluent within the cistern which then flows by gravity to the 001N discharge point. The 001N pathway discharges into, and is combined with, DCPP's main cooling water circulating system flow prior to final outfall through the 001 discharge. Effluent from the sewage treatment system is therefore significantly diluted prior to final outfall from the power plant to receiving waters.

Prolonged suspension of solids during the settling phase can occur if conditions that inhibit normal settling exist. One such set of conditions includes an unusually high bacterial population and relatively vigorous anaerobic (non-oxygenated) bacterial digestion within the solid phase. Vigorous anaerobic digestion within the sludge could generate off-gassing at a rate sufficient to keep pushing a portion of the solids back up into the aqueous layer. It is believed that this type of scenario may have caused the isolated event on June 21st, 2007. However, that has not been conclusively determined.

Significant changes of the system bacterial population can occur during transitions from a relatively high rate of processing to lower, more routine, operational volumes. Such circumstances take place following refueling outages at DCPP when augmented plant staffing is rapidly reduced, i.e., the plant population is reduced by more than one fourth within a single week. Essentially, the bacterial population established during heavy sewage influx is subjected to reduced nutrient availability, causing the population equilibrium to shift to a new state. Such a shift has potential to produce a significant anaerobic system condition that may be accompanied by gaseous disturbance of the settled solids. Such events are not routine, and would only occur when variant conditions (temperature, bacterial population density and composition, bacterial nutrient mixture, influent chemical composition) combined to create an environment favorable for such an event. Such conditions in a frequently aerated treatment system would be considered off-normal, and anticipated to be short term in duration.

e. Acute Bioassay Mortalities – 4th Quarter 2007

Laboratory reports showed apparent toxicity for effluent in two acute bioassays. Three acute bioassays were performed on water sampled from Discharge 001 on October 25-29, 2007, December 6-10, 2007, and December 14-18, 2007. The October bioassay results indicated possible toxicity with one mortality in the 100% solution. Therefore a second test was run on a sample taken on December 5, 2007. The second test result indicated additional toxicity. However, results were suspect because one 100% tank had 5 mortalities and the other 100% tank had none. A third test on DCPP effluent, sampled on December 13, 2007, indicated no toxicity. Based on the results of the three tests, the six month median is 0.41 (95% survival) which exceeds DCPP's 0.26 acute toxicity limit. Toxicity tests are considered valid if control survival is above 90%. Therefore, the first test result was within the standard range for acceptable survival levels, yet it still exceeded the limits set forth in DCPP's NPDES permit (Order 90-09). One valid mortality would cause exceedance of this limit. In discussions with laboratory staff and Regional Water Quality Control Board staff, it was agreed that these positive test results were likely anomalies and not true indications of effluent toxicity. The validity of this conclusion is supported by the results of the chronic toxicity test, a far more sensitive test, that did not indicate any toxicity for the October water sample. The acute toxicity median value of 0.41 resulting from inclusion of these test results is therefore suspect, and actual effluent toxicity exceedance highly unlikely.

B. Monitoring of Receiving Water

1. Ecological Studies at Diablo Canyon

Marine ecological monitoring was continued during 2007 under the Receiving Water Monitoring Program (RWMP) as requested in a letter from the Central Coast Regional Water Quality Control Board (CCRWQCB) dated December 9, 1998, and as detailed in a letter from PG&E dated January 8, 1999 (DCL-99-503). This program includes tasks from the Ecological Monitoring Program (EMP) with additional stations and increased sampling frequencies. This program replaces the EMP and the Thermal Effects Monitoring Program (TEMP). Several one-year-only tasks outlined in the above letters were completed in 1999 and were not requested to be performed in 2007. Results of 2006 RWMP data were submitted to the CCRWQCB on April 28, 2007. A table in Appendix 4 summarizes requirements and completed tasks for 2007. The second replicate of the fourth survey of Fish Observation Transects was completed for six out of twelve stations due to unfavorable ocean conditions from December 2007 through January 2008.

2. In Situ Bioassay

Results of the Mussel Watch Program are reported to the CCRWQCB directly by the California Department of Fish and Game in the agency's periodic report for this program.

C. Sodium Bromide Treatment Program

DCPP continued its integrated sodium bromide and "foul release coating" strategy to control macrofouling in the Circulating Water System (CWS). The treatment program consists of six 20-minute injections (at four hour intervals) of a blend of generic sodium bromide and sodium hypochlorite into DCPP's seawater intake conduits. Each injection attempts to achieve a target concentration of 200 parts per billion (ppb) Total Residual Oxidant (TRO) at the inlet waterbox of the main condensers. Discharge TRO, measured at the plant outfall, remained below NPDES limitations, except for one reading in August (reference section 4.a). Typically, discharge values were between 20 ppb to 50 ppb. In conjunction with the chemical treatment, untreated portions of the cooling water system were previously painted with a non-toxic "foul release coating" to reduce or prevent attachment of fouling organisms.

Both conduits of Unit 1 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day through mid-April 2007 with brief interruptions due to check valve and discharge monitor maintenance. On April 20th, sodium bromide injections were shut down, while sodium hypochlorite injections continued until April 27th when Unit 1 main conduit chemical treatment was secured for the 1R14 refueling outage. Simultaneous injections were restarted May 24th and ran through the rest of 2007 with brief interruptions for maintenance activities in mid-August, late September, late October, early November and early December (conduit 1-1 only).

Both conduits of Unit 2 were treated with simultaneous injections of sodium bromide and sodium hypochlorite six times a day throughout the first quarter with a brief interruption due to check valve maintenance. Unit 2 injections were shut down on March 30 in preparation for a Unit 2 tunnel cleaning that started in early April. Injections were restarted after tunnel cleaning completion on April 3rd and 5th. Simultaneous injections of sodium hypochlorite and sodium bromide continued for Unit 2 the remainder of 2007 with brief interruptions due to maintenance activities in April, May, mid-August, late September, late October, early November and early December.

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DISCHARGE 001

	TEMPERATURE (DEG F)								FLOW (MGD)		
	INFLUENT			EFFLUENT			DELTA T				
Month	high	low	avg	high	low	avg	high	avg	high	low	avg
JAN	55.0	52.7	53.8	73.9	71.6	72.8	19.7	19.0	2486	2486	2486
FEB	56.1	52.4	54.5	75.0	71.2	73.2	19.2	18.7	2486	2486	2486
MAR	53.5	50.6	51.9	72.1	69.1	70.4	19.0	18.5	2486	2486	2486
APR	51.3	48.4	50.2	70.1	64.8	68.6	19.2	18.4	2486	1862	2419
MAY	51.9	48.7	50.0	70.2	62.1	67.3	18.9	17.3	2486	1279	1499
JUN	54.7	49.3	51.2	73.4	66.5	69.4	18.7	17.6	2486	2486	2486
JUL	54.8	49.8	52.5	73.1	68.0	70.7	18.5	18.3	2486	2486	2486
AUG	55.5	50.7	53.9	74.0	60.4	70.5	19.1	16.6	2486	1950	2465
SEP	57.1	51.6	54.7	76.1	70.2	73.4	19.1	18.7	2486	2486	2486
OCT	55.6	51.0	53.5	74.7	69.9	72.5	19.6	19.0	2486	2486	2486
NOV	56.6	53.1	54.6	76.1	72.1	73.8	19.7	19.2	2486	2486	2486
DEC	54.5	51.4	53.0	74.0	63.1	71.8	20.2	18.8	2486	1941	2457
limit:		-			-		22		2760		

The INFLUENT and EFFLUENT "high" and "low" temperture values correspond to the highest and lowest daily average value for that month. The INFLUENT high and low temperature does not necessarily correspond to the same day as the EFFLUENT high and low temperature for that month. The "avg" temperature for INFLUENT and EFFLUENT is the average for the entire month. The Monthly Delta T "high" is the highest Delta T for a day of the month based on daily average INFLUENT and EFFLUENT temperature values. The "Avg" temperature is calculated from INFFLUENT and EFFLUENT monthly avg values.

DISCHARGE 001

	TOTAL RESIDUAL CHLORINE (daily max. ug/l)			TOTAL CHLORINE USED (lbs/day)		
Month	high	low	avg	high	low	avg
JAN	53	14	33	619	430	496
FEB	49	16	32	547	432	468
MAR	71	14	32	547	230	450
APR	28	<10	20	461	202	370
MAY	62	<20	32	465	134	250
JUN	34	12	25	518	446	490
JUL	34	10	22	562	403	480
AUG	114	<10	16	706	410	596
SEP	37	<10	16	749	394	656
OCT	37	11	25	734	360	548
NOV	41	13	26	576	384	536
DEC	49	23	35	518	341	474

Note that the residual chlorine limits in Permit CA0003751, Order 90-09, is a daily max of 200 ug/l and includes a time-based limit (per the Ocean Plan) which depends on the length of the respective chlorination cycle.

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DISCHARGE 001

METALS (monthly avg. ug/l)

	CHROMIUM		COPPER		NICKEL		*ZINC	
Month	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
FEB	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
APR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAY	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
JUN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
JUL	ND(10)	ND(10)	ND(10)	ND(10)	10	ND(10)	ND(10)	ND(10)
AUG	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
SEP	ND(10)	ND(10)	ND(10)	ND(10)	10	ND(10)	ND(10)	ND(10)
OCT	0.5	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
NOV	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
DEC	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	10	ND(10)
6-month median limit:		10	-	10	-	30	-	70

*** Note: Influent zinc has been historically higher than effluent concentrations.**

DISCHARGE 001
VARIOUS ANNUAL ANALYSES
(monthly avg. ug/l)

Parameter	Influent	Effluent	6-Mo. Med. Effluent Limit
Arsenic	1.5	1.5	30
Cadmium	<0.04	<0.04	10
Cyanide	ND(10)	ND(10)	30
Lead	0.22	0.04	10
Mercury	ND(0.001)	ND(0.001)	0.2
Silver	<10	<10	2.9
Titanium	-	ND(10)	none
*Phenolic Compounds (non-chlorinated)	ND(13.32)	ND(15.12)	150
**Phenolic Cmpds (chlorinated)	ND(3.35)	ND(3.75)	10
***PCB's	ND(1.59)	ND(1.60)	none

***Reporting limits shown are the sum of individual Reporting Limits for 8 target compounds.**
****Reporting limits shown are the sum of individual Reporting Limits for 6 target compounds.**
*****Reporting limits shown are the sum of individual Reporting Limits for 7 target compounds.**

DISCHARGE 001
AMMONIA (as N) (ug/l)

Month	Influent	Effluent
JAN		
FEB	ND(200)	ND(200)
MAR		
APR	ND(200)	ND(200)
MAY		
JUN		
JUL	ND(200)	ND(200)
AUG		
SEP		
OCT	ND(200)	ND(200)
NOV		
DEC		
6-month median limit:		3060

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MONTHLY pH (averages)

Discharge:	001		002	003	004	001P
Month	Influent	Effluent				
JAN	8.0	8.0	7.9	7.8	8.0	8.0
FEB	7.9	7.9	8.0	7.9	8.0	7.8
MAR	7.9	7.9	8.0	7.9	8.0	7.8
APR	7.9	8.0	7.9	8.0	7.9	7.7
MAY	7.8	7.8	7.9	7.9	7.9	7.7
JUN	7.8	7.8	7.9	7.8	7.8	7.6
JUL	8.1	8.1	8.0	8.0	8.0	7.8
AUG	7.9	7.9	7.8	7.9	8.0	7.6
SEP	8.1	8.1	8.1	8.1	8.1	7.8
OCT	7.9	7.9	7.9	7.9	8.0	7.7
NOV	8.0	8.0	8.0	8.0	7.8	7.7
DEC	7.9	7.9	7.9	7.9	8.0	7.7

DISCHARGE 001F

	GREASE & OIL (mg/l)		SUSPENDED SOLIDS (mg/l)	
Month	high	avg	high	avg
JAN	ND(5)	ND(5)	19	18
FEB	11	11	17	17
MAR	ND(5)	ND(5)	13	13
APR	ND(5)	ND(5)	17	16
MAY	ND(5)	ND(5)	15	15
JUN	ND(5)	ND(5)	13	13
JUL	ND(5)	ND(5)	13	12
AUG	ND(5)	ND(5)	10	10
SEP	5	5	20	20
OCT	ND(5)	ND(5)	13	13
NOV	ND(5)	ND(5)	15	14
DEC	ND(5)	ND(5)	10	9
limit:	20	15	100	30

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average Limits.

DISCHARGE 001N

(Monthly Summary of Weekly Data)

	GREASE & OIL (mg/l)			SUSPENDED SOLIDS (mg/l)			SETTLEABLE SOLIDS (ml/l)		
Month	high	low	avg	high	low	avg	high	low	avg
JAN	ND(5)	ND(5)	ND(5)	17	10	13	ND(0.1)	ND(0.1)	ND(0.1)
FEB	ND(5)	ND(5)	ND(5)	28	12	16	ND(0.1)	ND(0.1)	ND(0.1)
MAR	6	ND(5)	<5	74	15	32	ND(0.1)	ND(0.1)	ND(0.1)
APR	ND(5)	ND(5)	ND(5)	14	8	12	ND(0.1)	ND(0.1)	ND(0.1)
MAY	6	ND(5)	<5	76	29	44	ND(0.1)	ND(0.1)	ND(0.1)
JUN	ND(5)	ND(5)	ND(5)	58	7	33	3.9	ND(0.1)	1.0
JUL	ND(5)	ND(5)	ND(5)	45	ND(5)	20	ND(0.1)	ND(0.1)	ND(0.1)
AUG	6	ND(5)	<5	17	8	12	ND(0.1)	ND(0.1)	ND(0.1)
SEP	ND(5)	ND(5)	ND(5)	14	10	12	ND(0.1)	ND(0.1)	ND(0.1)
OCT	ND(5)	ND(5)	ND(5)	23	11	15	ND(0.1)	ND(0.1)	ND(0.1)
NOV	ND(5)	ND(5)	ND(5)	23	9	14	ND(0.1)	ND(0.1)	ND(0.1)
DEC	ND(5)	ND(5)	ND(5)	33	ND(5)	16	ND(0.1)	ND(0.1)	ND(0.1)
limit:	20	-	15	-	-	60	3.0	-	1.0

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average limits.

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DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu
JAN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	16	26	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	10
FEB																
MAR																
APR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	31	61	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAY																
JUN																
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	<10	<10	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
AUG																
SEP																
OCT	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	19	27	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	140	ND(10)
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites. 001F analyses performed quarterly on a composite of weekly samples.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn
JAN	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	16	ND(10)	13	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	55
FEB																
MAR																
APR	ND(0.2)	ND(10)	ND(10)	212	ND(0.2)	22	ND(10)	17	ND(0.2)	ND(10)	ND(10)	ND(10)	ND(0.2)	11	ND(10)	17
MAY																
JUN																
JUL	ND(0.20)	ND(10)	ND(10)	43	<0.20	<10	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	ND(10)	ND(10)	ND(10)
AUG																
SEP																
OCT	ND(0.20)	ND(10)	ND(10)	170	ND(0.20)	16	ND(10)	<10	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	86	ND(10)	57
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites.
001F analyses performed quarterly on a composite of weekly samples.

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MONTHLY TOTAL SUSPENDED SOLIDS
Averages (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003
JAN	<5	ND(5)	ND(5)				ND(5)	ND(5)	23	ND(5)	ND(5)
FEB	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	9	ND(5)
MAR	<5	ND(5)	ND(5)				ND(5)		19	<5	6
APR	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	ND(5)	9
MAY	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	6	23
JUN	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	<5
JUL	<5	ND(5)	ND(5)				ND(5)	7	5	ND(5)	5
AUG	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	ND(5)	ND(5)
SEP	<5	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	ND(5)	5
OCT	<5	ND(5)	ND(5)				ND(5)		5	<5	5
NOV	<5	ND(5)	ND(5)				ND(5)		5	ND(5)	10
DEC	<5	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	<5	14
Limit:	30	30	30	30	30	30	30	30	30	30	-

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2007.
Blank spots for other discharge points indicate that no discharge occurred during that particular month.

QUARTERLY GREASE & OIL
Averages by Month (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003	004
JAN	ND(5)	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	
FEB	ND(5)				ND(5)		ND(5)					ND(5)
MAR	ND(5)											
APR	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
MAY	<5						ND(5)					
JUN	ND(5)						ND(5)					
JUL	<5	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
AUG	<5				ND(5)							
SEP	8							ND(5)				
OCT	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
NOV	<5											
DEC	ND(5)		ND(5)					ND(5)				
Limit:	15	15	15	15	15	15	15	15	15	15	15	15

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2007.

2007 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING
(toxicity units, tu_a and tu_c)

Month	ACUTE Test Result	ACUTE 6-Month Median	*CHRONIC Test Result
JAN			
FEB	0.00	0.00	1.0
MAR			
APR	0.00	0.00	1.0
MAY			
JUN			
JUL	0.00	0.00	1.0
AUG			
SEP			
OCT	0.41	0.41	1.0
NOV			
DEC	0.82	0.41	
6-month median limit:		0.26	5.1

* It should be noted that this parameter is monitored for the State Ocean Plan instead of the NPDES permit. A value of 1.0 indicates no chronic toxicity.

NOTE: Two acute toxicity tests in October and December had mortalities. Test results were suspect, but are being reported. See Summary of Monitoring Program Section 4.e.

DISCHARGE 001N
ANNUAL ANALYSES

Sludge Parameter	Result	Limit
Percent Moisture	99%	None
Total Kjeldahl Nitrogen	1200 mg/kg	None
Ammonia (N)	86 mg/kg	None
Nitrate (N)	ND(1) mg/kg	None
Total Phosphorus	230 mg/kg	None
pH	7.0	None
Oil and Grease	ND(200) mg/kg	None
Boron	ND(3) mg/kg	None
Cadmium	ND(0.3) mg/kg	10 X STLC*
Copper	3.6 mg/kg	10 X STLC
Chromium	ND(0.5) mg/kg	10 X STLC
Lead	ND(1) mg/kg	10 X STLC
Nickel	ND(0.5) mg/kg	10 X STLC
Mercury	ND(0.04) mg/kg	10 X STLC
Zinc	7.4 mg/kg	10 X STLC
Volume	1.06 tons	None

Note: Annual samples were collected in October.

* STLC = Soluble Threshold Limit Concentration

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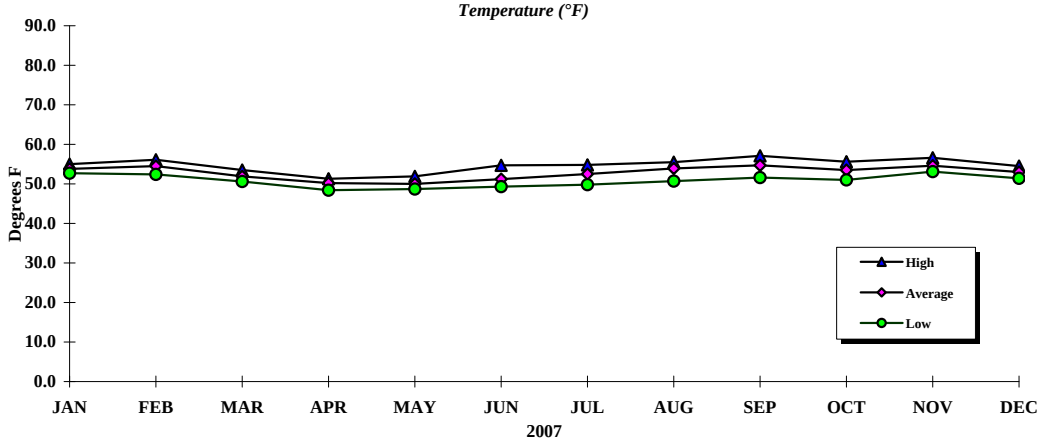
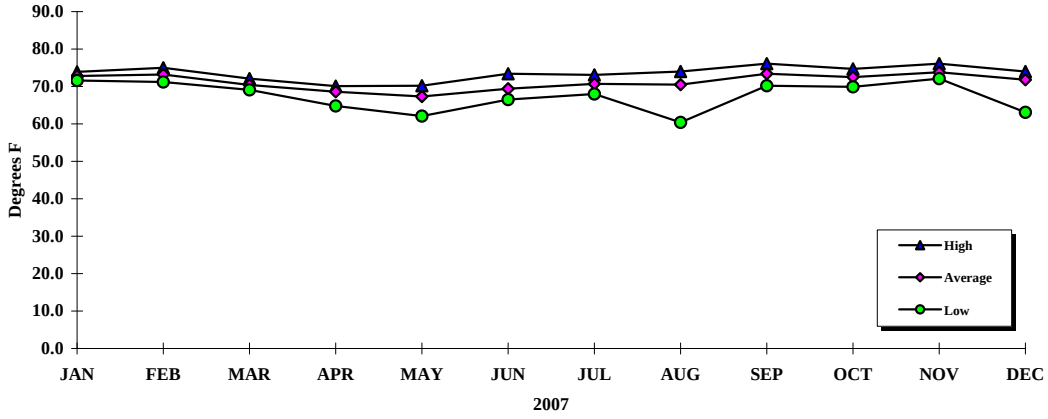
DISCHARGE 001 INFLUENT

Temperature (°F)



DISCHARGE 001 EFFLUENT

Temperature (°F)



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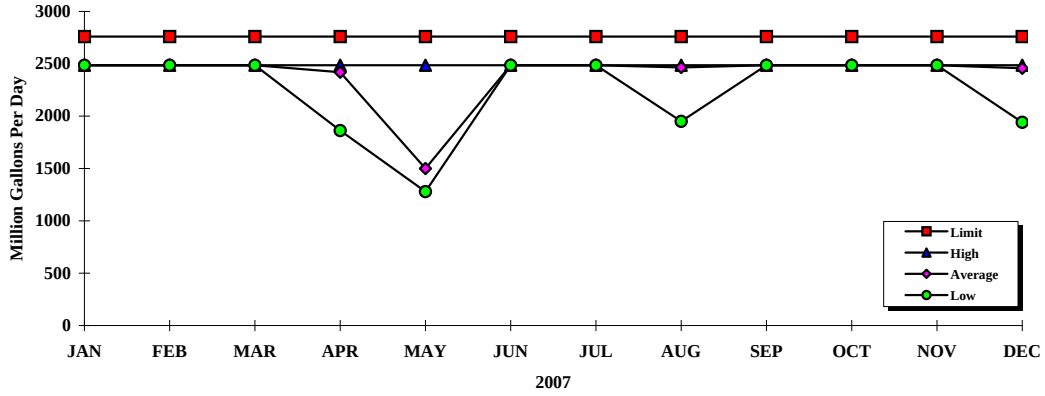
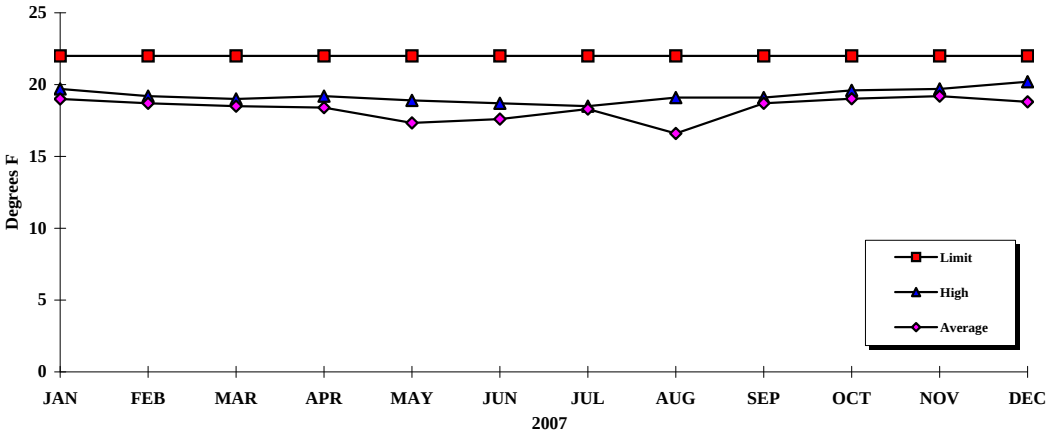
DISCHARGE 001 EFFLUENT
Flow (MGD)



DISCHARGE 001 EFFLUENT
Monthly Delta T (°F)



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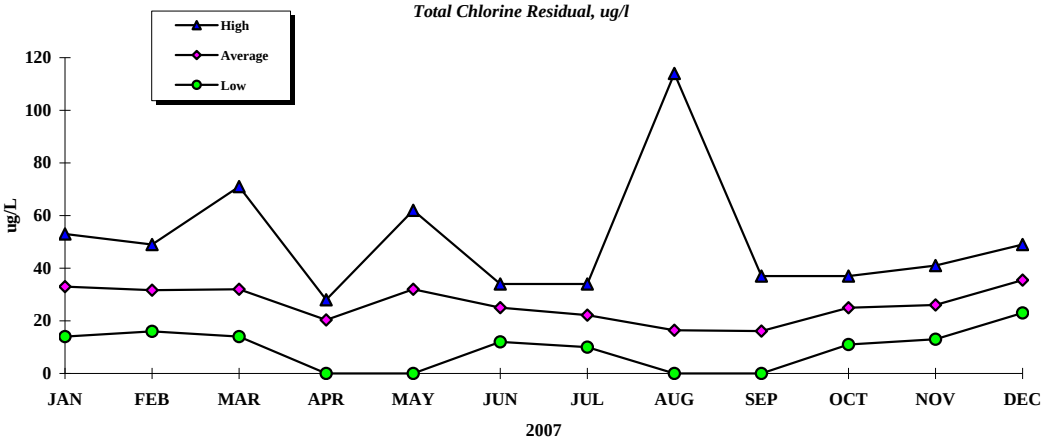
DISCHARGE 001

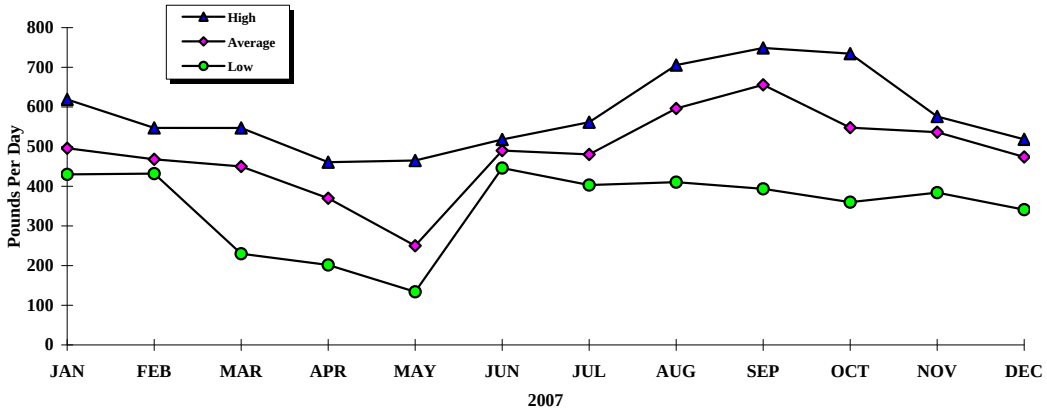
Total Chlorine Residual, ug/l



Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001

Total Chlorine Used, pounds per day



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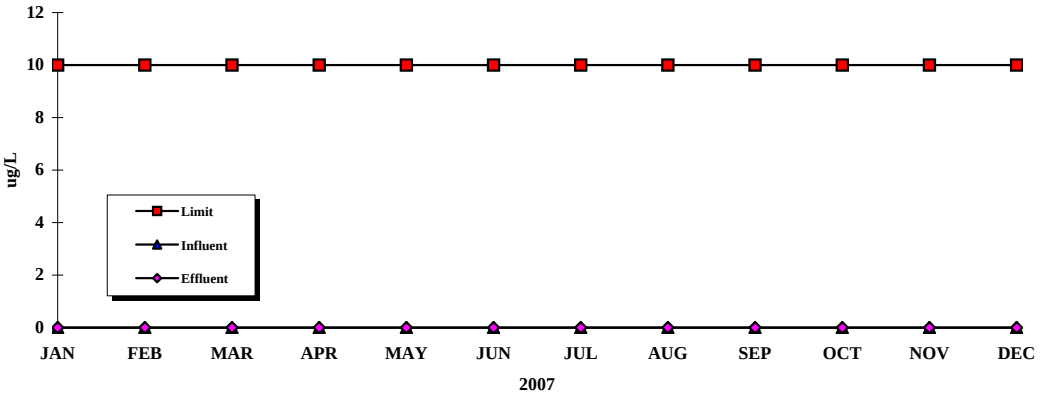
DISCHARGE 001

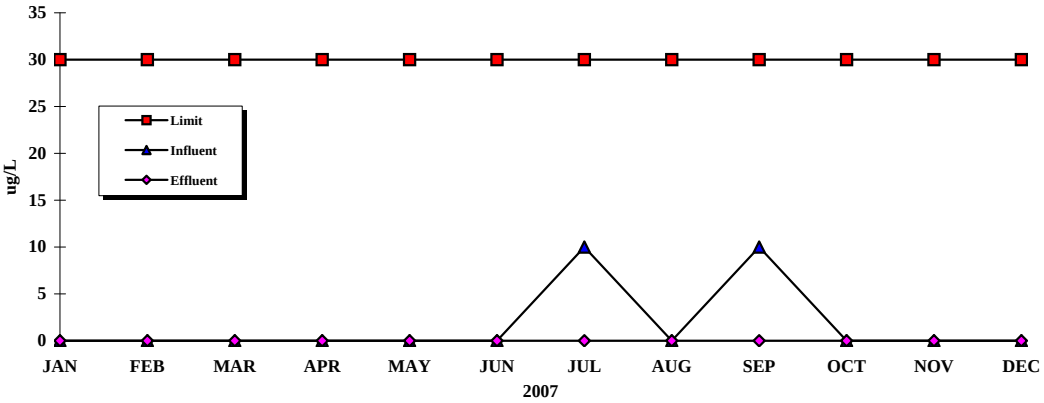
Copper (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Copper is 50 ug/l.

DISCHARGE 001

Nickel (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Nickel is 100 ug/l.

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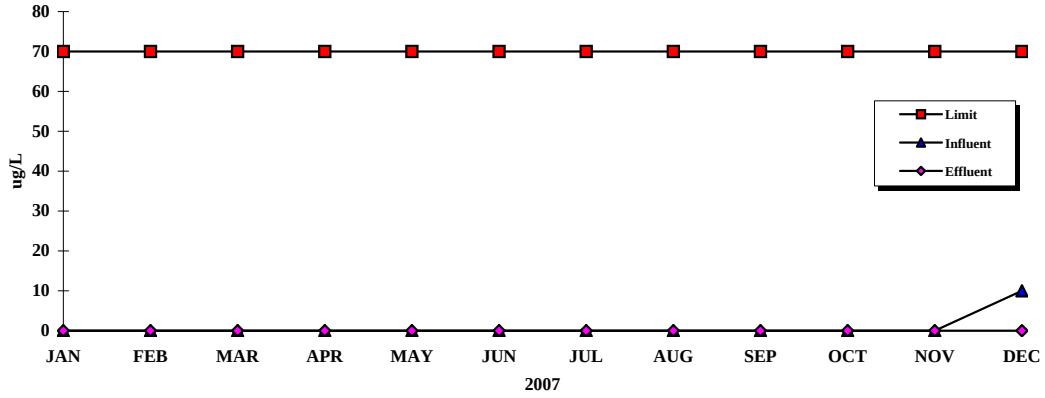
DISCHARGE 001

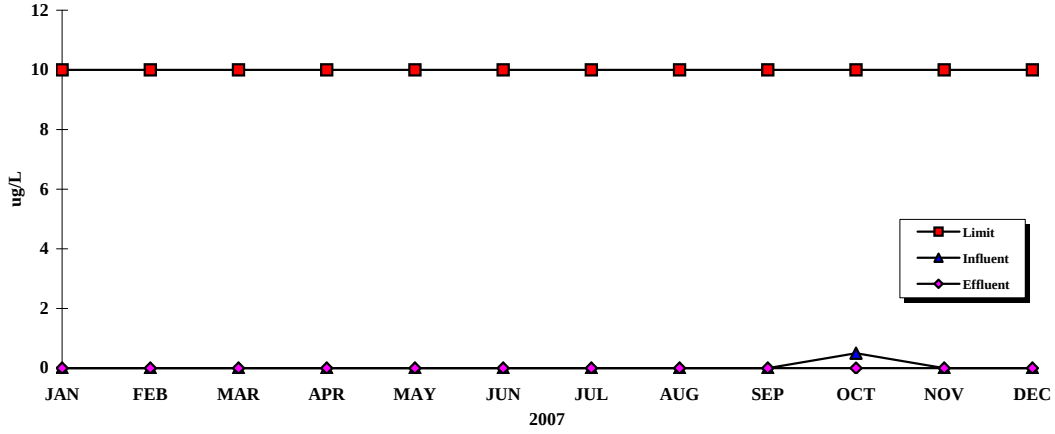
Zinc (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001

Chromium (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit is plotted on this chart. The daily maximum limit for chromium is 40 ug/l.

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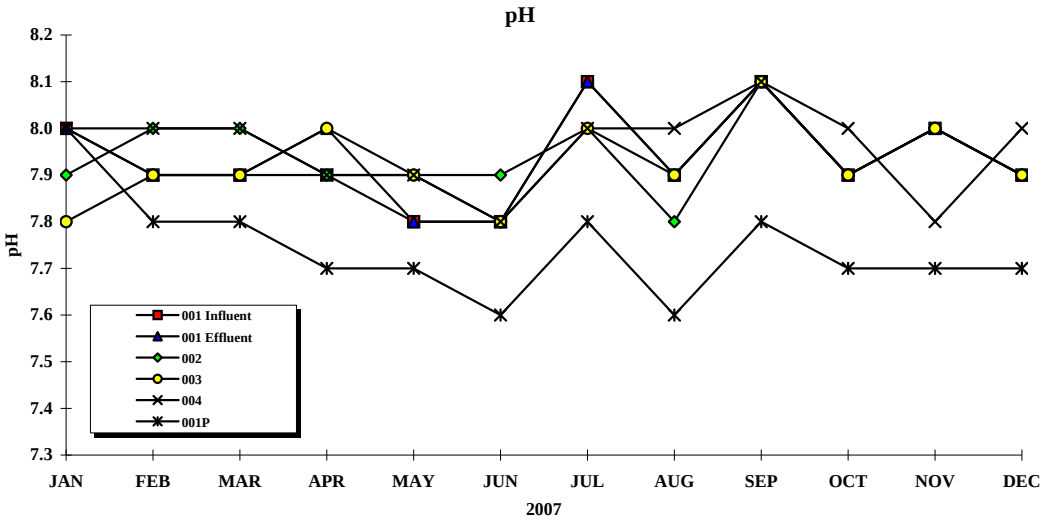
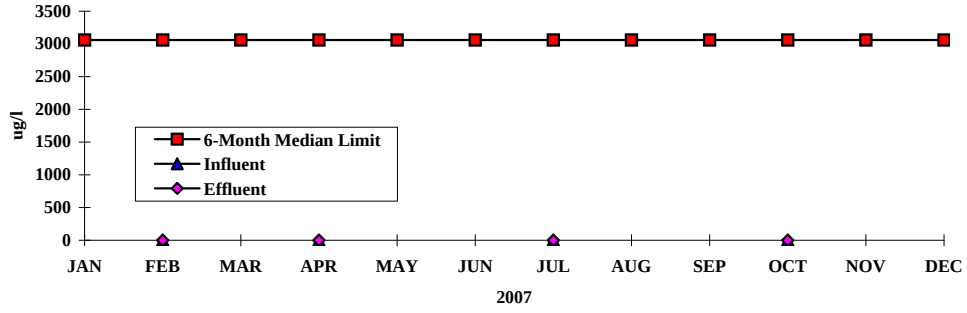


Note: Several data points on this chart overlap.

Discharge 001
Ammonia (as N, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
Influent and Effluent values overlap at four points on this plot.

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at the
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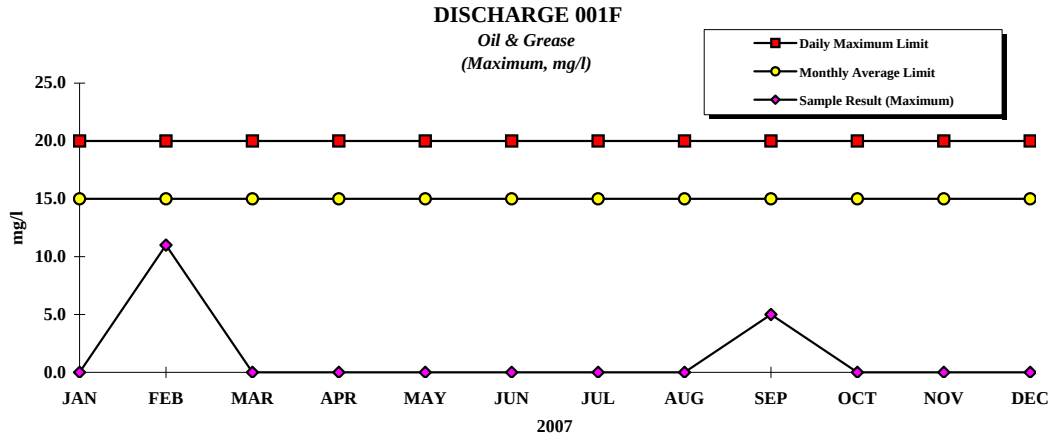
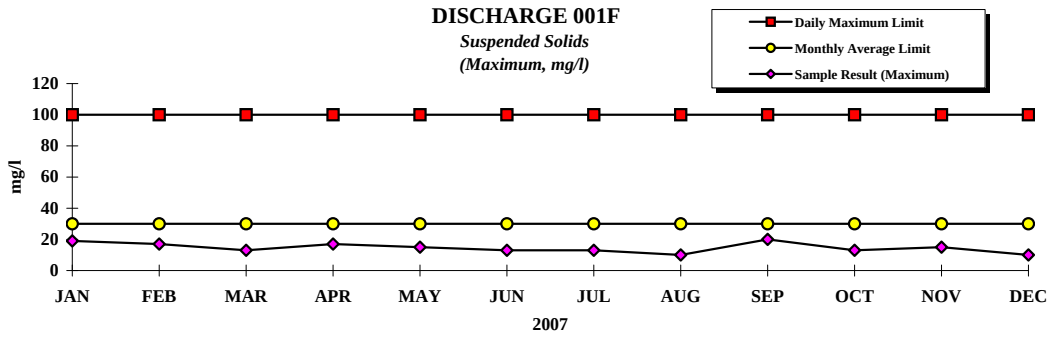
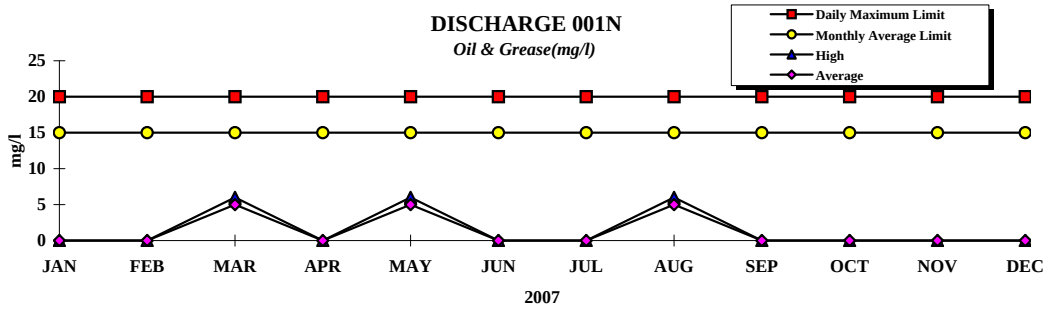


Note: Values plotted at zero were below the reporting limit.



Note: Maximum values are plotted.



Note: Values plotted at zero were below the reporting limit.
High, low and average values overlap at eleven points on this plot.

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at the
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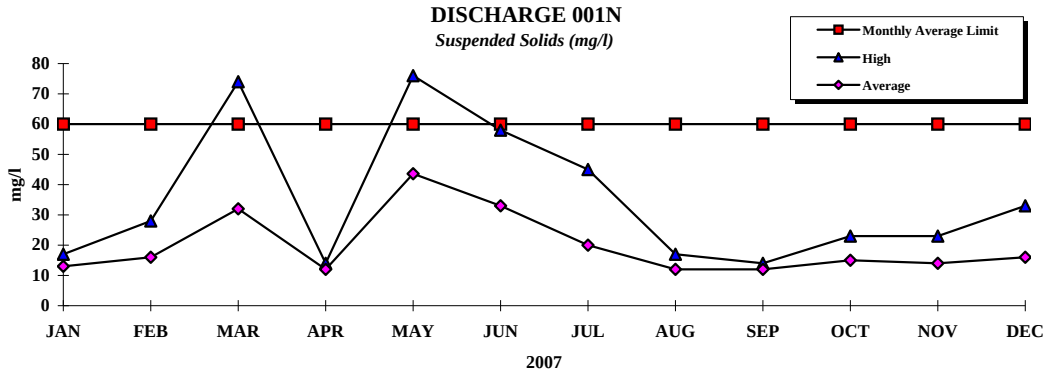

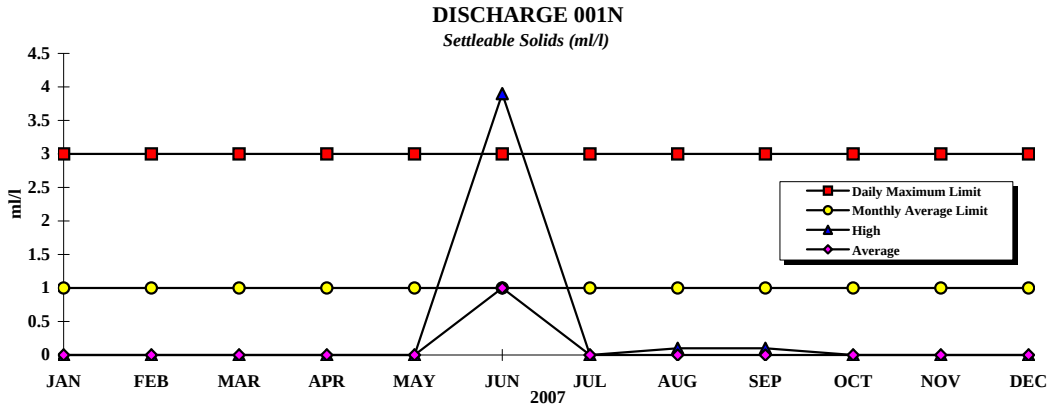

Note: Values plotted at zero were below the reporting limit.
High, average, and low values overlap at ten points on this plot.

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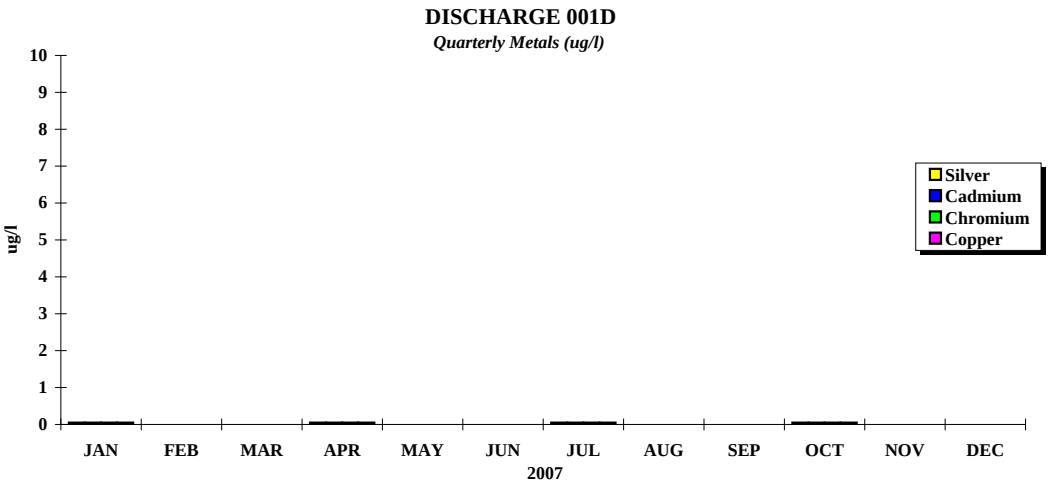
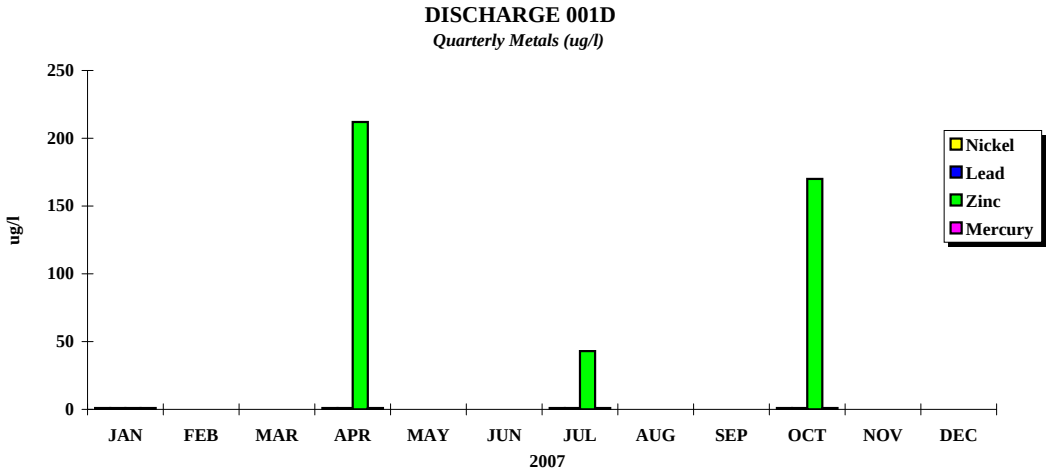


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

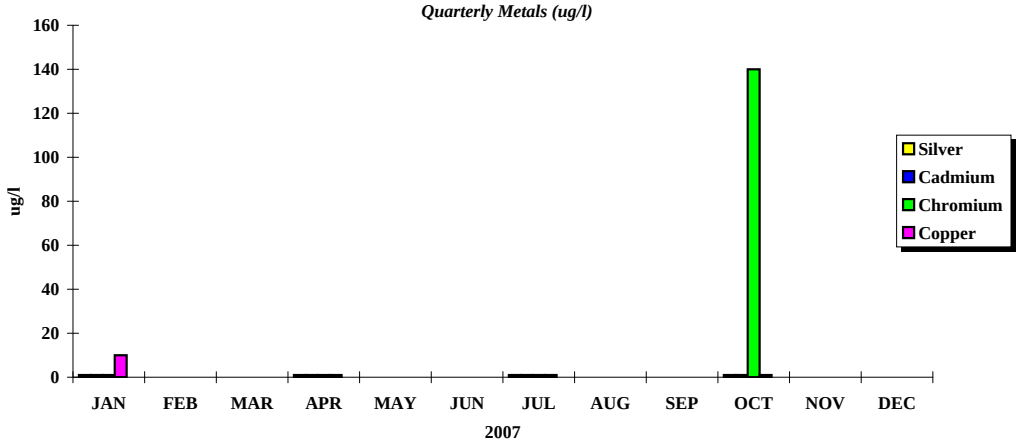


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2007 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001F

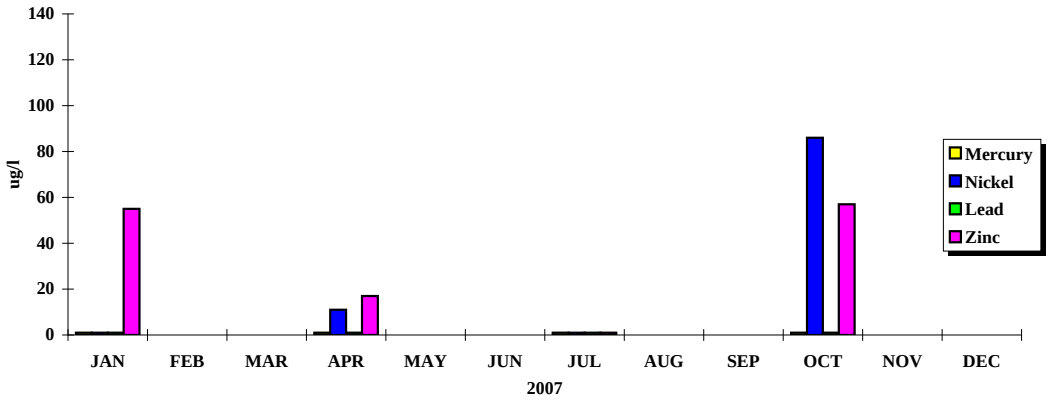
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001F

Quarterly Metals (ug/l)

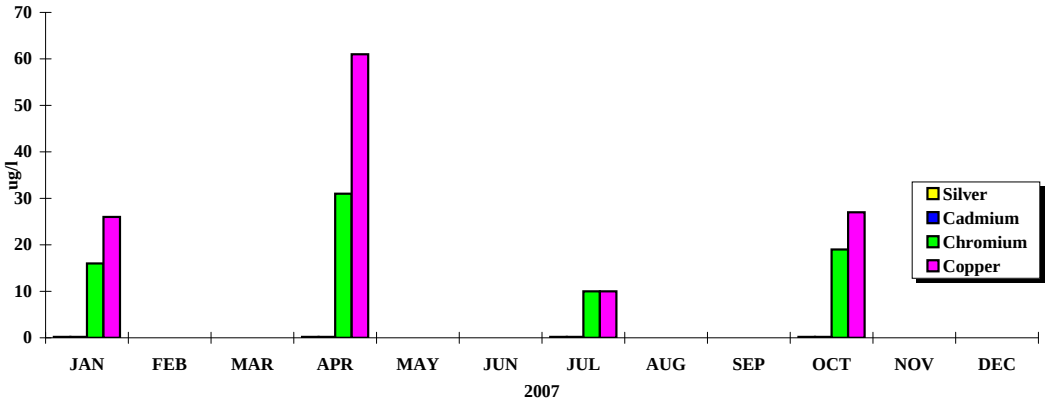


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

2007 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

DISCHARGE 001H

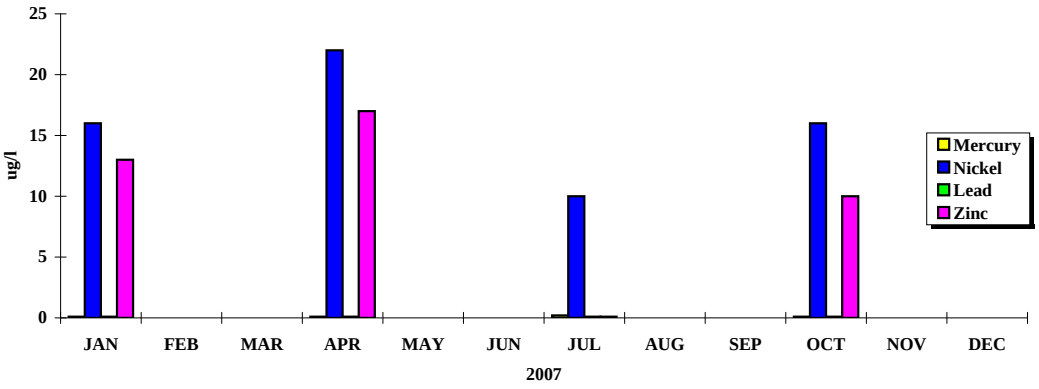
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001H

Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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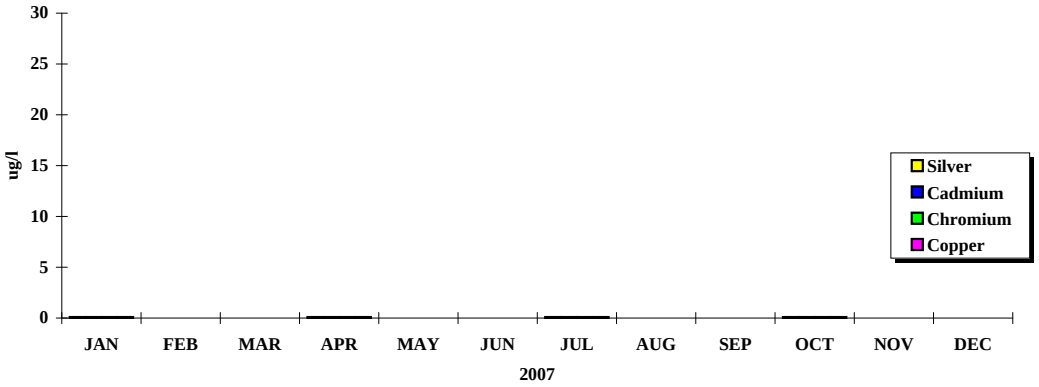
DISCHARGE 001L

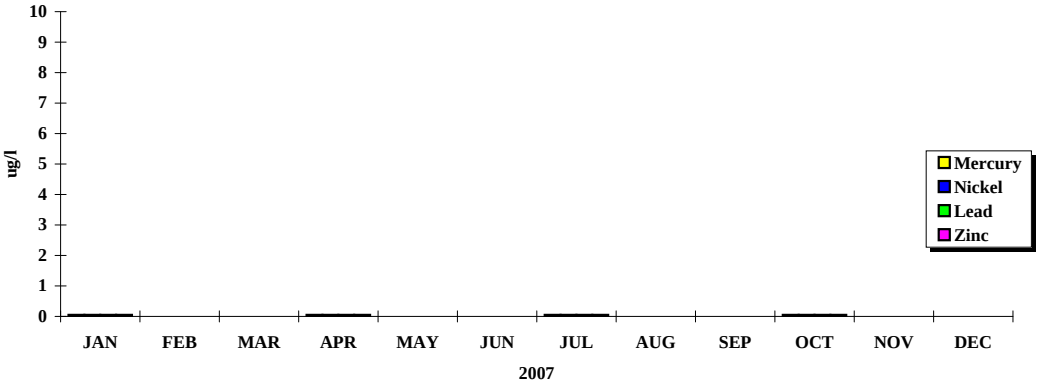
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001L

Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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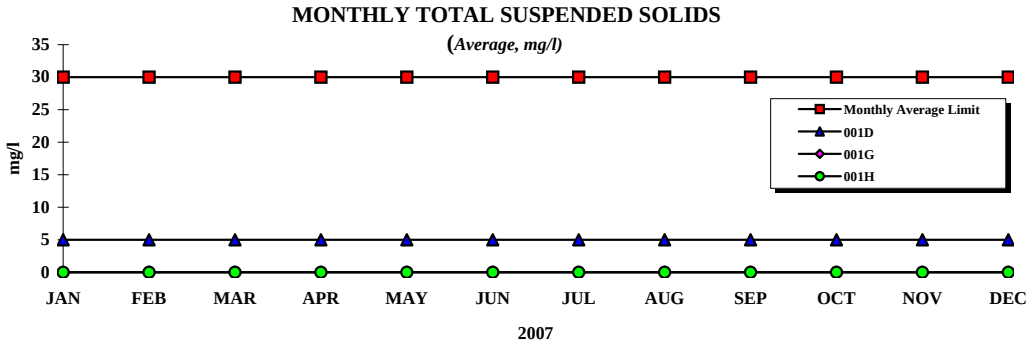
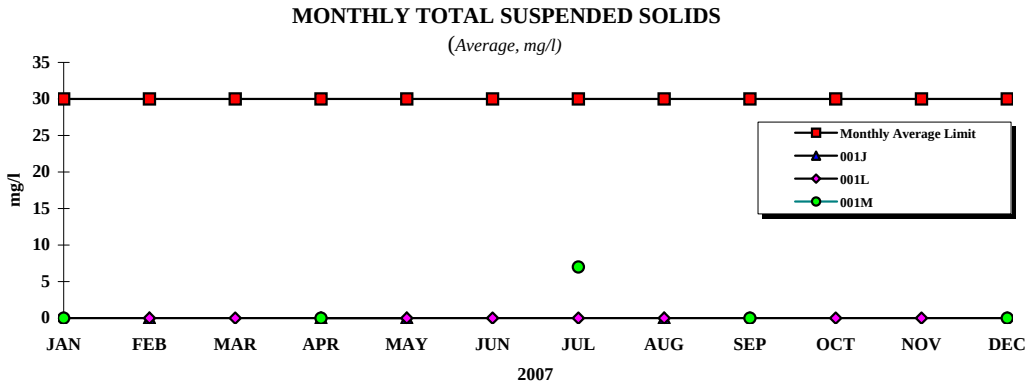
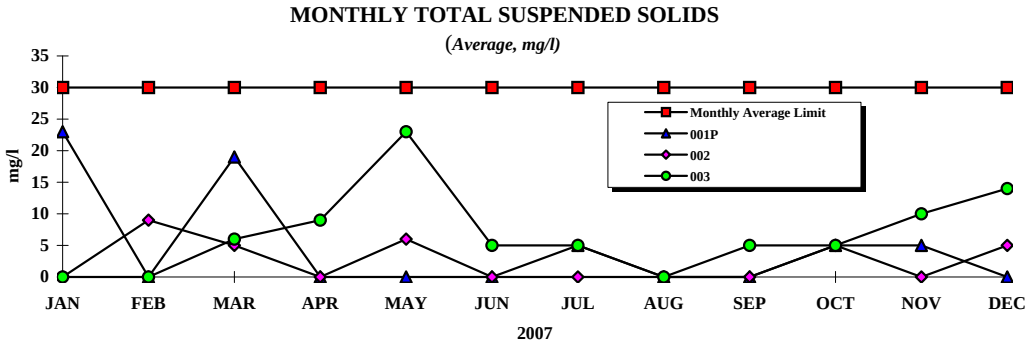


Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

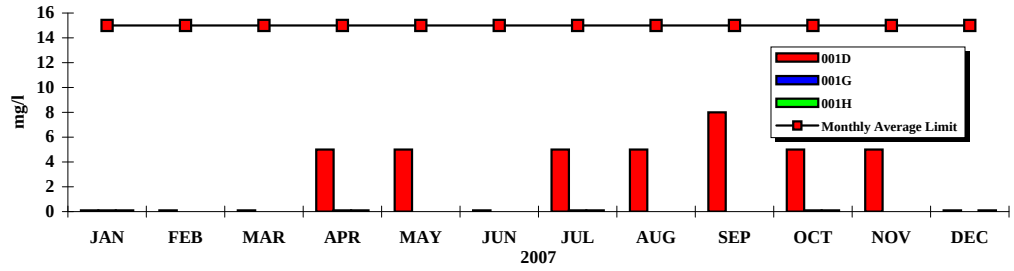


Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

2007 Annual Summary Report on Discharge Monitoring at the Diablo Canyon Power Plant

QUARTERLY OIL & GREASE

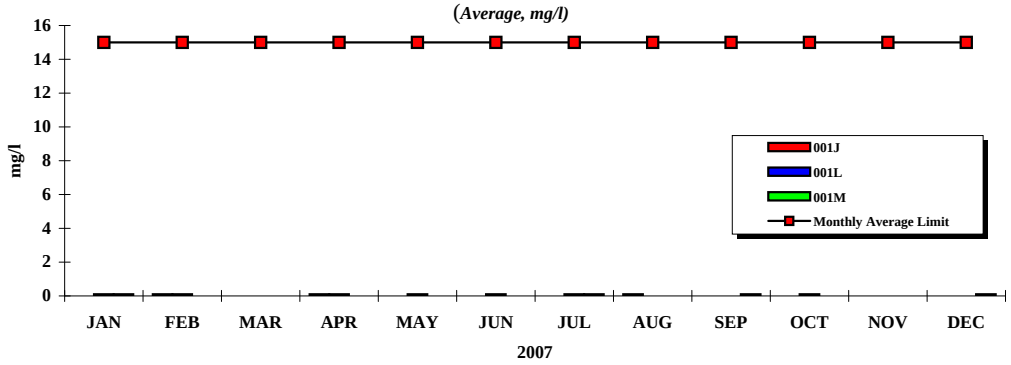
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit. Less than values are plotted at the value.

QUARTERLY OIL & GREASE

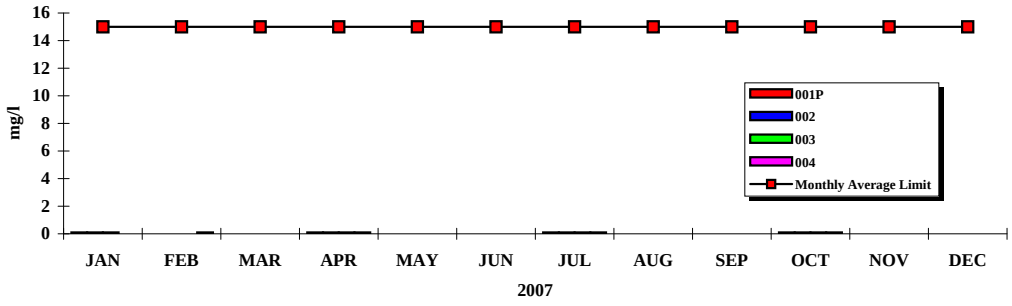
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

QUARTERLY OIL & GREASE

(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

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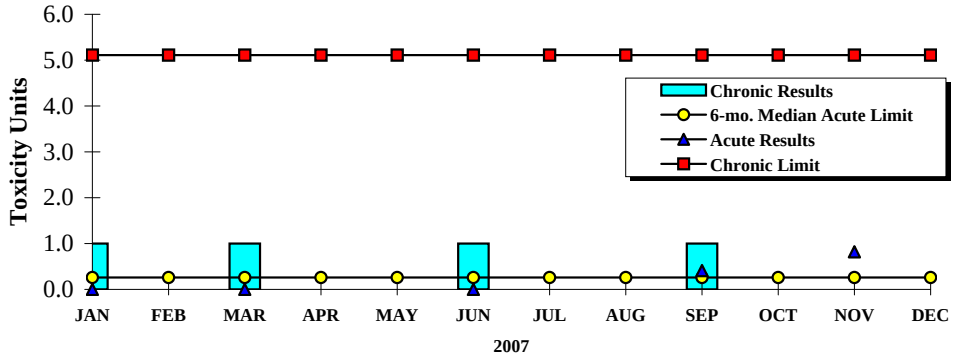
ACUTE AND CHRONIC TOXICITY



Permit Monitoring Information
2006

Annual NPDES Discharge Self Monitoring Report (DSMR) Text, Tabular, and Graphical Data Sections

27 Pages

2006 Annual Summary Report on Discharge Monitoring
at the
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OVERVIEW

A. This annual summary report follows the format used in quarterly monitoring reports. Analytical results below the respective Reporting Limit (ND or non-detect) are plotted as a "zero" value in accordance with ELAP guidance. Less-than results are typically reported to express an average of values that include non-detects and at least one positive result. These less-than results are plotted conservatively at the value. During 2006, discharges occurred from all discharge paths except 001I, 001K, and 017.

B. California Ocean Plan Table B substances that were not analyzed for have not been added to the discharge stream. The substances listed in Table B in the 1990 Ocean Plan were each analyzed for and reported in the permit renewal application for Diablo Canyon Power Plant (DCPP) submitted in October 1994 and January 2001. There have been no changes in the activities conducted at the plant that would have significantly affected the results previously reported in the above referenced documents.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. Monitoring Data

a. Appendix 1 provides a list of the discharge path names for ease of reference. Appendix 2 contains monitoring data in tabular form. Appendix 3 contains monitoring data in graphical form.

b. Annual oil and grease analyses were performed in November on Stormwater/Yard Drain Discharges 005, 008, 009, 013, and 015. Results were less than 5 mg/l for discharges 005, 009 and 013. Results for discharges 008 and 015 were both 6 mg/l. No discharges that resulted in adequate sample quantities occurred from 016 and no discharge occurred from 017 during 2006.

c. In November, Discharge 001D (Liquid Radioactive Waste Treatment System) annual grab samples for lithium, boron, and hydrazine were collected and analyzed. The results were less than 0.010 mg/l, 118 mg/l, and 0.005 mg/l, respectively.

2. Facility Operating and Maintenance Manual

Pacific Gas and Electric Company (PG&E) maintains a multiple volume Plant Manual (manual) at DCPP that contains procedures used for operation and maintenance activities at the plant, including those activities that relate to wastewater handling, treatment, sampling, analysis and discharge.

Plant procedures are prepared and reviewed by DCPP Staff and approved by DCPP Management. DCPP conducts biennial internal audits that review NPDES Plant procedures contained in the manual. Ongoing reviews of Plant procedures are conducted to assure that the manual remains valid, current, and complete for the facility.

3. Laboratories Used to Monitor Compliance

The following laboratories were used during 2006 for monitoring compliance. They are certified under the appropriate agencies for the test/analyses they perform. As part of the on-going annual certification process, these laboratories take part in, and have passed, annual quality performance evaluation testing.

a. PG&E Chemistry Laboratory, DCPP, Avila Beach, California (Lab Certification # CA01036)

b. Aquatic Bioassay Consultants, Ventura, California (Lab Certification # CA01907)

c. FGL Environmental, Santa Paula, California (Lab Certification # CA00140)

d. Creek Environmental, San Luis Obispo, California (Lab Certification # CA00975)

e. Columbia Analytical Services, Kelso, Washington (Lab Certification # WA00035)

f. SevernTrent Laboratories, Earth City, Missouri (Lab Certification # MO00054)

4. Review of Compliance Record and Corrective Actions

a. Circulating Water Pump Chlorination/Bromination Monitoring

The 2006 quarterly NPDES reports discuss chlorination cycles when discharge monitoring was interrupted. These are listed below with brief descriptions of the cause and corrective action. When these monitoring interruptions occurred, engineering evaluations (approved by the CCRWQCB January 13, 1994; PG&E Letter No. DCL-94-002) were performed. Detailed descriptions of these evaluations are included in the quarterly reports. Evaluations concluded that discharge chlorine limits were not exceeded during these events. An apparent exceedence occurred in December 2006 unrelated to an unmonitored condition (reference section 4.j.).

Date	Chlorination Cycle Monitoring interruptions	Cause	Corrective Action
12/30/05 to 01/05/06	Unit 1 28 readings	Sample flow restricted by storm-related debris	Debris removed and monitor recalibrated.
01/12/06	Unit 1 1 reading	Monitor vendor-related calibration error.	Calibration corrected.
01/12/06 to 01/18/06	Unit 1 and Unit 2 72 readings	Cross-tie in sample piping left open after weekly flush.	Valve closed. Procedure revised to minimize probability of recurrence.
03/27/06 to 03/30/06	Unit 1 21 readings	Air supply to monitor mixing chamber restricted by biological growth.	Air supply to mixing chamber restored.
05/18/06 to 05/25/06	Unit 1 41 readings	Sample flow restricted due to biological fouling.	Fouled section of instrument replaced
05/19/06 to 05/25/06	Unit 2 47 readings	Calibration problem during post-outage start-up.	Monitor recalibrated.
07/20/06 to 07/27/06	Unit 1 35 readings	Plankton fouling of the sensor.	Replaced monitor flow block, and increased piping flush frequency.
08/10/06	Unit 1 – 2 readings	Low reagent	Replaced reagent
08/10/06	Unit 2 – 1 reading	Calibration problem	Recalibrated monitor
10/19/06	Unit 2 – 1 reading	Air entrained in sample line during calibration	Recalibrated monitor

b. Closed Cooling Water Releases

During 2006, maintenance activities that required draining of closed cooling water systems were performed and are summarized below. PG&E received concurrence from the CCRWQCB in response to letters dated July 19, 1995 (PG&E Letter DCL-95-156), May 23, 1996 (PG&E Letter DCL-96-522), and May 19, 1997 (PG&E Letter DCL-97-533) regarding the use of glutaraldehyde and isothiazolin to control microbiological growth and corrosion in DCPP's closed cooling water systems. Any drainage

from these systems is discharged at a flow-rate such that the chronic toxicity level is below the "No Observable Effect Concentration" (NOEC) at NPDES Discharge 001. The volumes of cooling water drained in 2006 from the component cooling water (CCW), intake cooling water (ICW), and service cooling water (SCW) systems are presented below. The glutaraldehyde and isothiazoline concentrations presented in the table below are system concentrations, not concentrations at the point of discharge to receiving water.

Date	System	Volume (gal)	Glutaraldehyde (mg/l)	Isothiazoline (mg/l)	Reason & Comment
02/22/06	Unit 1 SCW	15,151	67	0.4	Routine maintenance
02/23/06	Unit 1 SCW	17,850	67	0.4	Routine maintenance
03/01/06	Unit 1 ICW	3,100	224	4.1	Routine maintenance
04/18/06	Unit 2 ICW	1,150	224	2.7	Routine maintenance
05/04/06	Unit 2 SCW	24,000	140	4.4	Routine maintenance
07/20/06	Unit 1 SCW	33,000	100	3.2	Routine maintenance
08/17/06	Unit 1 ICW	3,300	201	2.8	Routine maintenance
09/08/06	Unit 2 SCW	33,000	157	6.0	Routine maintenance
09/15/06	Unit 1 SCW	60	55	1.0	Routine maintenance
09/19-20/06	Unit 1 CCW	180,300	215	0.0	Routine maintenance
10/05/06	Unit 2 CCW	182,100	196	0.0	Routine maintenance

c. Injections of sulfur hexafluoride (SF6)

Injections of sulfur hexafluoride (SF6) into DCPP's condensers were performed to detect saltwater leaks during this year. CCRWQCB's Sorrel Marks concurred during conversations held in May 1996 that periodic use of SF6 would not increase DCPP's probability of exceeding NPDES permit limitations. Injections during 2006 are summarized below.

Date	Number of Injections	Duration (sec)	Injection Rate of SF6 (Standard Cubic Feet per Minute)	Total SF6 Injected (Cubic Feet)
01/14/06	7	30	10	35
10/16/06	2	30	10	10
10/30/06	12	30	5	30
11/01/06	11	30	10	55

d. January

On January 12, 2006, chemical drain tank 0-2 (CDT 0-2) was discharged. A sample from the tank was analyzed using hexane extraction to measure oil and grease content. The result was 26 mg/L of hexane-extractable material. This value apparently exceeded the monthly and daily limits (15 mg/L and 20 mg/L, respectively) for oil and grease for discharge pathway 001D. However, the result is believed to be a false positive due to the presence of liquid scintillation (LS) solution in the CDT and the sample. Prior to extraction, it was identified that the sample had a whitish tint. This tint is believed to have been caused by a small amount of waste LS solution that had entered the tank during rinsing of residue from bulk solution containers before disposal. The practice of segregating the waste LS solution for separate disposal has been used since May 2005 when LS solution was found to give false positive results from samples extracted with hexane to measure oil and grease. Five CDT samples had been extracted using the hexane method subsequent to May 2005, with no results greater than 9 mg/L, and the improved laboratory processes for managing LS solution were believed to have eliminated the potential for biased positive results. However, rinsing of empty bulk containers was not specifically addressed, and the 26 mg/L value is believed to be a result of this practice. Permanent postings were subsequently installed in the Chemistry laboratory to prohibit rinsing of any container that contained LS solution into the CDTs. During the remainder of the quarter, eight follow-

up samples were taken and analyzed using the hexane extraction method. The highest result of these follow-up samples was 5.1 mg/l. Regional Water Control Board staff were notified on January 19, 2006 regarding the CDT 0-2 issue, and correspondence regarding the LS solution was forwarded on February 21, 2006.

e. March

During routine preventative maintenance on March 29, 2006, the discharge temperature recorder for Unit 2 was found to be high out of tolerance. The recorder was adjusted and retested. Subsequent data was within specifications. A review of historical temperature data indicated that the recorder may have been out of tolerance since the end of the Unit 1 refueling outage (early December 2005). Since that time Unit 2 discharge temperatures have averaged about 2 degrees F above Unit 1 values. Therefore, actual discharge temperatures and differential temperatures were slightly lower than the values that had been reported for December 2005 and for January, February and March of 2006. The reported values are slightly inaccurate in a conservative direction, therefore there were no exceedences of NPDES temperature limits.

f. April

On April 17, 2006 condensate from Unit 2 was discharged overboard via point 001J during shut down of the unit for routine maintenance. The monthly samples for suspended solids and oil and grease from this discharge were missed due to human error on the part of the technician responsible for collection of the samples. The cause of this error has been evaluated, and implementation of comprehensive measures to prevent recurrence is in progress. The daily maximum concentration limits for suspended solids and oil and grease discharged from 001J are 100 mg/L and 20 mg/L, respectively. Samples were taken from Unit 2 001J at the next available opportunity on May 20, 2006. Analysis results were below the 1.4 mg/L detection limit for oil and grease, and less than the 5 mg/L reporting limit for suspended solids. There is no operational reason to believe that analysis results would have been higher if samples had been taken from the water discharged on April 17, 2006.

g. May

Starting on May 17, 2006 firewater was inadvertently discharged via 001E due to a leaking valve. The firewater was being used to cool the service cooling water heat exchanger. The butterfly valve on the heat exchanger was not completely sealing off flow, and an estimated 15 gpm of firewater leaked past the valve for 72 hours. Total volume discharged was approximately 64,800 gallons over the 72 hours. Water that is normally discharged via 001E is pure water with corrosion inhibitors and biocides added. The firewater was clean freshwater with no corrosion inhibitors and no biocides. Firewater is a routine component of 001 discharge.

h. July

On July 27, 2006 a pipe leading from the seawater reverse osmosis unit burst along the roadway leading up to the raw water storage reservoirs, sending freshwater into Discharge Path 006. Upon discovery, active measures were taken to prevent erosion and sediment from entering the storm water drainage ditch and ocean outfall. Flow was stopped and the pipe was repaired by the end of the day on July 28. It is estimated that a maximum of 2,000 gallons of freshwater was released. The description in the NPDES permit includes only rainwater for Discharge 006. Even though the released water was pure freshwater, technically it is not rainwater and Regional Water Quality Control Board staff were notified on July 28, 2006.

i. October

In late October and early November 2006, DCPP replaced a check valve in the outfall pipe of discharge 001H, discharge for the High Conductivity Tank (HCT). This required re-routing the 001H waste water (after normal filtration and neutralization processes) to the dirty side of the turbine building

sump. From there the water flowed through the oily-water-separator and overboard via 001F. This process did not change the character of HCT waste water. The HCT discharge (001H re-routed through the 001F outfall) continued to comply with NPDES permit limitations. This temporary re-route was discussed with CCRWQCB staff prior to initiating the work and written concurrence for the re-route was received on October 18, 2006. As requested by CCRWQCB staff, volumes of water discharged through this temporary re-route were documented and are listed below.

10/25/06	22,732 gallons
10/31/06	22,156 gallons
11/02/06	22,156 gallons
Total:	67,044 gallons

j. December

On December 15, 2006 during the 4:00 AM routine chlorination of the circulating water tunnels for Unit 1, the discharge chlorine monitor momentarily spiked up from a steady reading of 46 µg/L to an instantaneous peak of 97 µg/L, then immediately dropped back down to the 46 µg/L level. The total residual oxidant instantaneous maximum for Discharge 001 per DCPP NPDES Permit Order 90-09 is 200 ug/L. However, the calculated discharge limit in accordance with the California Ocean Plan is 89 µg/L. CCRWQCB staff were notified of the incident by telephone on December 15, 2006. Subsequent investigation determined that the most probable cause of the event was an electrical disturbance in the discharge monitor 120-Volt AC power supply. The Unit 1 discharge monitor was inspected following discovery of the recorded spike and found to be operating normally and within calibration limits. Unit 1 chemical injection cycles subsequent to the 4:00 AM treatment displayed expected residual chlorine concentrations in the 40-50 ug/L range. Condenser waterbox chlorine monitors recorded normal oxidant curves during the 0400 treatment with no indications of a chemical concentration spike ruling out momentary excess chlorine injection at the seawater system intake. The post condenser dechlorination system was found to be operating within normal parameters with no indications of chemical flow restriction, feed pump volume or pressure loss, significant power supply disruption, or any other evidence of equipment operational anomaly. Furthermore, the chemical injection system is designed to trip-off in the event of a significant equipment fault. No system trip occurred. In response to this event, the electric power system to the discharge monitors and associated recording equipment is being equipped with an in-line uninterruptible power supply (UPS) reserve battery unit with continuous voltage and amperage output conditioning.

B. Monitoring of Receiving Water

1. Ecological Studies at Diablo Canyon

Marine ecological monitoring was continued during 2006 under the Receiving Water Monitoring Program (RWMP) as requested in a letter from the Central Coast Regional Water Quality Control Board (CCRWQCB) dated December 9, 1998, and as detailed in a letter from PG&E dated January 8, 1999 (DCL-99-503). This program includes tasks from the Ecological Monitoring Program (EMP) with additional stations and increased sampling frequencies. This program replaces the EMP and the Thermal Effects Monitoring Program (TEMP). Several one-year-only tasks outlined in the above letters were completed in 1999 and were not requested to be performed in 2006. Results of 2005 RWMP data were submitted to the CCRWQCB on April 28, 2006. A table in Appendix 4 summarizes requirements and completed tasks for 2006. The second replicate of the fourth survey of Fish Observation Transects was completed for only three out of twelve stations due to unfavorable ocean conditions from December 2006 through January 2007.

2. In Situ Bioassay

Results of the Mussel Watch Program are reported to the CCRWQCB directly by the California Department of Fish and Game in their periodic report for this program.

C. Sodium Bromide Treatment Program

DCPP continued its integrated sodium bromide and "foul release coating" strategy to control macrofouling in the Circulating Water System (CWS). The treatment program consists of six 20-minute injections (at four hour intervals) of a blend of generic sodium bromide and sodium hypochlorite into DCPP's seawater intake conduits. Each injection attempts to achieve a target concentration of 200 parts per billion (ppb) Total Residual Oxidant (TRO) at the inlet waterbox of the main condensers. Discharge TRO, measured at the plant outfall, remained below NPDES limitations, except for one reading in December (reference section 4.j). Typically, discharge values were between 20 ppb to 50 ppb. In conjunction with the chemical treatment, untreated portions of the cooling water system were previously painted with a non-toxic "foul release coating" to reduce or prevent attachment of fouling organisms.

Both conduits of Unit 1 were treated throughout the first three quarters of 2006 with simultaneous injections of sodium bromide and sodium hypochlorite six times a day. There were brief interruptions in late July, August, and September due to a flow alarm system trip, depletion of sodium bromide chemical stock due to supply delays, and piping maintenance activities. Both conduits of Unit 1 continued the simultaneous injection treatment through October 2006. Sodium bromide injections were shut down in early November in preparation for a Unit 1 tunnel cleaning. Sodium hypochlorite injections to the Unit 1 main conduits were maintained until November 21st when the Unit 1 injection system was secured for the tunnel cleaning. Simultaneous injections of sodium bromide and sodium hypochlorite were restarted in late November after completion of the tunnel cleaning. There was one other brief interruption in the Unit-1 treatment schedule in early December when a Unit 2 circulating water pump automatically shut down.

Both conduits of Unit 2 were treated throughout the first quarter of 2006 with simultaneous injections of sodium bromide and sodium hypochlorite six times a day until late March when sodium bromide injections were turned off in anticipation of the 2R13 refueling outage. Microfouling injections of sodium hypochlorite continued six times a day until mid-April when all Unit 2 injections were terminated for the start of 2R13. Simultaneous injections of sodium bromide and sodium hypochlorite six times a day were initiated shortly after the middle of May once the circulating water pumps were returned to service. This treatment schedule continued throughout the remainder of 2006 with brief interruptions in late July, August, September, and mid-December due to a flow alarm system trip, depletion of sodium bromide chemical stock due to supply delays, piping maintenance activities, storm wave induced condenser cleaning, a circulating water pump 2-1 shut down, and a tunnel cleaning for the 2-1 conduit.

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DISCHARGE 001

	TEMPERATURE (DEG F)								FLOW (MGD)		
	INFLUENT			EFFLUENT			DELTA T				
Month	high	low	avg	high	low	avg	high	avg	high	low	avg
JAN	57.0	52.6	54.5	77.1	72.1	74.2	20.1	19.7	2486	2486	2486
FEB	55.1	51.3	52.9	74.8	70.6	72.5	19.9	19.5	2486	2486	2486
MAR	54.9	50.1	52.1	74.8	70.0	72.0	20.3	19.8	2486	2486	2486
APR	56.5	50.7	53.5	75.5	68.7	72.3	19.4	18.8	2486	1239	1927
MAY	55.7	49.3	51.6	71.3	62.7	68.7	19.1	17.1	2486	1239	1624
JUN	53.5	49.9	51.7	72.0	67.5	70.2	18.9	17.9	2486	2486	2486
JUL	58.5	50.3	53.9	77.1	68.8	72.5	18.8	18.6	2486	2486	2486
AUG	58.6	53.1	55.6	77.2	71.8	74.1	19.0	18.5	2486	2486	2486
SEP	58.7	52.4	55.8	77.5	71.2	74.7	19.5	18.8	2486	2486	2486
OCT	59.1	55.2	57.6	78.2	74.3	76.6	19.4	19.0	2486	2486	2486
NOV	58.5	53.9	55.5	77.6	73.2	74.6	20.0	19.2	2486	1899	2430
DEC	58.3	53.4	55.5	75.8	71.2	73.7	19.4	18.2	2486	1732	2324
limit:		-			-		22		2760		

The INFLUENT and EFFLUENT "high" and "low" temperture values correspond to the highest and lowest daily average value for that month. The INFLUENT high and low temperature does not necessarily correspond to the same day as the EFFLUENT high and low temperature for that month. The "avg" temperature for INFLUENT and EFFLUENT is the average for the entire month. The Monthly Delta T "high" is the highest Delta T for a day of the month based on daily average INFLUENT and EFFLUENT temperature values. The "Avg" temperature is calculated from INFFLUENT and EFFLUENT monthly avg values.

DISCHARGE 001

	TOTAL RESIDUAL CHLORINE (daily max. ug/l)			TOTAL CHLORINE USED (lbs/day)		
Month	high	low	avg	high	low	avg
JAN	64	<10	51	605	360	465
FEB	60	<10	28	461	360	392
MAR	60	<10	34	504	353	404
APR	42	<10	25	547	187	316
MAY	55	<20	28	475	173	283
JUN	66	13	31	533	403	484
JUL	73	<10	41	667	446	538
AUG	73	<10	35	864	619	745
SEP	60	<10	20	922	511	686
OCT	87	<10	40	922	677	747
NOV	87	<7	37	734	288	533
DEC	97	7	36	655	410	573

Note that the residual chlorine limits in Permit CA0003751, Order 90-09, is a daily max of 200 ug/l and includes a time-based limit (per the Ocean Plan) which depends on the length of the respective chlorination cycle.

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DISCHARGE 001

METALS (monthly avg. ug/l)

	CHROMIUM		COPPER		NICKEL		*ZINC	
Month	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
JAN	ND(10)	ND(10)	ND(10)	ND(10)	10	11	ND(10)	ND(10)
FEB	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
APR	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
MAY	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
JUN	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	59	ND(10)
JUL	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
AUG	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
SEP	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
OCT	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
NOV	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
DEC	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
6-month median limit:		10	-	10	-	30	-	70

*** Note: Influent zinc has been historically higher than effluent concentrations.**

DISCHARGE 001
VARIOUS ANNUAL ANALYSES
(monthly avg. ug/l)

Parameter	Influent	Effluent	6-Mo. Med. Effluent Limit
Arsenic	1.5	1.5	30
Cadmium	0.03	0.03	10
Cyanide	ND(10)	ND(10)	30
Lead	0.02	0.05	10
Mercury	ND(0.0010)	ND(0.0010)	0.2
Silver	0.02	0.02	2.9
Titanium	-	10	none
*Phenolic Compounds (non-chlorinated)	ND(11.82)	ND(11.82)	150
**Phenolic Cmpds (chlorinated)	ND(3.36)	ND(3.36)	10
***PCB's	ND(1.59)	ND(1.59)	none

***Reporting limit [ND(11.82)] shown is the sum of individual Reporting Limits for 8 target compounds.**
****Reporting limit [ND(3.36)] shown is the sum of individual Reporting Limits for 6 target compounds.**
*****Reporting limit [ND(1.59)] shown is the sum of individual Reporting Limits for 7 target compounds.**

DISCHARGE 001
AMMONIA (as N) (ug/l)

Month	Influent	Effluent
JAN	ND(200)	ND(200)
FEB		
MAR		
APR	ND(200)	ND(200)
MAY		
JUN		
JUL	ND(200)	ND(200)
AUG		
SEP		
OCT	ND(200)	ND(200)
NOV		
DEC		
6-month median limit:		3060

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MONTHLY pH (averages)

Discharge:	001		002	003	004	001P
Month	Influent	Effluent				
JAN	8.0	8.0	8.0	8.0	8.0	7.8
FEB	7.8	7.8	7.9	7.9	7.9	7.7
MAR	8.0	8.0	8.0	8.0	7.9	7.8
APR	8.0	8.0	8.0	8.0	8.0	7.7
MAY	7.8	7.8	7.8	7.8	7.8	7.6
JUN	7.9	7.9	7.9	7.9	7.9	7.6
JUL	8.0	8.0	7.8	7.8	7.8	7.6
AUG	8.0	8.0	8.0	8.0	8.0	7.7
SEP	8.0	8.0	7.9	7.9	7.9	7.8
OCT	7.9	7.9	8.0	7.9	7.9	7.6
NOV	7.9	7.9	8.0	7.8	8.0	7.7
DEC	8.0	8.0	8.1	8.0	8.0	7.8

DISCHARGE 001F

	GREASE & OIL (mg/l)		SUSPENDED SOLIDS (mg/l)	
Month	high	avg	high	avg
JAN	ND(5)	ND(5)	10	10
FEB	ND(5)	ND(5)	5	5
MAR	ND(5)	ND(5)	13	13
APR	ND(5)	ND(5)	12	11
MAY	ND(5)	ND(5)	6	6
JUN	ND(5)	ND(5)	ND(5)	ND(5)
JUL	ND(5)	ND(5)	11	11
AUG	ND(5)	ND(5)	9	8
SEP	ND(5)	ND(5)	11	10
OCT	ND(5)	ND(5)	22	21
NOV	ND(5)	ND(5)	18	17
DEC	ND(5)	ND(5)	13	12
limit:	20	15	100	30

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average Limits.

DISCHARGE 001N

(Monthly Summary of Weekly Data)

	GREASE & OIL (mg/l)			SUSPENDED SOLIDS (mg/l)			SETTLEABLE SOLIDS (ml/l)		
Month	high	low	avg	high	low	avg	high	low	avg
JAN	ND(5)	ND(5)	ND(5)	33	5	14	ND(0.1)	ND(0.1)	ND(0.1)
FEB	ND(5)	ND(5)	ND(5)	10	ND(5)	7	ND(0.1)	ND(0.1)	ND(0.1)
MAR	ND(5)	ND(5)	ND(5)	18	ND(5)	8	ND(0.1)	ND(0.1)	ND(0.1)
APR	ND(5)	ND(5)	ND(5)	28	12	18	ND(0.1)	ND(0.1)	ND(0.1)
MAY	ND(5)	ND(5)	ND(5)	56	24	40	ND(0.1)	ND(0.1)	ND(0.1)
JUN	ND(5)	ND(5)	ND(5)	10	5	8	ND(0.1)	ND(0.1)	ND(0.1)
JUL	6	ND(5)	<5	27	6	13	ND(0.1)	ND(0.1)	ND(0.1)
AUG	ND(5)	ND(5)	ND(5)	14	7	10	0.1	ND(0.1)	<0.1
SEP	ND(5)	ND(5)	ND(5)	26	8	18	0.1	ND(0.1)	<0.1
OCT	ND(5)	ND(5)	ND(5)	14	6	10	ND(0.1)	ND(0.1)	ND(0.1)
NOV	ND(5)	ND(5)	ND(5)	16	10	13	ND(0.1)	ND(0.1)	ND(0.1)
DEC	ND(5)	ND(5)	ND(5)	20	15	18	ND(0.1)	ND(0.1)	ND(0.1)
limit:	20	-	15	-	-	60	3.0	-	1.0

Note: "high" limits based upon Daily Maximum limits. "avg" limits based upon Monthly Average limits.

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DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu	Ag	Cd	Cr	Cu
JAN	ND(1)	ND(10)	ND(10)	ND(10)	ND(2)	ND(10)	17	42	ND(1)	ND(10)	ND(10)	ND(10)	ND(1)	ND(10)	27	12
FEB	ND(1)															
MAR																
APR	ND(10)	ND(10)	ND(10)	13	ND(10)	ND(10)	16	55	ND(10)	ND(10)	ND(10)	13	ND(10)	ND(10)	15	ND(10)
MAY																
JUN																
JUL	ND(10.0)	ND(10)	ND(10)	ND(10)	ND(10.0)	ND(10)	21	38	ND(10.0)	ND(10)	ND(10)	ND(10)	ND(10.0)	ND(10)	ND(10)	ND(10)
AUG	ND(10)															
SEP																
OCT	ND(10)	ND(10)	ND(10)	10	ND(10)	ND(10)	20	30	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	18
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites. 001F analyses performed quarterly on a composite of weekly samples.

DISCHARGE 001D, H, L, F, METALS (avg. ug/l)

	001D				001 H				001L				001F			
Month	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn	Hg	Ni	Pb	Zn
JAN	ND(0.2)	ND(10)	ND(10)	67	ND(0.2)	17	ND(10)	10	ND(0.2)	ND(10)	ND(10)	<10	ND(0.2)	19	ND(10)	22
FEB	ND(0.2)															
MAR																
APR	ND(0.20)	ND(10)	35	236	0.27	17	ND(10)	17	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	11	ND(10)	17
MAY																
JUN																
JUL	ND(0.20)	ND(10)	ND(10)	214	0.23	16	ND(10)	<10	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	10	ND(10)	22
AUG	ND(0.20)															
SEP																
OCT	ND(0.20)	ND(10)	ND(10)	109	ND(0.20)	18	ND(10)	11	ND(0.20)	ND(10)	ND(10)	ND(10)	ND(0.20)	15	ND(10)	33
NOV																
DEC																

limit: none

Note: 001D, 001H and 001L analyses performed on quarterly composites, except for mercury (due to holding time).
001F analyses performed quarterly on a composite of weekly samples.

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MONTHLY TOTAL SUSPENDED SOLIDS

Averages (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003
JAN	<5	ND(5)	ND(5)				ND(5)		ND(5)	5	17
FEB	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)
MAR	<5	ND(5)	ND(5)				ND(5)		ND(5)	6	7
APR	<5	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
MAY	7	ND(5)	6		ND(5)		ND(5)		ND(5)	ND(5)	5
JUN	<5	5	ND(5)				ND(5)		ND(5)	ND(5)	5
JUL	<5	ND(5)	8				ND(5)		ND(5)	ND(5)	7
AUG	<5	ND(5)	ND(5)		ND(5)		ND(5)	ND(5)	14	<5	9
SEP	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)
OCT	<5	ND(5)	ND(5)				ND(5)		5	11	ND(5)
NOV	<5	ND(5)	10				ND(5)		ND(5)	ND(5)	8
DEC	<5	ND(5)	ND(5)		ND(5)		ND(5)		ND(5)	ND(5)	ND(5)
Limit:	30	30	30	30	30	30	30	30	30	30	-

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2006.
Blank spots for other discharge points indicate that no discharge occurred during that particular month.

QUARTERLY GREASE & OIL

Averages by Month (mg/l)

Month	001D*	001G	001H	001I	001J	001K	001L	001M	001P	002	003	004
JAN	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
FEB	<5											
MAR	ND(5)											
APR	ND(5)	ND(5)	ND(5)				ND(5)	ND(5)	ND(5)	ND(5)	ND(5)	ND(5)
MAY	<5				ND(5)							
JUN	ND(5)											
JUL	ND(5)	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
AUG	<5				ND(5)			ND(5)				
SEP	ND(5)											
OCT	<5	ND(5)	ND(5)				ND(5)		ND(5)	ND(5)	ND(5)	ND(5)
NOV	<5						ND(5)					
DEC	ND(5)				ND(5)							
Limit:	15	15	15	15	15	15	15	15	15	15	15	15

*** Discharges from 001D are batched. Monthly averages are flow weighted.**
Note: No discharges occurred from 001I and 001K during 2006.

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QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING
(toxicity units, tu_a and tu_c)

Month	ACUTE Test Result	ACUTE 6-Month Median	*CHRONIC Test Result
JAN			
FEB	0.00	0.00	1.0
MAR			
APR			
MAY	0.00	0.00	1.0
JUN			
JUL			
AUG	0.00	0.00	1.0
SEP			
OCT			
NOV	0.00	0.00	1.0
DEC			
6-month median limit:		0.26	5.1

*** It should be noted that this parameter is monitored for the State Ocean Plan instead of the NPDES permit. A value of 1.0 indicates no chronic toxicity.**

DISCHARGE 001N
ANNUAL ANALYSES

Sludge Parameter	Result	Limit
Percent Moisture	99%	None
Total Kjeldahl Nitrogen	580 mg/kg	None
Ammonia (N)	95 mg/kg	None
Nitrate (N)	ND(1) mg/kg	None
Total Phosphorus	210 mg/kg	None
pH	6.7	None
Oil and Grease	6 mg/kg	None
Boron	ND(3) mg/kg	None
Cadmium	ND(0.3) mg/kg	10 X STLC*
Copper	3 mg/kg	10 X STLC
Chromium	ND(0.5) mg/kg	10 X STLC
Lead	ND(1) mg/kg	10 X STLC
Nickel	ND(0.5) mg/kg	10 X STLC
Mercury	ND(0.04) mg/kg	10 X STLC
Zinc	7 mg/kg	10 X STLC
Volume	0.76 tons	None

Note: Annual samples were collected in October.
*** STLC = Soluble Threshold Limit Concentration**

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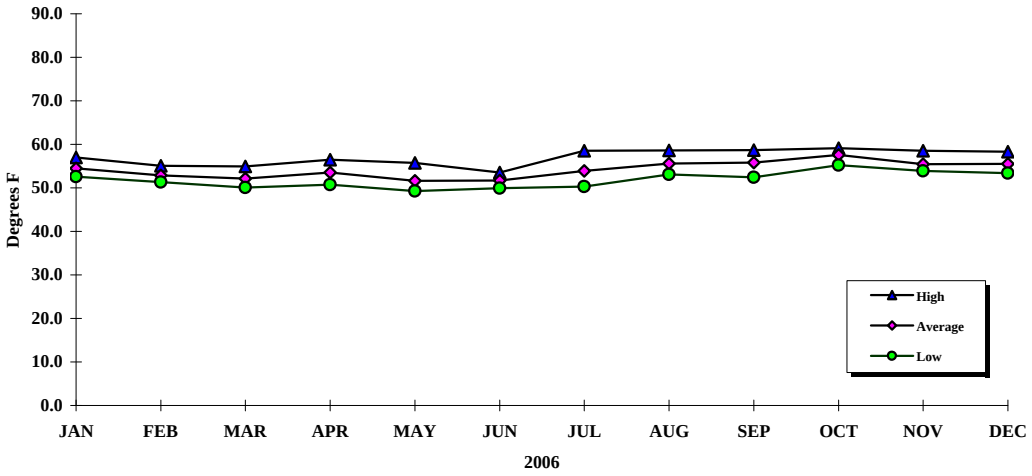
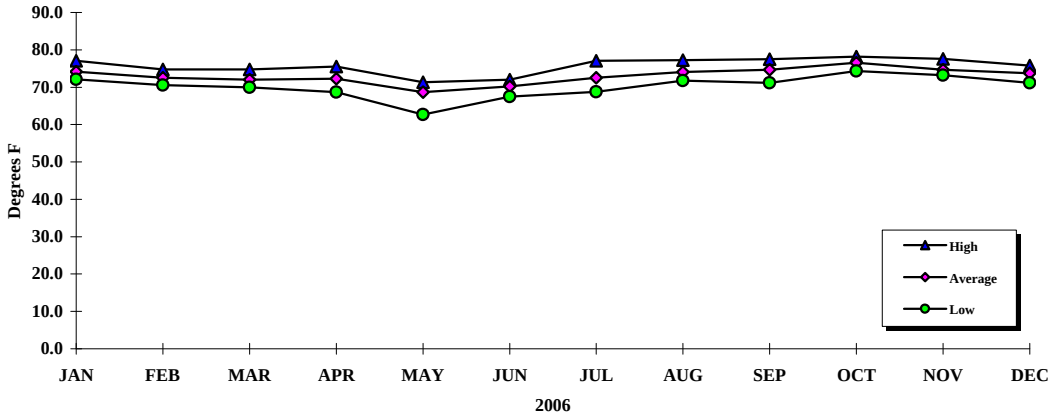
DISCHARGE 001 INFLUENT

Temperature (°F)



DISCHARGE 001 EFFLUENT

Temperature (°F)



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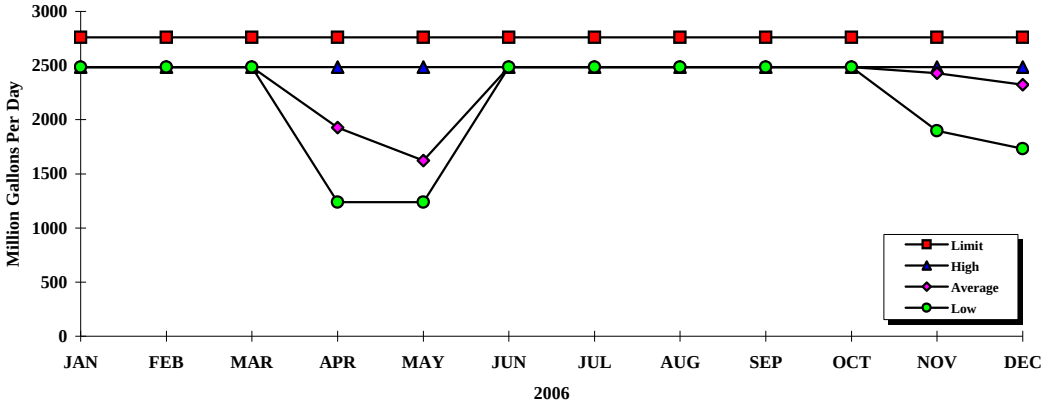
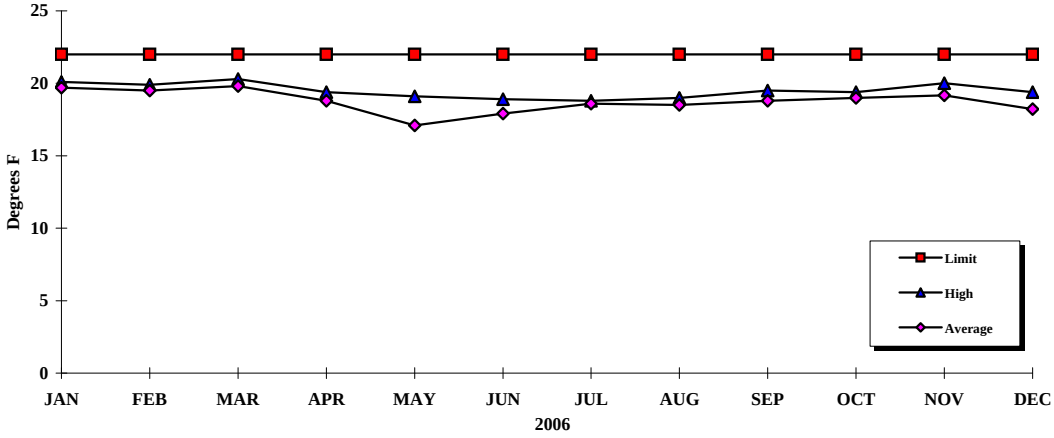
DISCHARGE 001 EFFLUENT
Flow (MGD)



DISCHARGE 001 EFFLUENT
Monthly Delta T (°F)



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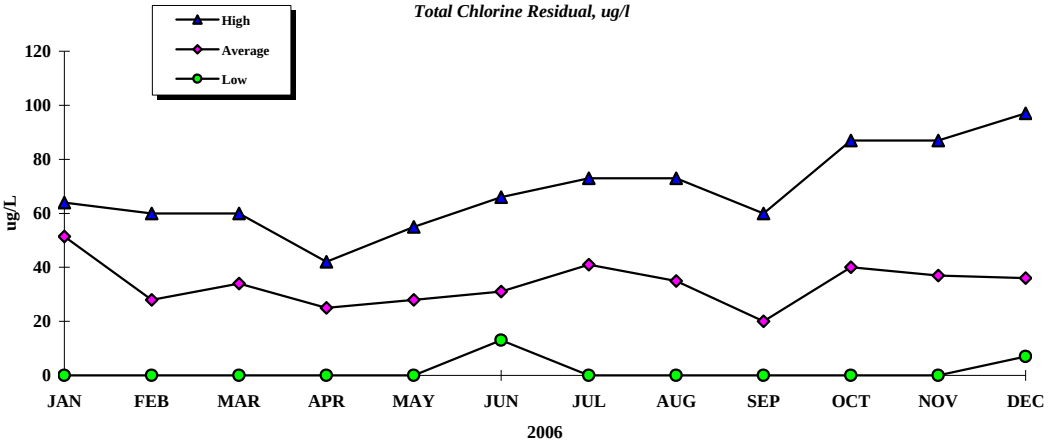
DISCHARGE 001

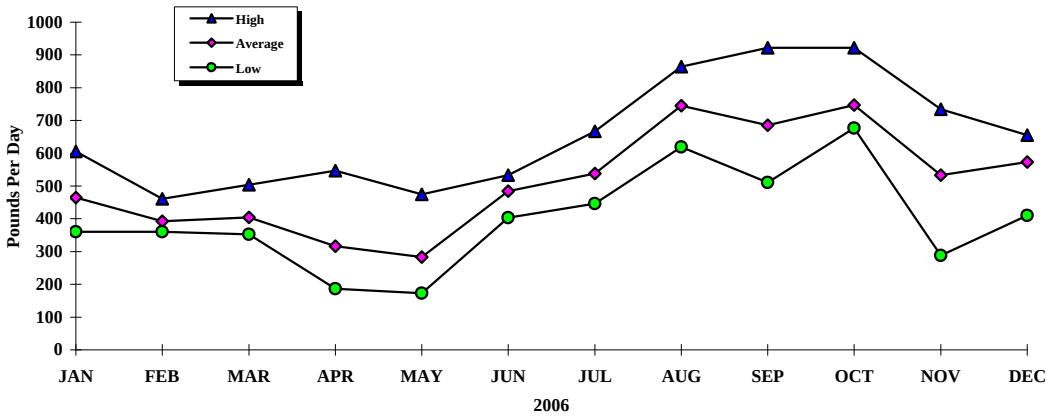
Total Chlorine Residual, ug/l



Note: Values plotted at zero were below the reporting limit.

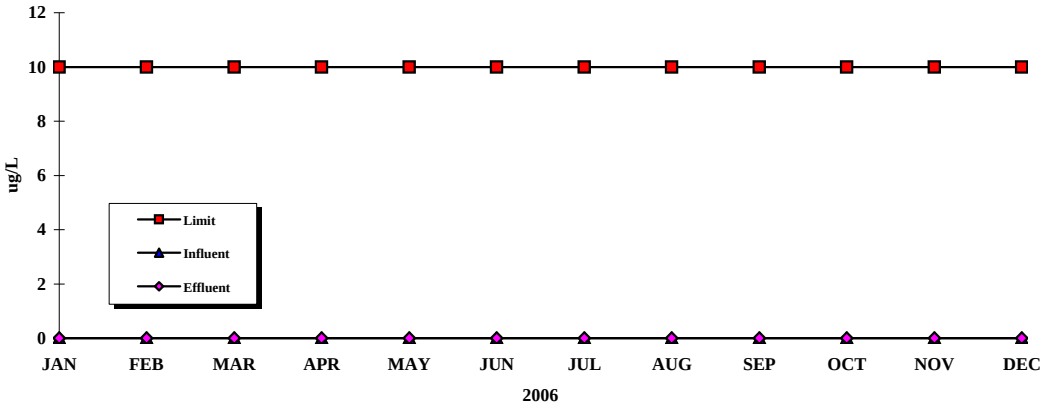
DISCHARGE 001

Total Chlorine Used, pounds per day



DISCHARGE 001

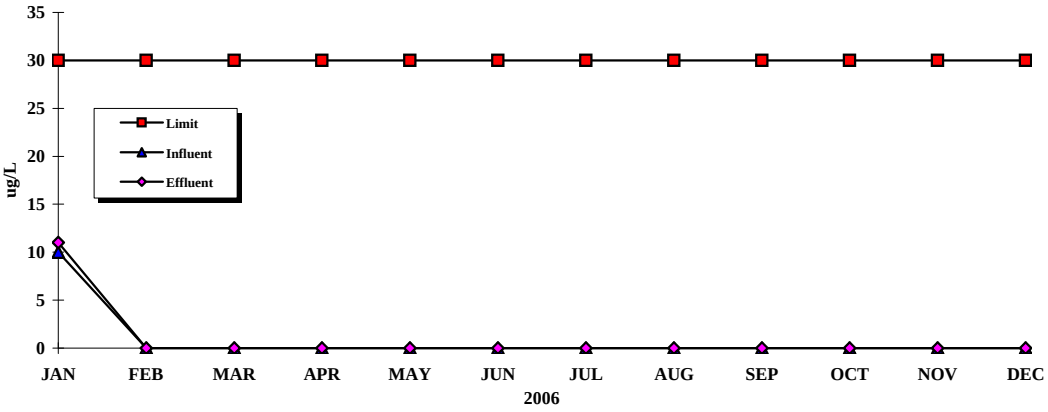
Copper (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Copper is 50 ug/l.

DISCHARGE 001

Nickel (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit (the most conservative limit) is plotted on this chart.
The daily maximum limit for Nickel is 100 ug/l.

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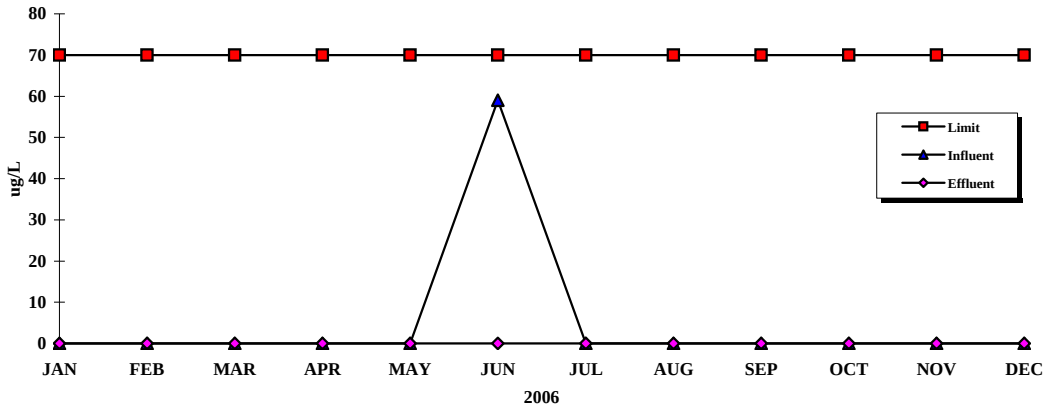
DISCHARGE 001

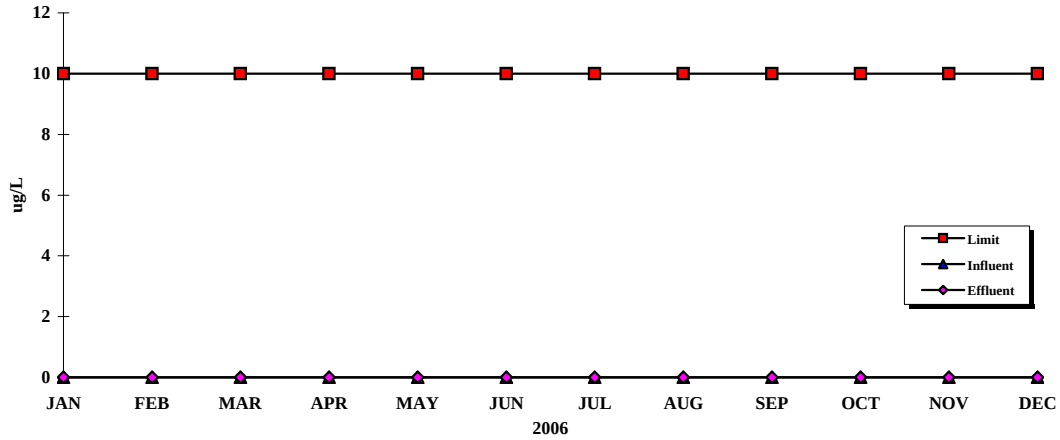
Zinc (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001

Chromium (monthly average, ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
The 6-month median limit is plotted on this chart. The daily maximum limit for chromium is 40 ug/l.

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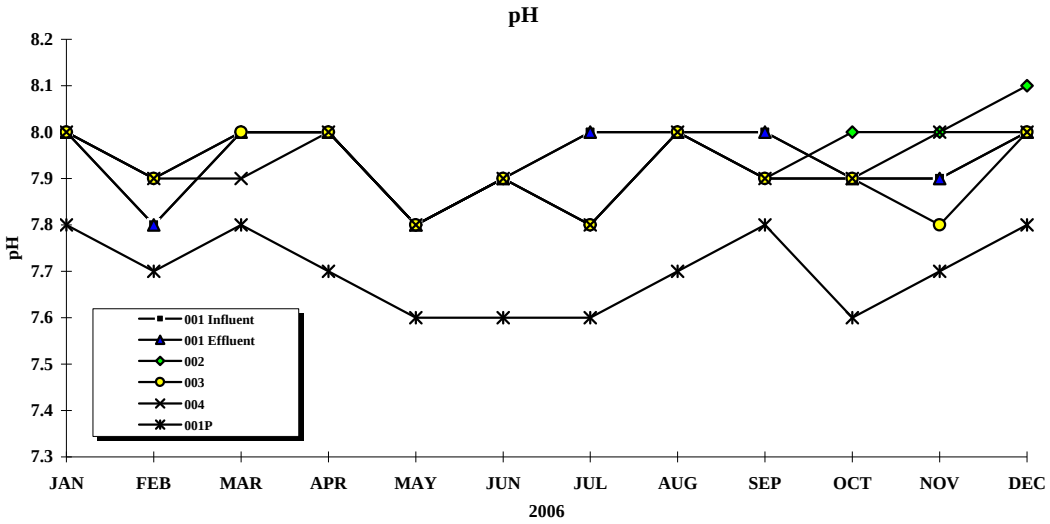
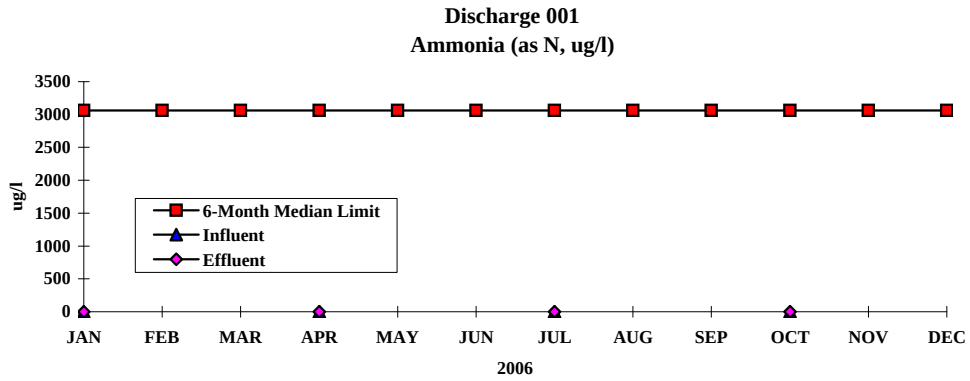


Note: Several data points on this chart overlap.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.
Influent and Effluent values overlap at four points on this plot.

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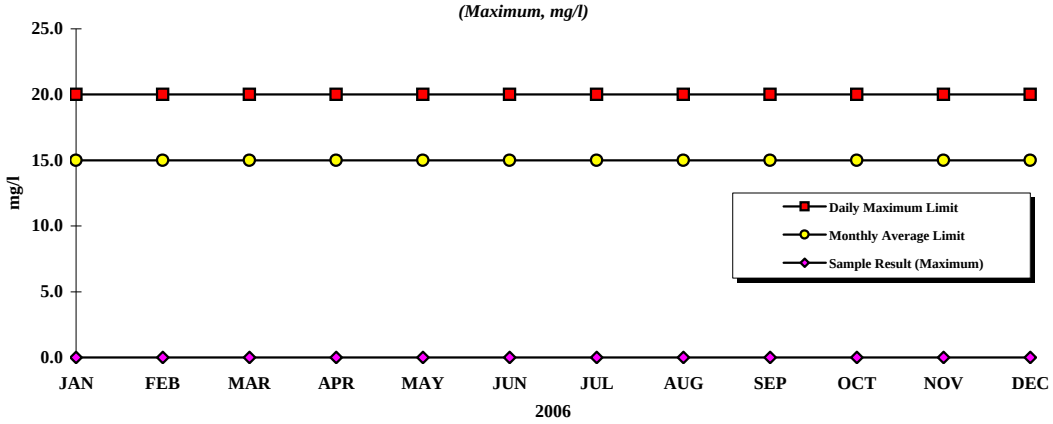
DISCHARGE 001F

Oil & Grease

(Maximum, mg/l)

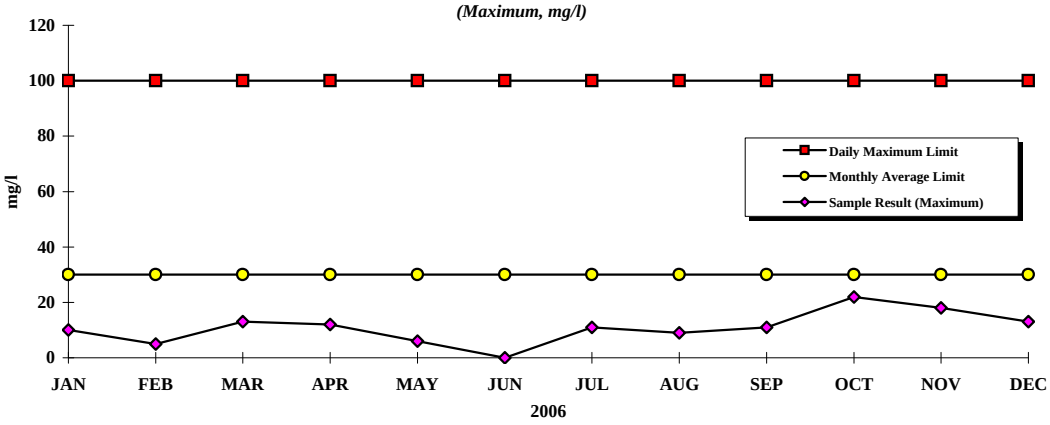


Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001F

Suspended Solids

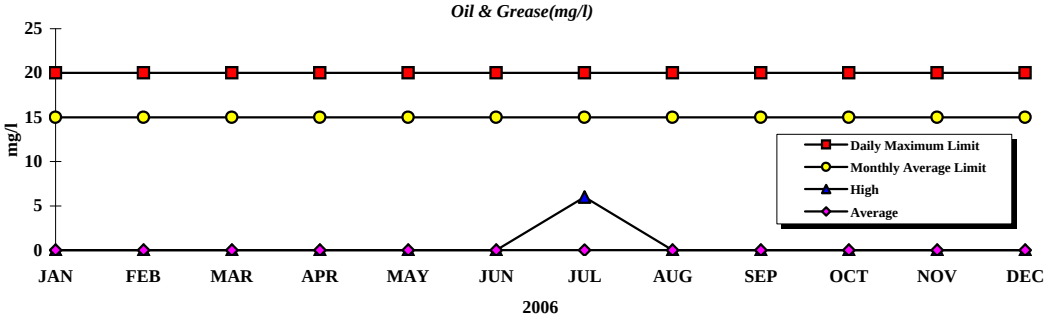
(Maximum, mg/l)



Note: Maximum values are plotted. The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001N

Oil & Grease(mg/l)



Note: Values plotted at zero were below the reporting limit.
High, low and average values overlap at eleven points on this plot.

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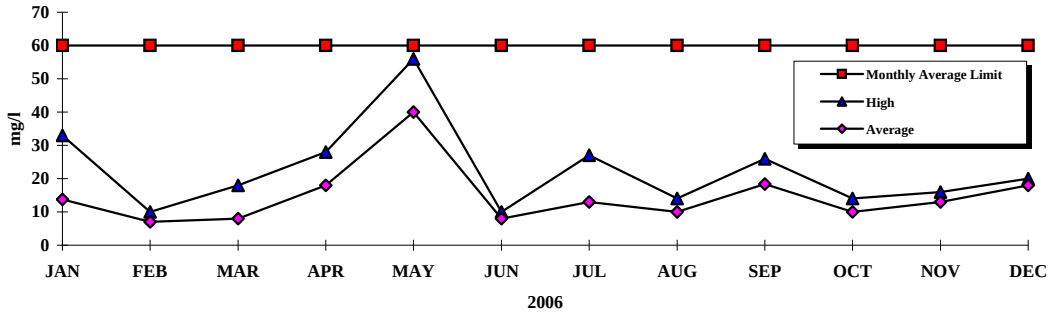
DISCHARGE 001N

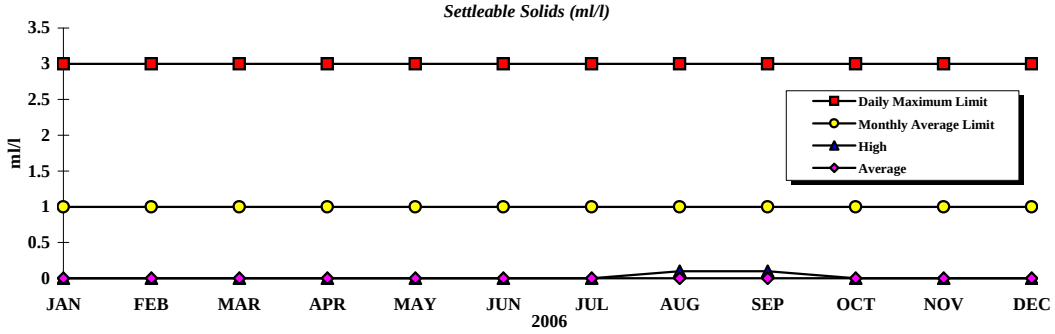
Suspended Solids (mg/l)



Note: Values plotted at zero were below the reporting limit.

DISCHARGE 001N

Settleable Solids (ml/l)



Note: Values plotted at zero were below the reporting limit.
High, average, and low values overlap at ten points on this plot.

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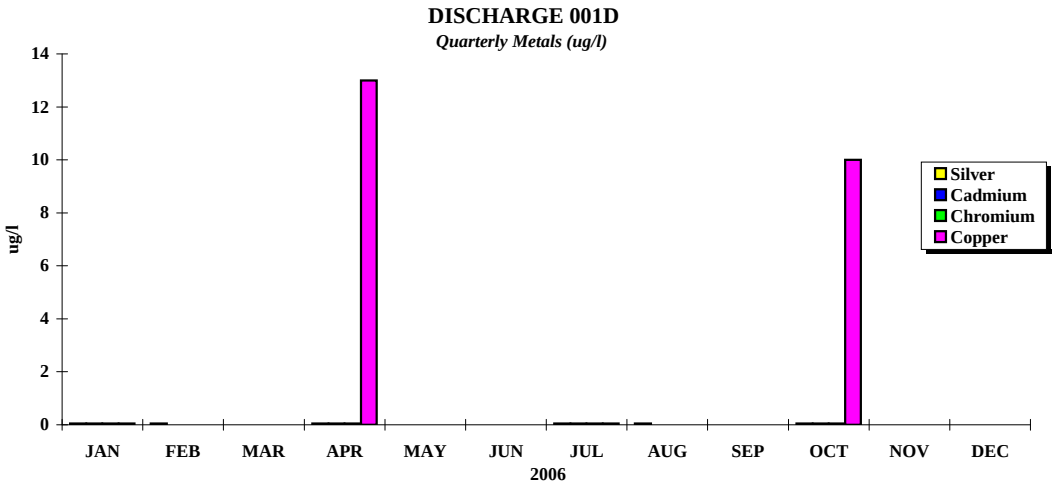
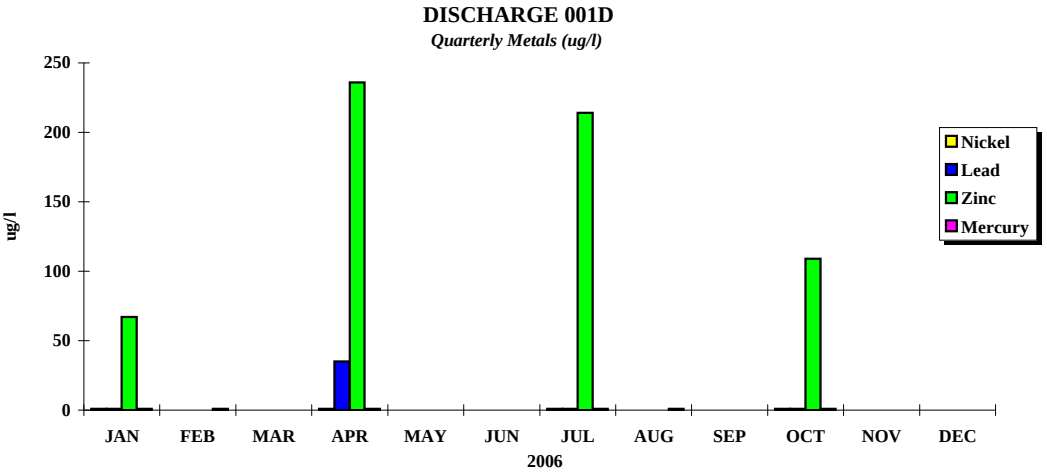


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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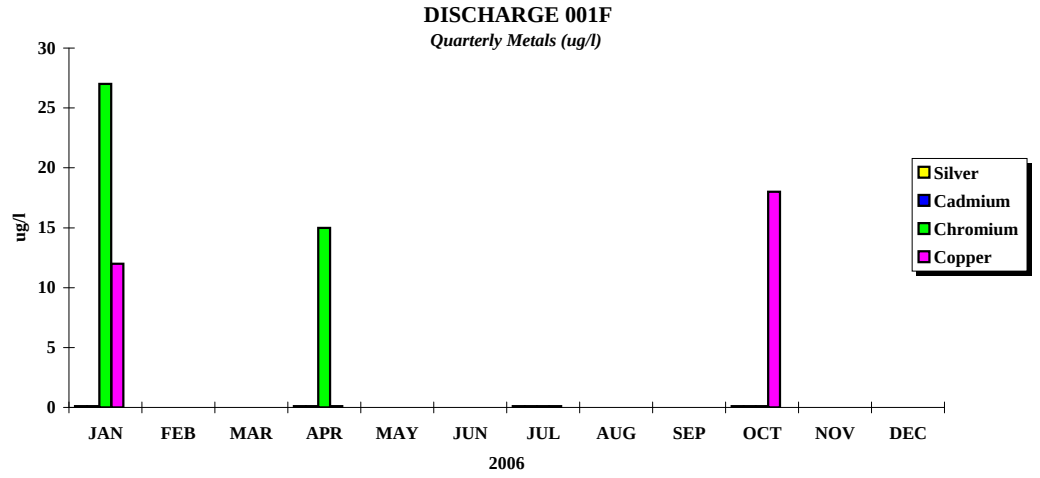
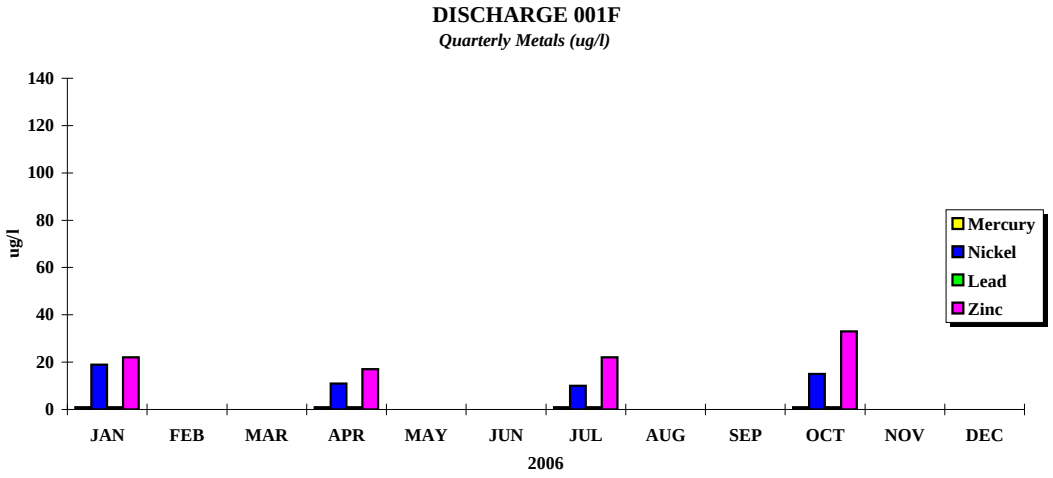


Note: The analyte was not detected at or above the reporting limit for values plotted at zero.



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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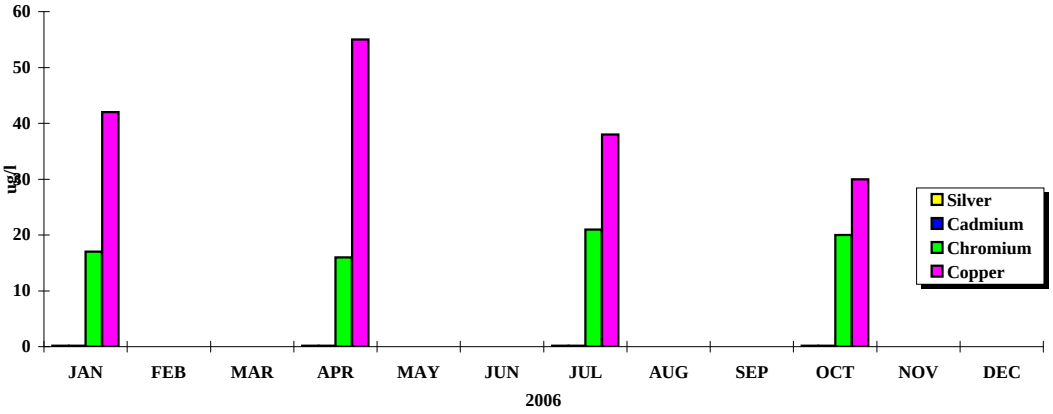
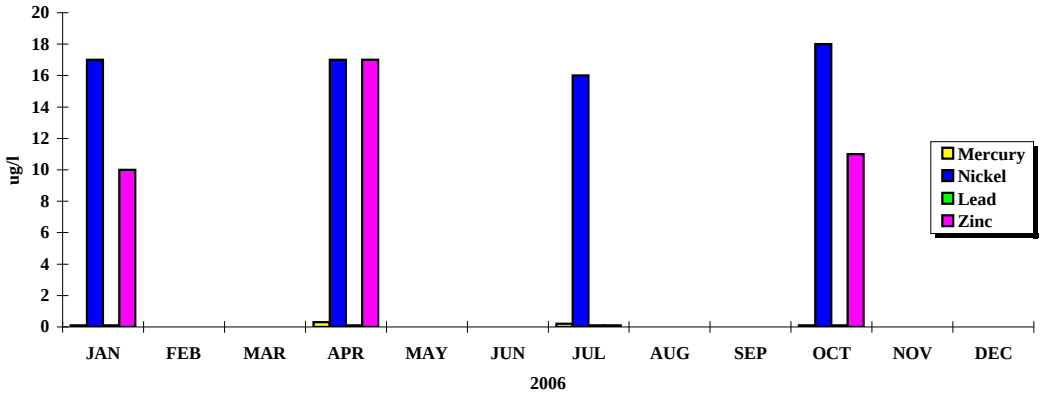
DISCHARGE 001H
Quarterly Metals (ug/l)



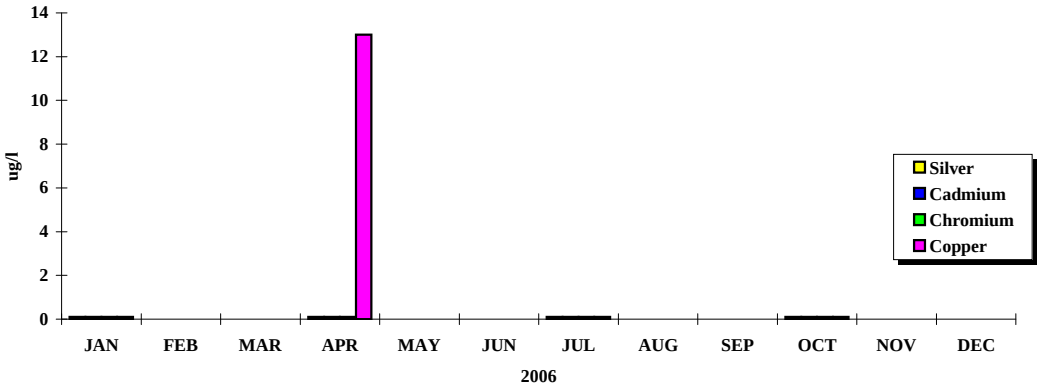
Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001H
Quarterly Metals (ug/l)



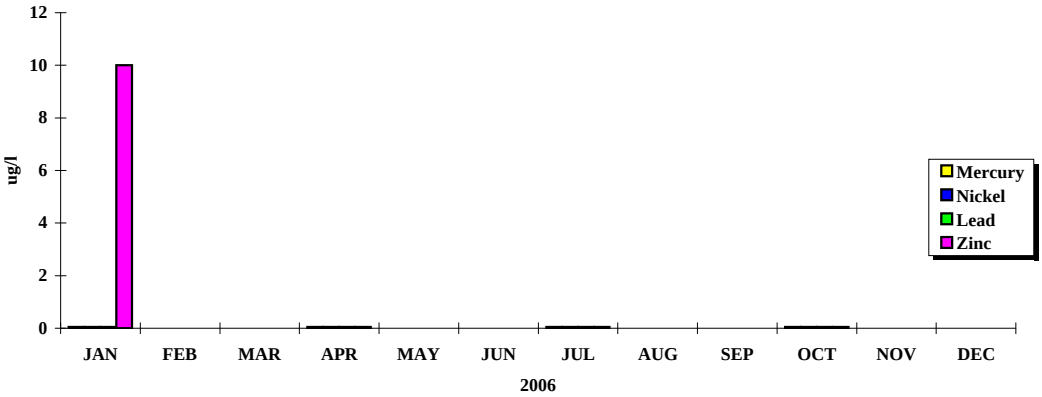
Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001L
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

DISCHARGE 001L
Quarterly Metals (ug/l)



Note: The analyte was not detected at or above the reporting limit for values plotted at zero.

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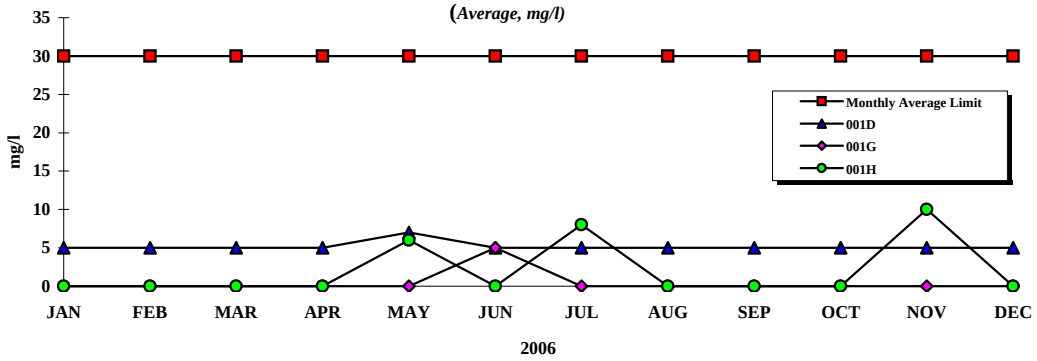
MONTHLY TOTAL SUSPENDED SOLIDS

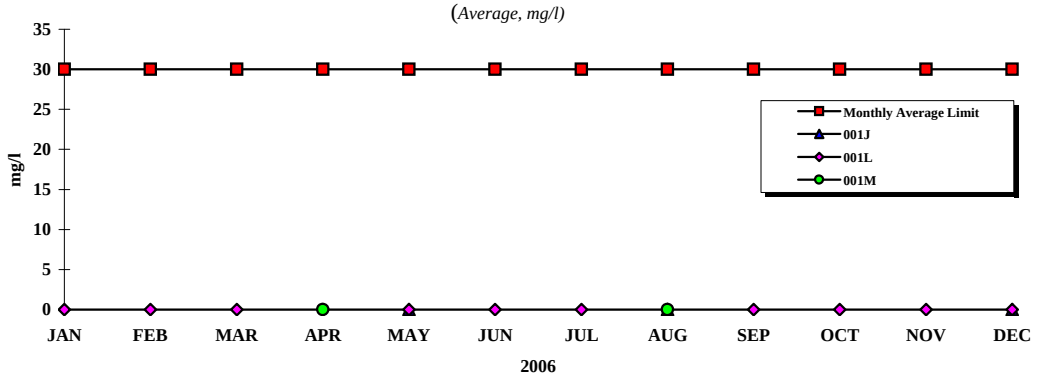
(*Average, mg/l*)



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

MONTHLY TOTAL SUSPENDED SOLIDS

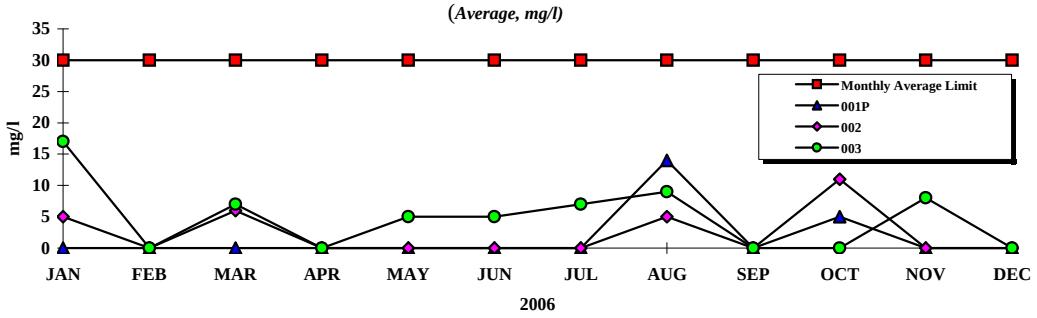
(*Average, mg/l*)



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

MONTHLY TOTAL SUSPENDED SOLIDS

(*Average, mg/l*)



Note: Points on chart may overlap. Values plotted at zero were below the reporting limit.

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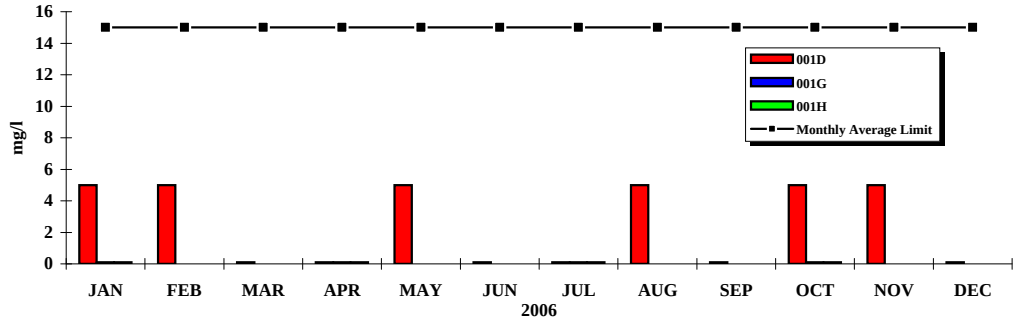
QUARTERLY OIL & GREASE

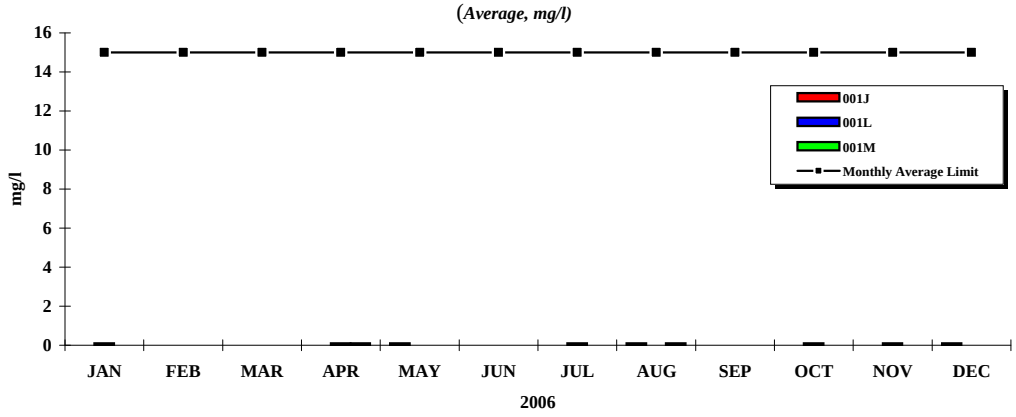
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit. Less than values are plotted at the value.

QUARTERLY OIL & GREASE

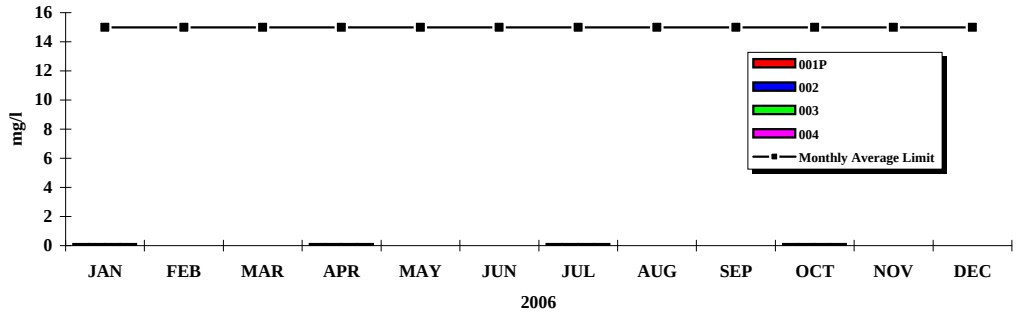
(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

QUARTERLY OIL & GREASE

(*Average, mg/l*)



Note: Values plotted at zero were below the reporting limit.

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ACUTE AND CHRONIC TOXICITY