Encina Power Station
4600 Carlsbad Boulevard
Carlsbad, CA 92008-4301

Main: (760) 268-4000
Fax: (760) 268-4026

CABRILLO POWER I LLC

March 30, 2011

Mr. Philip Isorena
NPDES Unit Chief
California State Water Resources Control Board
Division of Water Quality
15th Floor
1001 I Street
Sacramento, CA 95814

Re: Encina Power Station, NPDES Permit CA0001350

Dear Mr. Isorena,

National Pollution Discharge Elimination System (NPDES) Permit No. CA0001350, Order No. R9-2006-0043 for the Encina Power Station expires on October 1, 2011. The enclosed permit renewal application is being submitted on behalf of Cabrillo Power I LLC. Per condition 1.N of the Statewide Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy), the California State Water Resources Control Board (SWRCB) has assumed responsibility ". . . for all NPDES permit actions for existing power plants subject to this Policy, including without limitation actions to issue, modify, reissue, revoke, and terminate NPDES permits after October 1, 2010." Thus, the application is being submitted to the SWRCB in lieu of submission to the San Diego Regional Water Quality Control Board (RWQCB).

Please contact Ms. Sheila Henika, P.E. at (760) 268-4018, if you have any questions regarding this application.

Sincerely,
Cabrillo Power I LLC
By: Its Authorized Agent,

Jerry L Carter

By: NRG Cabrillo Power Operations Inc.
Jerry L. Carter
Plant Manager

Enclosures

cc:
Robert Morris, RWQCB

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San Diego Regional Water Quality Control Board NPDES Permit No. CA0001350 Order No. R9-2006-0043 (Waste Discharge Requirements for Cabrillo Power I LLC, Encina Power Plant, San Diego County) expires on October 1, 2011. This Application is being submitted for the renewal of the said permit.

The following California and Federal application forms are enclosed:

- Signatory and Certification Statement to NPDES Permit Applications
- SWRCB Contributions Disclosure Statement
- SWRCB Form 200
- USEPA Form 1
- USEPA Form 2C

In order to provide information specified in each of these applications, the following attachments were required:

Section 1 - SWRCB Form 200:

Section VI. - Characterization Information and Site Map

To address information requested in Section VI for SWRCB Form 200, attached to this application are the following USEPA applications:

- Form 1 (Section 2)
- Form 2C (Section 3)

These forms and their respective attachments provide a complete characterization of this facility's NPDES discharge, and include:

- Water mass balance schematic
- Laboratory chemical analyses of the combined schematic
- Best Management Practices (Storm Water Pollution Prevention Plan)
- Description of the disposal methods
- Site Map

Section 2 - USEPA Form 1:

Supplemental attachments included with USEPA Form 1 include:

- Attachment 2.1 - Existing Environmental Permits
- Attachment 2.2 - Site Location Map
- Attachment 2.3 - Encina Power Station Map Showing Location of Cooling Water Intake and Discharge Point

Section 3 - USEPA Form 2C:

Supplemental attachments included with the USEPA Form 2C include:

- Attachment 3.1 - Section II.A and II.B - Flows, Sources of Pollution, and Treatment Technologies
    - Figure 3.1 - Water Mass Balance Schematic
    - Figure 3.2 - Wastewater Functional Schematic
- Attachment 3.2 - Description of Encina Power Station's Facilities, Operations and Discharges
    - Figure 3.3 – Heat Treatment Diagram
- Attachment 3.3 - Application Sampling and Analysis Laboratory Reports
- Attachment 3.4 - Best Management Practices (Storm Water Pollution Prevention Plan)

SECTION 1

State of California Form 200 and Contributions Disclosure Statement

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

I. FACILITY INFORMATION

A. Facility:

Name: Encina Power Station
Address: 4600 Carlsbad Blvd.
City: Carlsbad **County:** San Diego **State:** CA **Zip Code:** 92008-4301
Contact Person: Jerry L. Carter **Telephone Number:** (760) 268-4011

B. Facility Owner:

Name: Cabrillo Power I LLC
Address: 4600 Carlsbad Blvd.
City: Carlsbad **State:** CA **Zip Code:** 92008
Contact Person: Jerry L. Carter **Telephone Number:** (760) 268-4011 **Federal Tax ID:** 76-0595963

Owner Type (Check One)
1. ☐ Individual
2. ☑ Corporation
3. ☐ Governmental Agency
4. ☐ Partnership
5. ☐ Other: ______

C. Facility Operator (The agency or business, not the person):

Name: NRG Cabrillo Power Operations Inc.
Address: 4600 Carlsbad Blvd.
City: Carlsbad **State:** CA **Zip Code:** 92008
Contact Person: Jerry L. Carter **Telephone Number:** (706) 268-4011

Operator Type (Check One)
1. ☐ Individual
2. ☑ Corporation
3. ☐ Governmental Agency
4. ☐ Partnership
5. ☐ Other: ______

D. Owner of the Land:

Name: Same as Facility Owner
Address:
City: **State:** **Zip Code:**
Contact Person: **Telephone Number:**

Owner Type (Check One)
1. ☐ Individual
2. ☐ Corporation
3. ☐ Governmental Agency
4. ☐ Partnership
5. ☐ Other: ______

E. Address Where Legal Notice May Be Served:

Address: 4600 Carlsbad Blvd.
City: Carlsbad **State:** CA **Zip Code:** 92008
Contact Person: Jerry L. Carter **Telephone Number:** (760) 268-4011

F. Billing Address:

Address: Same as Facility Owner
City: **State:** **Zip Code:**
Contact Person: **Telephone Number:**

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

II. TYPE OF DISCHARGE

Check Type of Discharge(s) Described in this Application (A or B):

☐ **A. WASTE DISCHARGE TO LAND** ☑ **B. WASTE DISCHARGE TO SURFACE WATER**

Check all that apply:

☐ Domestic/Municipal Wastewater Treatment and Disposal
☑ Cooling Water
☐ Mining
☐ Waste Pile
☐ Wastewater Reclamation
☐ Other, please describe: ____

☐ Animal Waste Solids
☐ Land Treatment Unit
☐ Dredge Material Disposal
☐ Surface Impoundment
☑ Industrial Process Wastewater

☐ Animal or Aquacultural Wastewater
☐ Biosolids/Residual
☐ Hazardous Waste (see instructions)
☐ Landfill (see instructions)
☑ Storm Water

III. LOCATION OF THE FACILITY

Describe the physical location of the facility.

1. Assessor's Parcel Number(s)	**2. Latitude**	**3. Longitude**
Facility: 210-010-29	**Facility:** 33DEG 08' 16"N	**Facility:** 117DEG 20' 16"W
Discharge Point: 210-010-29	**Discharge Point:** 33DEG 08' 17"N	**Discharge Point:** 117DEG 20' 22"W

IV. REASON FOR FILING

☐ New Discharge or Facility
☐ Change in Design or Operation
☐ Change in Quantity/Type of Discharge

☐ Changes in Ownership/Operator (see instructions)
☑ Waste Discharge Requirements Update or NPDES Permit Reissuance
☑ Other: Permit Renewal

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Name of Lead Agency: State Water Resources Control Board

Has a public agency determined that the proposed project is exempt from CEQA? ☑ **Yes** ☐ **No**

If Yes, state the basis for the exemption and the name of the agency supplying the exemption on the line below.

Basis for Exemption/Agency: California Water Code Section 13389 / San Diego RWQCB

Has a "Notice of Determination" been filed under CEQA? ☐ **Yes** ☑ **No**

If Yes, enclose a copy of the CEQA document, Environmental Impact Report, or Negative Declaration. If no, identify the expected type of CEQA document and expected date of completion.

Expected CEQA Documents:

☐ **EIR** ☐ **Negative Declaration**

Expected CEQA Completion Date: N.A.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

State of California
Regional Water Quality Control Board

STATE WATER RESOURCES CONTROL BOARD
EUREKA
CALIFORNIA

APPLICATION/REPORT OF WASTE DISCHARGE GENERAL INFORMATION FORM FOR WASTE DISCHARGE REQUIREMENTS OR NPDES PERMIT

VI. OTHER REQUIRED INFORMATION

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to, design and actual flows, a list of constituents and the discharge concentration of each constituent, a list of other appropriate waste discharge characteristics, a description and schematic drawing of all treatment processes, a description of any Best Management Practices (BMPs) used, and a description of disposal methods.

Also include a site map showing the location of the facility and, if you are submitting this application for an NPDES permit, identify the surface water to which you propose to discharge. Please try to limit your maps to a scale of 1:24,000 (7.5' USGS Quadrangle) or a street map, if more appropriate.

VII. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

Section VI (Characterization Information and Site Map) - Addressed by Attachment 4.1 to USEPA Form 2C, entitled 'Section II.A and II.B - Flows, Sources of Pollution, and Treatment Technologies.'

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your Application/Report of Waste Discharge, pursuant to Division 7, Section 13260 of the California Water Code.

VIII. CERTIFICATION

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name: Jerry L. Carter
Title: Plant Manager
Signature: Jerry L Carter
Date: 3/30/2011

FOR OFFICE USE ONLY

Date Form 200 Received:	Letter to Discharger:	Fee Amount Received:	Check #:

CONTRIBUTIONS DISCLOSURE STATEMENT

Check the appropriate response:

X I certify that Cabrillo Power I LLC
(name of applicant)
has not made contributions amounting to $250 or more to any of the current Regional Board members within twelve (12) months of the date of this application for use in a federal, state, or local election.

_____ I certify that ____________________
(name of applicant)
has made contributions amounting to $250 or more to the following current Regional Board members with in twelve (12) months of the date of this application for use in a federal, state, or local election.

Regional Board Member

Amount of Contribution

Signature Jerry L Carter

Name Jerry L. Carter

Title Plant Manager

Date 3/30/2011

Organization Cabrillo Power I LLC

Address 4600 Carlsbad Blvd.
San Diego, CA 92008

Phone Number (760) 268-4011

SECTION 2

United States Environmental Protection Agency (USEPA) Form 1 and Attachments

Please print or type in the unshaded areas only. Form Approved. OMB No. 2040-0086.

FORM
1
GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
GENERAL INFORMATION
Consolidated Permits Program
(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	CAT000618900		D
1	2 13	14	15

LABEL ITEMS	
I. EPA I.D. NUMBER	PLEASE PLACE LABEL IN THIS SPACE
III. FACILITY NAME	
V. FACILITY MAILING ADDRESS	
VI. FACILITY LOCATION	

GENERAL INSTRUCTIONS
If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	 NO	 FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	 NO	 FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	16	X 17	18	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	19	X 20	21
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X 22	23	24	D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	25	X 26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X 28	29	30	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	31	X 32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	34	X 35	36	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	37	X 38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	40	X 41	42	J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	43	X 44	45

III. NAME OF FACILITY

C	SKIP	
1		Encina Power Station
15	16 - 29	30 69

IV. FACILITY CONTACT

C	A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2	Carter, Jerry L., Plant Manager	(760) 268-4011
15	16 45	46 48 49 51 52- 55

V.FACILTY MAILING ADDRESS

C	A. STREET OR P.O. BOX
3	4600 Carlsbad Blvd.
15	16 45

C	B. CITY OR TOWN	C. STATE	D. ZIP CODE
4	Carlsbad	CA	92008
15	16 40	41 42	47 51

VI. FACILITY LOCATION

C	A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER
5	4600 Carlsbad Blvd.
15	16 45

B. COUNTY NAME
San Diego
46 70

C	C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6	Carlsbad	CA	92008	
15	16 40	41 42	47 51	52 -54

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		**B. SECOND**	
C 7 4911	*(specify)* Electric Power Generation	C 7	*(specify)* N/A
C. THIRD		**D. FOURTH**	
C 7	*(specify)* N/A	C 7	*(specify)* N/A

VIII. OPERATOR INFORMATION

A. NAME
C 8 NRG Cabrillo Power Operations Inc.

B. Is the name listed in Item VIII-A also the owner?
☐ YES ☑ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P

(specify)

D. PHONE *(area code & no.)*
C A (760) 268-4011

E. STREET OR P.O. BOX
4600 Carlsbad Blvd.

F. CITY OR TOWN	**G. STATE**	**H. ZIP CODE**
C B Carlsbad	CA	92008

IX. INDIAN LAND
Is the facility located on Indian lands?
☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*		**D. PSD** *(Air Emissions from Proposed Sources)*	
C T I: 9 N	CA0001350	C T I: 9 P	
B. UIC *(Underground Injection of Fluids)*		**E. OTHER** *(specify)*	
C T I: 9 U		C T I: 9 List Attached	*(specify)* (See Appendix A)
C. RCRA *(Hazardous Wastes)*		**E. OTHER** *(specify)*	
C T I: 9 R		C T I: 9	*(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Conversion of chemical energy to electrical energy.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Jerry L. Carter, Plant Manager	Jerry L Carter	3/30/2011

COMMENTS FOR OFFICIAL USE ONLY

C C

SECTION 2

Attachment 2.1 - Existing Environmental Permits

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Semi-Annual Chronic Toxicity Tests

In accordance with Order No R9-2006-0043 (Section IV.A. and Section V.A of Attachment E - Monitoring and Reporting Program), tests were conducted in years 2008 to 2010 from the combined discharge using Macrocystis pyriferas (Giant Kelp). With one exception TUc values ranged from 1 to 8.33. One sample in April 2010 showed the germination results exceeded the compliance limit of 16.5 TUc. However, test of an intake sample collected concurrently also showed germination results that exceeded the compliance limit of 16.5 TUc. A June 2010 re-sampling showed germination results less than the compliance limit of 16.5 TUc. In 2008, tests were conducted on Atherinops affinis (Topsmelt) and Haliotus rufescens (Red Abalone). TUc results for each test were 1.0. In 2010, tests were conducted on Menidia beryllina (Inland Silverside) and Haliotus refescens (Red Abalone) TUc results for each test were 1.0.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
San Diego Gas and Electric Environmental Analysis Laboratory	6555 Nancy Ridge Drive, Suite 300 San Diego, CA 92121	(619) 260-5747	Pesticides/PCBs, Semi-volatile Organic Compounds, Volatile Organic Compounds
CalScience Environmental Laboraties	7440 Lincoln Way, Garden Grove, CA 92841-1427	(714) 895-5494	TOC,Total Organic Nitrogen, Sulfide, Nitrogen as Ammonia, Total Cyanide, Total Phenols
D-Tek Analytical Laboratories, Inc.	2722 Loker Ave. West, Suite B, Carlsbad, CA 92010	(760) 930-2555	BOD, Color, Surfactants (MBAS), Sulfite
Motile Laboratory Services	537 Vine Street, Oceanside, CA 92054	(760) 840-0577	Fecal Coliform
TestAmerica	17461 Derian Ave., Suite 100, Irvine, CA 92614	(949) 261-1022	Organotins (Tributylin)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)
Jerry L. Carter, Plant Manager

B. PHONE NO. (*area code & no.*)
(760) 268-4011

C. SIGNATURE
Jerry L Carter

D. DATE SIGNED
3/30/2011

ENCINA POWER STATION
NPDES PERMIT (CA0001350) RENEWAL APPLICATION (3/31/11)
EPA NPDES Application Form 2C - Section V, Part C

EPA ID No. CAT 000 618 900

V. Intake and Effluent Characteristics

Part C.

Outfall No. 001

Pollutant	CAS No.	Mark X			Effluent							Units		Intake		
		Testing Required	Believed Present	Believed Absent	Maximum Daily Value		Maximum 30 Day Value		Long Term Avrg Value		No. of Analyses			Long Term Avrg Value		No. of Analyses
					Conc	Mass	Conc	Mass	Conc	Mass		Conc	Mass	Conc	Mass	
GS/MS Fraction - Base/Neutral Compounds (Continued)																
43B N-nitrosodiphenylamine **	86-30-6	X			<10	<53.0					1	ug/l	lbs	<10	<53.0	1
44B phenanthrene	85-01-8	X			<5.4	<12.7					1	ug/l	lbs	<5.4	<12.7	1
45B pyrene	129-00-0	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
46B 1,2,4-trichlorobenzene	120-82-1	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
GS/MS Fraction - Pesticide Compounds																
1P aldrin	309-00-2	X			<0.04	<0.1					1	ug/l	lbs	<0.04	<0.1	1
2P alpha-BHC	319-84-6	X			<0.03	<0.1					1	ug/l	lbs	<0.03	<0.1	1
3P beta-BHC	319-85-7	X			<0.06	<0.1					1	ug/l	lbs	<0.06	<0.1	1
4P gamma-BHC	58-89-9	X			<0.04	<0.1					1	ug/l	lbs	<0.04	<0.1	1
5P delta-BHC	319-86-8	X			<0.09	<0.2					1	ug/l	lbs	<0.09	<0.2	1
6P chlordane	57-74-9	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
7P 4,4-DDT	50-29-3	X			<0.12	<0.3					1	ug/l	lbs	<0.12	<0.3	1
8P 4,4-DDE	72-55-9	X			<0.04	<0.1					1	ug/l	lbs	<0.04	<0.1	1
9P 4,4-DDD	72-54-8	X			<0.11	<0.3					1	ug/l	lbs	<0.11	<0.3	1
10P dieldrin	60-57-1	X			<0.02	<0.0					1	ug/l	lbs	<0.02	<0.0	1
11P alpha-endosulfan	115-29-7	X			<0.14	<0.3					1	ug/l	lbs	<0.14	<0.3	1
12P beta-endosulfan	115-29-7	X			<0.04	<0.1					1	ug/l	lbs	<0.04	<0.1	1
13P endosulfan sulfate	1031-07-8	X			<0.660	<1.6					1	ug/l	lbs	<0.660	<1.6	1
14P endrin	72-20-8	X			<0.06	<0.1					2	ug/l	lbs	<0.06	<0.1	1
15P endrin aldehyde	7421-93-4	X			<0.23	<0.5					1	ug/l	lbs	<0.23	<0.5	1
16P heptachlor	76-44-8	X			<0.03	<0.1					1	ug/l	lbs	<0.03	<0.1	1
17P heptachlor epoxide	1024-57-3	X			<0.83	<2.0					1	ug/l	lbs	<0.83	<2.0	1
18P PCB-1242	53469-21-9	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
19P PCB-1254	11097-69-1	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
20P PCB-1221	11104-28-2	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
21P PCB-1232	11141-16-5	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
22P PCB-1248	12672-29-6	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
23P PCB-1260	11096-82-5	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
24P PCB-1016	12674-11-2	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1
25P toxaphene	8001-35-2	X			<1.00	<2.4					1	ug/l	lbs	<1.00	<2.4	1

N/A* - This pollutant has been deleted from Table II in 40 CFR 122.21, therefore testing is not required.

1) "<" indicates that the pollutant concentration was not detected. For these pollutants, the detection limit is reported in the concentration column. For the purpose of calculating mass emissions for this table, the detection limit was utilized as the concentration where the pollutant was not detected. Such substitution should not be used for the purpose of determining compliance with effluent limits.

2) Mass emissions were calculated using the flow during the actual sampling period:
For Grab Samples - 282.3 MGD on March 8, 2011

3) This chemical is being tested for per Table B of the 2001 California Ocean Plan.

++ Chemical constituents were analyzed in samples collected from LVWW Sample, collected October 13, 2010. Mass emissions were calculated using the flow during the date of sampling - 634.5 MGD on October 13, 2010.

+++ Hexavalent chromium was analyzed in collected intake and discharge samples, collected in October 13, 2010. Mass emissions were calculated using the flow during the date of sampling - 634.5 MGD on October 13, 2010.

ENCINA POWER STATION
NPDES PERMIT (CA0001350) RENEWAL APPLICATION (3/31/11)
EPA NPDES Application Form 2C - Section V, Part C

EPA ID No. CAT 000 618 900

V. Intake and Effluent Characteristics

Part C.

Outfall No. 001

Pollutant	CAS No.	Mark X			Effluent									Intake		
		Testing Required	Believed Present	Believed Absent	Maximum Daily Value		Maximum 30 Day Value		Long Term Avrg Value		No. of Analyses	Units		Long Term Avrg Value		No. of Analyses
					Conc	Mass	Conc	Mass	Conc	Mass		Conc	Mass	Conc	Mass	
GS/MS Fraction - Acid Compounds																
1A 2-chlorophenol	95-57-8	X			<3.3	<7.8					1	ug/l	lbs	<3.3	<7.8	1
2A 2,4-dichlorophenol	120-83-2	X			<2.7	<6.4					1	ug/l	lbs	<2.7	<6.4	1
3A 2,4-dimethylphenol	105-67-9	X			<2.7	<6.4					1	ug/l	lbs	<2.7	<6.4	1
4A 4,6-dinitro-o-cresol	534-52-1	X			<24	<57					1	ug/l	lbs	<24	<57	1
5A 2,4-dinitrophenol	51-28-5	X			<42	<99					1	ug/l	lbs	<42	<99	1
6A 2-nitrophenol	88-75-5	X			<3.6	<8.5					1	ug/l	lbs	<3.6	<8.5	1
7A 4-nitrophenol	100-02-7	X			<2.4	<5.7					1	ug/l	lbs	<2.4	<5.7	1
8A p-chloro-m-cresol	59-50-7	X			<3.0	<7.1					1	ug/l	lbs	<3.0	<7.1	1
9A pentachlorophenol	87-86-5	X			<3.6	<8.5					1	ug/l	lbs	<3.6	<8.5	1
10A phenol	108-95-2	X			<1.5	<3.5					1	ug/l	lbs	<1.5	<3.5	1
11A 2,4,6-trichlorophenol	88-06-2	X			<2.7	<6.4					1	ug/l	lbs	<2.7	<6.4	1
GS/MS Fraction - Base/Neutral Compounds																
1B acenaphthene	83-32-9	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
2B acenaphthylene	208-96-8	X			<3.5	<8.2					1	ug/l	lbs	<3.5	<8.2	1
3B anthracene	120-12-7	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
4B benzidine	92-87-5	X			<10	<23.6					1	ug/l	lbs	<10	<23.6	1
5B benzo(a)anthracene	56-55-3	X			<7.8	<18.4					1	ug/l	lbs	<7.8	<18.4	1
6B benzo(a)pyrene	50-32-8	X			<7.8	<18.4					1	ug/l	lbs	<7.8	<18.4	1
7B 3,4-benzofluoranthene	205-99-2	X			<4.8	<11.3					1	ug/l	lbs	<4.8	<11.3	1
8B benzo(g,h,i)perylene	191-24-2	X			<4.1	<9.7					1	ug/l	lbs	<4.1	<9.7	1
9B benzo(k)fluoranthene	207-08-9	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
10B bis(2-chloroethoxy)methane	111-91-1	X			<5.3	<12.5					1	ug/l	lbs	<5.3	<12.5	1
11B bis(2-chloroethyl)ether ++	111-44-4	X			<5.7	<30.2					1	ug/l	lbs	<5.7	<30.2	1
12B bis(2-chloroisopropyl)ether ++	102-60-1	X			<5.7	<30.2					1	ug/l	lbs	<5.7	<30.2	1
13B bis(2-ethylhexyl)phthalate	117-81-7	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
14B 4-bromophenyl phenyl ether	101-55-3	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
15B butyl benzyl phthalate	85-68-7	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
16B 2-chloronaphthalene	91-58-7	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
17B 4-chlorophenyl phenyl ether	7005-72-3	X			<4.2	<9.9					1	ug/l	lbs	<4.2	<9.9	1
18B chrysene	218-01-9	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
19B dibenz(a,h)anthracene	53-70-3	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
20B 1,2-dichlorobenzene	95-50-1	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
21B 1,3-dichlorobenzene	541-73-1	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
22B 1,4-dichlorobenzene	106-46-7	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
23B 3,3-dichlorobenzidine	91-94-1	X			<16	<37.7					1	ug/l	lbs	<16	<37.7	1
24B diethyl phthalate	84-66-2	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
25B dimethyl phthalate	131-11-3	X			<1.6	<3.8					1	ug/l	lbs	<1.6	<3.8	1
26B di-n-butyl phthalate	84-74-2	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
27B 2,4-dinitrotoluene	121-14-2	X			<5.7	<13.4					1	ug/l	lbs	<5.7	<13.4	1
28B 2,6-dinitrotoluene	606-20-2	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
29B di-n-octyl phthalate	117-84-0	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
30B 1,2-diphenylhydrazine (as azobenzene) ++	122-66-7	X			<10	<53.0					1	ug/l	lbs	<10	<53.0	1
31B fluoranthene	206-44-0	X			<2.2	<5.2					1	ug/l	lbs	<2.2	<5.2	1
32B fluorene	86-73-7	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
33B hexachlorobenzene	118-74-1	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
34B hexachlorobutadiene	87-68-3	X			<0.9	<2.12					1	ug/l	lbs	<0.9	<2.1	1
35B hexachlorocyclopentadiene ++	77-47-4	X			<10	<53.0					1	ug/l	lbs	<10	<53.0	1
36B hexachloroethane	67-72-1	X			<1.6	<3.8					1	ug/l	lbs	<1.6	<3.8	1
37B indeno(1,2,3-cd)pyrene	193-39-5	X			<3.7	<8.7					1	ug/l	lbs	<3.7	<8.7	1
38B isophorone	78-59-1	X			<2.2	<5.2					1	ug/l	lbs	<2.2	<5.2	1
39B naphthalene	91-20-3	X			<1.6	<3.8					1	ug/l	lbs	<1.6	<3.8	1
40B nitrobenzene	98-95-3	X			<1.9	<4.5					1	ug/l	lbs	<1.9	<4.5	1
41B N-nitrosodimethylamine ++	62-75-9	X			<10	<53.0					1	ug/l	lbs	<10	<53.0	1
42B N-nitrosodi-n-propylamine	621-64-7	X			<10	<23.6					1	ug/l	lbs	<10	<23.6	1

ENCINA POWER STATION
NPDES PERMIT (CA0001350) RENEWAL APPLICATION (3/31/11)
EPA NPDES Application Form 2C - Section V, Part C

EPA ID No. CAT 000 618 900

V. Intake and Effluent Characteristics

Part C.

Outfall No. 001

Pollutant	CAS No.	Mark X			Effluent							Units		Intake		
		Testing Required	Believed Present	Believed Absent	Maximum Daily Value		Maximum 30 Day Value		Long Term Avrg Value		No. of Analyses			Long Term Avrg Value		No. of Analyses
					Conc	Mass	Conc	Mass	Conc	Mass		Conc	Mass	Conc	Mass	
Metals, Cyanide, and Total Phenols																
Total Antimony	7440-36-0	X			<0.10	<235.6					1	mg/L	lbs	<0.10	<235.6	1
Total Arsenic	7440-38-2	X			2.7	6.4					1	ug/l	lbs	4.3	10.1	1
Total Beryllium	7440-41-7	X			<0.010	<23.6					1	mg/L	lbs	<0.010	<23.6	1
Total Cadmium	7440-43-9	X			<0.5	<1.2					1	ug/l	lbs	<0.5	<1.2	1
Total Chromium	7440-47-3	X			1.9	4.5					1	ug/l	lbs	2.1	4.9	1
Hexavalent Chromium +++		X			<10	<53.0					1	ug/l	lbs	<10	<53.0	1
Total Copper	7440-50-8	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
Total Lead	7439-92-1	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
Total Mercury	7439-97-6	X			<0.1	<0.2					1	ug/l	lbs	<0.1	<0.2	1
Total Nickel	7440-02-0	X			<2.5	<5.9					1	ug/l	lbs	<2.5	<5.9	1
Total Selenium	7782-49-2	X			<0.050	<117.8					1	mg/L	lbs	<0.050	<117.8	1
Total Silver	7440-22-4	X			<0.50	<1.2					1	ug/l	lbs	<0.50	<1.2	1
Total Thallium	7440-28-0	X			<0.5	<1.178					1	mg/L	lbs	<0.50	<1.178	1
Total Zinc	7440-66-6	X			<0.060	<141.4					1	mg/L	lbs	<0.060	<141.4	1
Total Cyanide	57-12-5	X			<0.10	<235.6					1	mg/L	lbs	<0.10	<235.6	1
Total Phenols		X			0.7	1,649					1	mg/L	lbs	0.27	636	1
Dioxin																
2,3,7,8-Tetrachlorodibenso-P-Dioxin	1746-01-6			X												
GS/MS Fraction - Volatile Compounds																
1V acrolein ++	107-02-8	X			<100	<529.6					1	ug/l	lbs	<100	<529.6	1
2V acrylonitrile ++	107-13-1	X			<50	<264.8					1	ug/l	lbs	<50	<264.8	1
3V benzene	71-43-2	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
4V bis (Chloromethyl) Ether	542-88-1	N/A*														
5V bromoform	75-25-2	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
6V carbon tetrachloride	56-23-5	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
7V chlorobenzene	108-90-7	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
8V chlorodibromomethane	124-48-1	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
9V chloroethane	75-00-3	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
10V 2-chloroethylvinyl ether	110-75-8	X			<10	<23.6					1	ug/l	lbs	<10	<23.6	1
11V chloroform	67-66-3	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
12V dichlorobromomethane	75-27-4	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
13V dichlorodifluoromethane	75-71-8	N/A*														
14V 1,1-dichloroethane	75-34-3	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
15V 1,2-dichloroethane	107-06-2	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
16V 1,1-dichloroethylene	75-35-4	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
17V 1,2-dichloropropane	78-87-5	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
18V 1,3-dichloropropylene	542-75-6	X			<5.0	<11.8					1	ug/l	lbs	<5.0	<11.8	1
19V ethylbenzene	100-41-4	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
20V methyl bromide	74-83-9	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
21V methyl chloride	74-87-3	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
22V methylene chloride	75-09-2	X			<25	<59.3					1	ug/l	lbs	<25	<58.9	1
23V 1,1,2,2-tetrachloroethane	79-34-5	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
24V tetrachloroethylene	127-18-4	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
25V toluene	108-88-3	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
26V 1,2-trans-dichloroethylene	156-60-5	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
27V 1,1,1-trichloroethane	71-55-6	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
28V 1,1,2-trichloroethane	79-00-5	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
29V trichloroethylene	79-01-6	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
30V trichlorofluoromethane	75-69-4	N/A*														
31V vinyl chloride	75-01-4	X			<5.0	<12.3					1	ug/l	lbs	<5.0	<11.8	1
32V tributyltin (Note 3)		X			<0.0019	<0.0045					1	ug/l	lbs	<0.0020	<0.0047	1

ENCINA POWER STATION
NPDES PERMIT (CA0001350) RENEWAL APPLICATION (3/31/11)
EPA NPDES Application Form 2C - Section V, Part B

EPA ID No. CAT 000 618 900															
V. Intake and Effluent Characteristics															
Part B.														Outfall No. 001	
Pollutant	CAS No.	Mark X		Effluent							Units		Intake		
		Believed Present	Believed Absent	Maximum Daily Value		Maximum 30 Day Value		Long Term Avrg Value		No. of Analyses			Long Term Avrg Value		No. of Analyses
				Conc	Mass	Conc	Mass	Conc	Mass		Conc	Mass	Conc	Mass	
a. Bromide	24959-67-9	X		4.3	5.1					1	mg/L	tons	4.65	5.5	1
b. Chlorine, Total Residual		X		<40	<265.4	<40	<123.8	<40	<70.8	52	ug/l	lbs	<40	<94.2	1
c. Color		X		<2	N/A					1	color units	N/A	<2	N/A	1
d. Fecal Coliform		X		<2	N/A					1	MPN/100ml	N/A	<2	N/A	1
e. Fluoride	16984-48-8	X		<0.010	<23.6					1	mg/L	lbs	<0.010	<23.6	1
f. Nitrate-Nitrite (as N)		X		<0.010	<23.6					1	mg/L	lbs	<0.010	<23.6	1
g. Nitrogen, Total Organic (as N)		X		0.59	1,390					1	mg/L	lbs	0.59	1,390	1
h. Oil and Grease		X		5.8	38,482	5.8	17,958	5.1	9,023	12	mg/L	lbs			
i. Phosphorus, (as P) Total	7723-14-0	X		<0.060	<141.4					1	mg/L	lbs	<0.060	<141.4	1
j(1). Radioactivity: Alpha, Total			X												
j(2). Radioactivity: Beta, Total			X												
j(3). Radioactivity: Radium, Total			X												
j(4). Radioactivity: Radium 226, Total			X												
k. Sulfate (SO4)	14808-79-8	X		2700	3,181					1	mg/L	tons	2600	3,063	1
l. Sulfide (as S)		X		<0.050	<117.8					1	mg/L	lbs	<0.050	<117.8	1
m. Sulfite (as SO3)	14265-45-3	X		<2.0	4,712					1	mg/L	lbs	<2.0	<4,712	1
n. Surfactants		X		0.07	165					1	mg/L	lbs	0.1	236	1
o. Aluminum, Total	7429-90-5	X		0.061	144					1	mg/L	lbs	0.28	660	1
p. Barium, Total	7440-39-3	X		<0.40	<942.4					1	mg/L	lbs	<0.40	<942.4	1
q. Boron, Total	7440-42-8	X		3.1	3.7					1	mg/L	tons	3	3.5	1
r. Cobalt, Total	7440-48-4	X		<0.20	<471.2					1	mg/L	lbs	<0.20	<471.2	1
s. Iron, Total	7439-89-6	X		0.16	377					1	mg/L	lbs	0.33	777	1
t. Magnesium, Total	7439-95-4	X		1100	1,296					1	mg/L	tons	1100	1,296	1
u. Molybdenum, Total	7439-98-7	X		<0.020	<47.1					1	mg/L	lbs	<0.020	<47.1	1
v. Manganese, Total	7439-96-5	X		0.011	26					1	mg/L	lbs	0.013	30.6	1
w. Tin, Total	7440-31-5	X		<0.20	<471.2					1	mg/L	lbs	<0.20	<471.2	1
x. Titanium, Total	7440-32-6	X		<0.050	<117.8					1	mg/L	lbs	<0.050	<117.8	1

Note:

1) "<" indicates that the pollutant concentration was not detected. For these pollutants, the detection limit is reported in the concentration column. For the purpose of calculating mass emissions for this table, the detection limit was utilized as the concentration where the pollutant was not detected. Such substitution should not be used for the purpose of determining compliance with effluent limits.

2) Mass emissions were calculated using the flow during the actual sampling period:
For Grab Samples - 282.3 on March 8, 2011
For Monthly Sampling - Daily Maximum, 795 MGD
- Maximum 30 Day, 371 MGD
- Average for Year 212 MGD

3) N/A - not applicable

ENCINA POWER STATION
NPDES PERMIT (CA0001350) RENEWAL APPLICATION (3/31/11)
EPA NPDES Application Form 2C - Section V, Part A

EPA ID No. CAT 000 618 900

V. Intake and Effluent Characteristics

Outfall No. 001

Part A.

Pollutant	**Effluent**							**Units**		**Intake**		
	Maximum Daily Value		**Maximum 30 Day Value**		**Long Term Avrg Value**		**No. of Analyses**			**Long Term Avrg Value**		**No. of Analyses**
	Conc	**Mass**	**Conc**	**Mass**	**Conc**	**Mass**		**Conc**	**Mass**	**Conc**	**Mass**	
a. Biochemical Oxygen Demand	2	2.36			2	1.77	1	mg/L	tons	3	3.53	1
b. Chemical Oxygen Demand	1700	2,003			1700	1,504	1	mg/L	tons	1600	1,885	1
c. Total Organic Carbon	<0.50	<1,178			<0.50	<885	1	mg/L	tons	<0.50	<1,178	1
d. Total Suspended Solids	6.3	16.68			6.3	5.57	12	mg/L	tons	6.8	6.02	12
e. Ammonia (as N)	0.11	0.0003			0.11	0.0001	2	ug/l	tons	0.11	0.0003	1
f. Flow	Value=795		Value = 371		Value = 212		365	MGD		Value = 212		365
g. Temperature (winter)	Discharge Value = 21.0		Value = 17.5		Value = 16.3		90	Deg - C		Value = 15.2		90
h. Temperature (summer)	Discharge Value = 24.9		Value = 20.7		Value = 20.2		92	Deg - C		Value = 19.4		92
i. pH	Min=7.95	Max=8.17	Min = NA	Max = NA	Avearage = 8.08		12	Standard Units		8.12	--	12

Note:

1) "<" indicates that the pollutant concentration was not detected. For these pollutants, the detection limit is reported in the concentration column. For the purpose of calculating mass emissions for this table, the detection limit was utilized as the concentration where the pollutant was not detected. Such substitution should not be used for the purpose of determining compliance with effluent limits.

2) Mass emissions were calculated using the flow during the actual sampling period, i.e.;

	Effluent Estimates		Intake Estimates		
Maximum Daily Average for Year	795	MGD		Intake Estimate	
Average for Year	212			212	MGD
6/9/2010	289.5	MGD	6/9/2010	289.5	MGD
10/13/2010	634.6	MGD	10/12/2010	634.5	MGD
3/8/2011	282.3	MGD			

3) Flow information is based upon daily discharge flows from January 1, 2010 to December 31, 2010.

4) Temperature information is based upon daily average temperatures from:
- * Summer - July 1 to September 30, 2010
- * Winter - January 1 to March 31, 2010

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	**MSDS Listed Chemicals**	**Non-MSDS Listed Chemicals**
Highflux Cleaner A	King Lee	Mineral Acid Surface Active Agents	2-Butoxy ethanol
KL 7330	King Lee	Proprietary Surfactants Organic Acids	
Stormwater			
Roundup Herbicide	Monsanto	Glyphosate as isopropylamine salt	
Poast	BASF	Sethoxydim Xylene Naphthalene Petroleum Hydrocarbons	
Princep 4G	CIBA-GEIGY	Simazine plus surfactant	
XL 2G Herbicide	Dow Elanco	Benefin Oryzalin	
Treflan 5G Herbicide	Dow Elanco	Trifuralin Kerosene	
Orthene 75S	Cevron	O,S-Dimethyl acetylphosphoramidothioate	
Embark 2S	PBI/Gordon	Diethanolamine salt of mefluide	
Desalination Pilot Plant			
Ferric Chloride			
Sulfuric Acid			
Sodium Hydroxide (50%)			
Hydrochloric Acid (32%)			
Cytec Polymer (0.25%)			
Sodium Bisulfite (10%)			
Superfloc (0.05%)			
Vitec 3000 (2.5%)			

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	**MSDS Listed Chemicals**	**Non-MSDS Listed Chemicals**
Hi-Chem HMP	Hill Brothers	Sodium dimethyldithiocarbamate	
OTHER SOURCES			
Seawater R.O. Pre-Filtration			
Nalcolyte 8102	Nalco	Sodium Chloride Polyquaternary Amine	
Nalcolyte 8103	Nalco	Polyquaternary Amine	
Ferralyte 8130	Nalco	Ferric Sulfate Sulfuric Acid Polyquaternary Amine	
Ultrion 8156	Nalco	Aluminum Phosphate Aluminum Hydroxychloride Calcium Chloride Polyquaternary Amine Chloride	
Seawater R.O. Pretreatment			
Sodium Hypochlorite	generic	Sodium Hypochlorite	
EL-5600 - Anionic	Nalco	Anionic Copolymer	Polycarboxylates
Flocon 200	Pfizer		Antiscalant/Dispersant
Sulfuric Acid	generic	Sulfuric Acid	
Sodium Bisulfite	generic	Sodium Bisulfite	
Seawater R.O. Cleaning			
Floclean 103A	Argo Scientific	Detergent/Chelant Nitrilotriacetic Acid	
Floclean 107	Pfizer	Polyacrylic Surfactant Alkyl Sulfonic acid Polycarboxylic Acid	
Sulfamic Acid	generic	Sulfamic Acid	
Citric Acid	generic	Citric Acid	
Diamite Acid Cleaner	King Lee	Inorganic & Organic Acids	

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	**MSDS Listed Chemicals**	**Non-MSDS Listed Chemicals**
		Lead (<0.25ppm)	
Ammonium Bicarbonate M87	Hydrochem	Ammonium Bicarbonate	
Hypochlorinator Cleaning			
Hydrochloric Acid	generic	Hydrochloric Acid	
Soda Ash	generic	Soda Ash	
Air Preheater and Boiler Tube Fireside Washes - Fuels			
Fuel oil #6	Chevron	Mixture of Petroleum Residual/Cutter Stock	
#2 Diesel Fuel	Powerline Oil Co.	Distillate	
#2 Diesel Fuel	Union Oil Co.	Distillate	
Natural Gas	Southern Cal. Gas	Methane Ethane Propane Butane	Cyclic sulfide (odorant)
Metal Cleaning Waste Treatment			
Lime	generic	Calcium Hydroxide	
Synth Polymer Anionic H144	Hydrochem	Synthetic Polymer	
Sulfuric Acid	generic	Sulfuric Acid	
Muriatic Acid	generic	Hydrochloric Acid	
Organic Chelant M268	Hydrochem	Sodium hydroxide Sodium carbonate Sodium chloride	
Soda Ash	generic	Sodium carbonate	
Diatomaceous Earth	generic	Diatomaceous earth	
Sodium Bisulfite	generic	Sodium bisulfite	
Anionic Polymer	generic	anionic polyelectrolyte	
Nalclear 7763	Nalco	Ethoxylated octylphenol paraffinic/naphthenic	
1125L	Betz	Isoparaffinic petroleum distillate	

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	MSDS Listed Chemicals	Non-MSDS Listed Chemicals
Sulfamic Acid	generic	Sulfamic Acid	
Disodium Phosphate	generic	Disodium Phosphate	
Trisodium Phosphate	generic	Trisodium Phosphate	
Ammoniated Citric Acid	mixed at point of use	Aqueous Ammonia Citric Acid	
Formic Acid L6	Hydrochem	Formic Acid	
		Acetic Acid	
Hydroxyacetic Acid L22	Hydrochem	Hydroxyacetic Acid	
Sodium Nitrite M43	Hydrochem	Sodium Nitrite	
CL 362	Nalco	Benzalkonium Chloride	
CL 37	Nalco	Polydimethylsiloxane Emulsion	
Chelant Cleaning			
Vertan 675	Hydrochem	Ammoniated EDTA Citric & Formic Acids Hydroxyacetic Acid Hydrochloric Acid Sulfuric Acid	
Aqua Ammonia M11	Hydrochem	Ammonium Hydroxide	
Ammonium Bicarbonate M87	Hydrochem	Ammonium Bicarbonate	
Corrosion Inhibitor A251	Hydrochem	Isopropanol Thiourea Inorganic Halogen	
Liquid Passivating Agent M240	Hydrochem	Hydrogen Peroxide	
Vertan Chelant V665	Hydrochem	Diammonium ethylenediaminetetraacetate	
Versene (R) Tetraammonium EDTA Chelating Agent	Hydrochem	Tetraammonium salt of ethylenediaminetetraacetic acid	
Low Hazard Inhibitor A300	Hydrochem	Proprietary aqueous solution of organic surfactants	
Oxygen O2 Refrigerated Liquid	generic	Cryogenic Oxygen	
Hydrogen peroxide	Van Waters & Rogers	Hydrogen Peroxide Arsenic (<0.05ppm) Cadmium (<0.05ppm) Chromium (<0.1ppm)	

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	MSDS Listed Chemicals	Non-MSDS Listed Chemicals
Citric Acid/Surfactant Solution	Hach	Citric Acid, Anhydrous Other Components (<1%) Demineralized Water	
Service Water			
Sodium Hydroxide	generic	Sodium Hydroxide	
Nalco 7320 Microbiocide	Nalco	2,2-dibromo-3-nitirlopropionamide Polyethylene glycol	
Trac 107	Nalco	Sodium Hydroxide Sodium Tetraborate	
Trac 108	Nalco	Sodium Nitrite Inorganic Salt	
Lube Oil			
Turbine Oil (DTE)	Mobil	Distillates (Petroleum)	
METAL CLEANING WASTEWATER			
Acid Cleaning			
Hydrochloric Acid H28	Hydrochem	Hydrochloric Acid	
Sodium Bromate M63	Hydrochem	Sodium Bromate	
Copper Complexer M71	Hydrochem	Thiourea	
Iron Stabilizing Agent L-1	Hydrochem	Citric Acid	
Corrosion Inhibitor A120	Hydrochem	Ethylene Glycol Formaldehyde 1-Hexyn-3-ol Surfactants	
Caustic Soda 50%	generic	Sodium Hydroxide Sodium Carbonate Sodium Chloride	
Soda Ash M3	Hydrochem	Sodium Carbonate	
Intensifyer Y1	Hydrochem	Ammonium Biflouride	

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	MSDS Listed Chemicals	Non-MSDS Listed Chemicals
		Hydrazine	
Automated Sampler Reagents			
Anionic Surfactant Solution	Hach	Decyl(sulfophenoxy) benzenesulfonic Acid, Disodium Salt Oxybis(desylbezenesulfonic Acid), Disodium Salt Other Components (<1%) Demineralized Water	
Molybdate 3 Reagent for Silica	Hach	Sodium Bisulfate Monohydrate Sulfuric Acid Molybdic Acid Demineralized Water	
Amino Acid Reagent for Phosphate and Silica	Hach	Sodium Metabisulfite Sodium Sulfite Dimethylformamide Other Components (<1%) Demineralized Water	
Amino Acid F Reagent Powder for Series 5000 Silican Analyzer	Hach	Sodium Metabisulfite Fast Amino Acid (Trade Secret)	
Molybdovanadate Reagent for Phosphate	Hach	Sulfuric Acid Ammonium Molybdate Ammonium Metavanadate Other Components (<1%) Demineralized Water	
Sodium Citrate Reagent for Silica	Hach	Sodium Citrate Other Components (<1%) Demineralized Water	
Silica Standard Solution 500 ug/l as SiO2	Hach	Sodium Silicofluoride Other Components (<1%) Demineralized Water	
Amino Acid F Dilution Solvent for Series 5000 Silica Analyzer	Hach	Aminomethylpropanol	
		Demineralized Water	

TABLE 3.1
FORM 2C SECTION VI
Potential Chemicals in Water Discharge

	Manufacturer/Vendor	**MSDS Listed Chemicals**	**Non-MSDS Listed Chemicals**
ONCE THROUGH COOLING WATER			
Sodium Hypochlorite	generic	Sodium Hypochlorite	
Zinc	sacrificial anode	Zinc	
Alfalfa/hay pellets	generic		
Copper/Nickel alloys	generic		Copper/nickel alloys are used in the plant's condenser equipment and may result in discharges of de-minimus quantities of the parent metals to the cooling water
LOW VOLUME WASTEWATER			
R.O. Pretreatment			
Sodium Bisulfite	generic	Sodium Bisulfite	
Sodium Hypochlorite	generic	Sodium Hypochlorite	
Vitec 3000	Avista		Phosphate based antiscalant
Demineralizer			
Sulfuric Acid	generic	Sulfuric Acid	
Sodium Hydroxide	generic	Sodium Hydroxide	
Boiler Water			
356 Corrosion Inhibitor	Nalco	Morpholine Cyclohexylamine	
Powerline	Betz	Morpholine Cyclohexylamine	
Sodium Hydroxide	generic	Sodium Hydroxide	
Disodium Phosphate	generic	Disodium Phosphate	
Trisodium Phosphate	generic	Trisodium Phosphate	
Eliminox	Nalco	Carbohydrazide	

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Asbestos	Pipe insulation (The plant employs precedures to prevent the release of asbestos to the environment)		
Cresol	Fuel oil (may be found in metal cleaning waste)		
Formaldehyde	Boiler corrosion inhibitor		
Strontium	Found in municipal water supply		
Vanadium	Fuel oil (may be found in metal cleaning wastes)		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☑ YES (*list all such pollutants below*) ☐ NO (*go to Item VI-B*)

1M. Antimony, Total (7440-36-0)
2M. Arsenic, Total (7440-38-2)
3M. Beryllium, Total (7440-41-7)
4M. Cadmium, Total (7440-43-9)
5M. Chromium, Total (7440-47-3)
6M. Copper, Total (7440-50-8)
7M. Lead, Total (7439-93-1)
8M. Mercury, Total (7439-97-6)
9M. Nickel, Total (7440-02-0)
10M. Selenium, Total (7782-49-2)
11M. Silver, Total (7440-22-4)
12M. Thallium, Total (7440-28-0)
13M. Zinc, Total (7440-66-6)
14M. Cyanide, Total (57-12-5)
3V. Benzene (71-43-2)
5V. Bromoform (75-25-2)
8V. Chlorodibromomethane (124-48-1)
IIV. Chloroform (67-66-3)
12V. Dichlorobromomethane (75-27-4)
15V. 1,2-Dichloroethane (107-06-2)
19V. Ethylbenzene (100-41-4)
20V. Methyl Bromide (73-84-9)
21V. Methyl Chloride (74-87-3)
22V. Methylene Chloride (75-09-2)
24V. Tetrachloroethylene (127-18-4)
25V. Toluene (108-88-3)
26V. 1,2-TransDichloroethylene (156-60-5)
27V. I, 1,1-Trichloroethane (71-55-6)
28V. I, I ,2-Trichloroethane (79-00-5)
29V. Trichloroethylene (79-01-6)
1A. 2-Chlorophenol (95-57-8)
2A. 2,4-Dichlorophenol (120-83-2)
9A. Pentachlorophenol (87-86-5)
11A. 2,4,6-Trichlorophenol (88-06-2)
1B. Acenaphthene (83-32-9)
2B. Acenaphtylene (208-96-8)
3B. Anthracene (120-12-7)
5B. Benzo (a) Anthracene (56-55-3)
6B. Benzo (a) Pyrene (50-32-8)
7B. 3.4-Benzofluoranthene (205-99-2)
8B. Benzo (ghi) Perylene (191-24-2)
9B. Benzo (k) Fluoranthene (207-08-9)
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)
15B. Butyl Benzyl Phthalate (85-68-7)
16B. 2-Chloronaphthaiene (91-58-7)
18B. Chrysene (218-01-9)
19B. Dibenzo (a,h) Anthracene (53-70-3)
20B. 1,2-Dichlorobenzene (95-50-1)
21B. 1,3-Dichlorobenzene (541-73-1)
22B. 1A-Dichlorobenzene (106-46-7)
24B. Diethyl Phthalate (84-66-2)
25B. Dimethyl Phthalate (131-11-3)
26B. Di-N-Butyl Phthalate (84-74-2)
31B. Fluoranthene (206-44-0)
32B. Fluorene (86-73-7)
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)
39B. Naphthalene (91-20-3)
44B. Phenanthrene (85-01-8)
45B. Pyrene (129-00-0)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(*s*) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
001 * See Note		0	0	0	0	.04 MGD	.18 MGD	0.00

* The values represent Metal Cleaning Wastes and were calculated based on 36 discharge days from 3/1/98 to 2/28/99. Metal cleaning wastes were not generated from 2005 to present.

There are also intermittent discharges associated with Fuel Line/Tank Hydrotests. Hydrotest discharges are project specific. Maximum daily discharge is .900 MGD. Frequency, LTA and total volume are not applicable.

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☑ YES (*complete Item III-B*) ☐ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

CONTINUE ON PAGE 3

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
CAT000618900

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM
2C
NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	33.00	8.00	17.00	117.00	20.00	22.00	Pacific Ocean

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

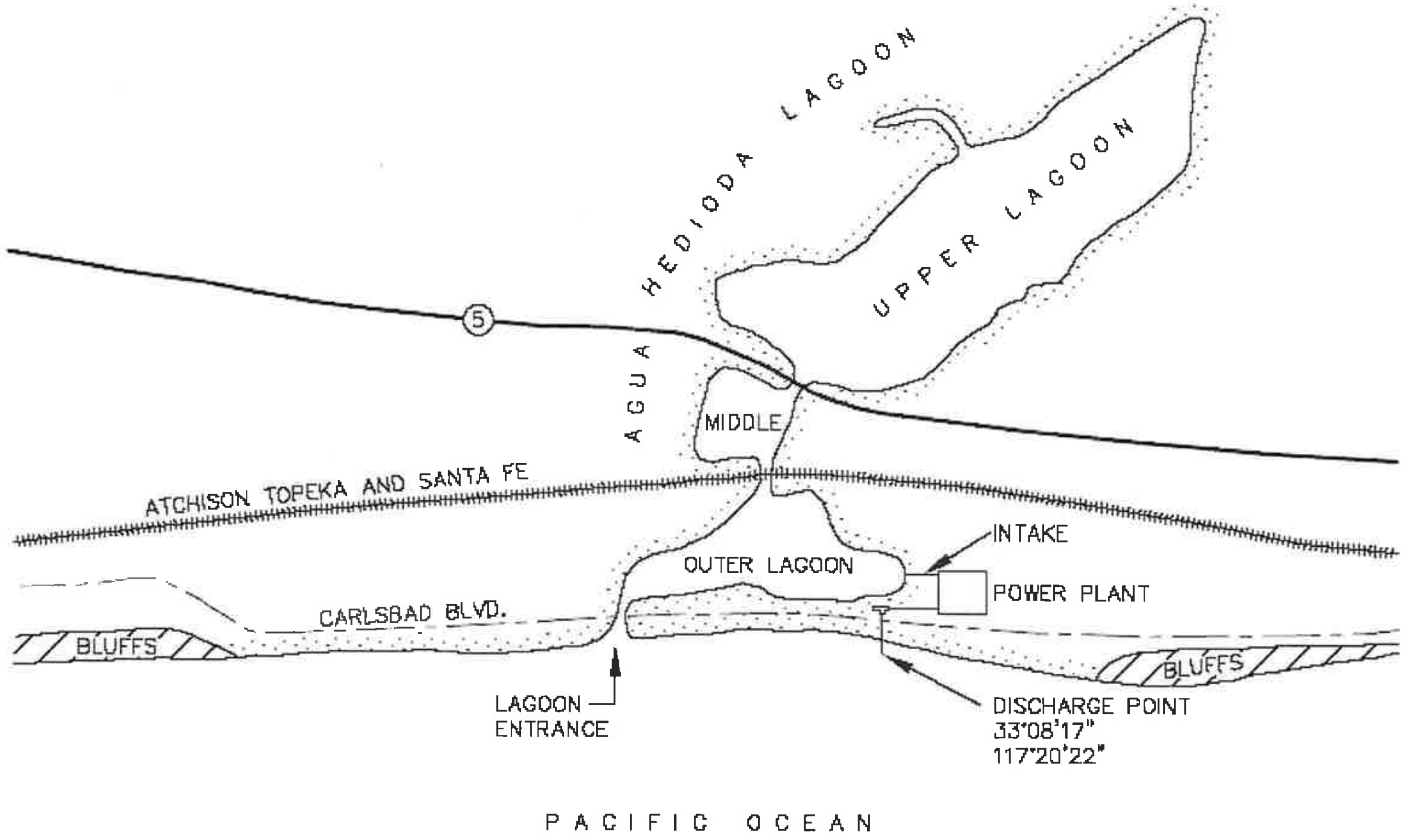
1. OUT-FALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001 * See Note	Non-Contact Cooling Water	857.3 MGD	Screening	1-T	
	Non-Contact Cooling Water (cont'd)		Discharge to Surface Water	4-A	
	Low Volume Waste (Direct Discharge)	1.827 MGD	Discharge to Surface Water	4-A	
	Low Volume Waste Treated	0.2115 MGD	Flotation (Coalescer)	1-H	
	Low Volume Waste Treated (cont'd)		Sedimentation (Coalescer)	1U	
	Low Volume Waste Treated (cont'd)		Discharge to Surface Water	4-A	
	Metal Cleaning Waste	0.7971 MGD	Neutrilization	2-K	
	Metal Cleaning Waste (cont'd)		Chemical Precipitation	2-C	
	Metal Cleaning Waste (cont'd)		Flocculation	1-G	
	Metal Cleaning Waste (cont'd)		Multimedia Filtration	1-Q	
	Metal Cleaning Waste (cont'd)		Discharge to Surface Water	4-A	
	Pump Lubrication Water	0.202 MGD	Discharge to Surface Water	4-A	
	Stormwater Runoff (10yr-24hr)	1.280 MGD	Discharge to Surface Water	4-A	
	Seawater R.O. Brine/Pretreatment	0.864 MGD	Discharge to Surface Water	4-A	
	Fuel Line / Tank Hydrotest	0.900 MGD	Discharge to Surface Water	4-A	
	Seepage & Groundwater Pumping	1.368 MGD	Discharge to Surface Water	4-A	
	Boiler Blowdown	0.372 MGD	Discharge to Surface Water	4-A	
	Freshwater Reverse Osmosis	0.0870 MGD	Discharge to Surface Water	4-A	
	Poseidon pilot desalinization plant	0.288 MGD	Discharge to Surface Water	4-A	

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

* - The flow values are estimated maximum daily flows.

SECTION 3

USEPA Form 2C and Attachments



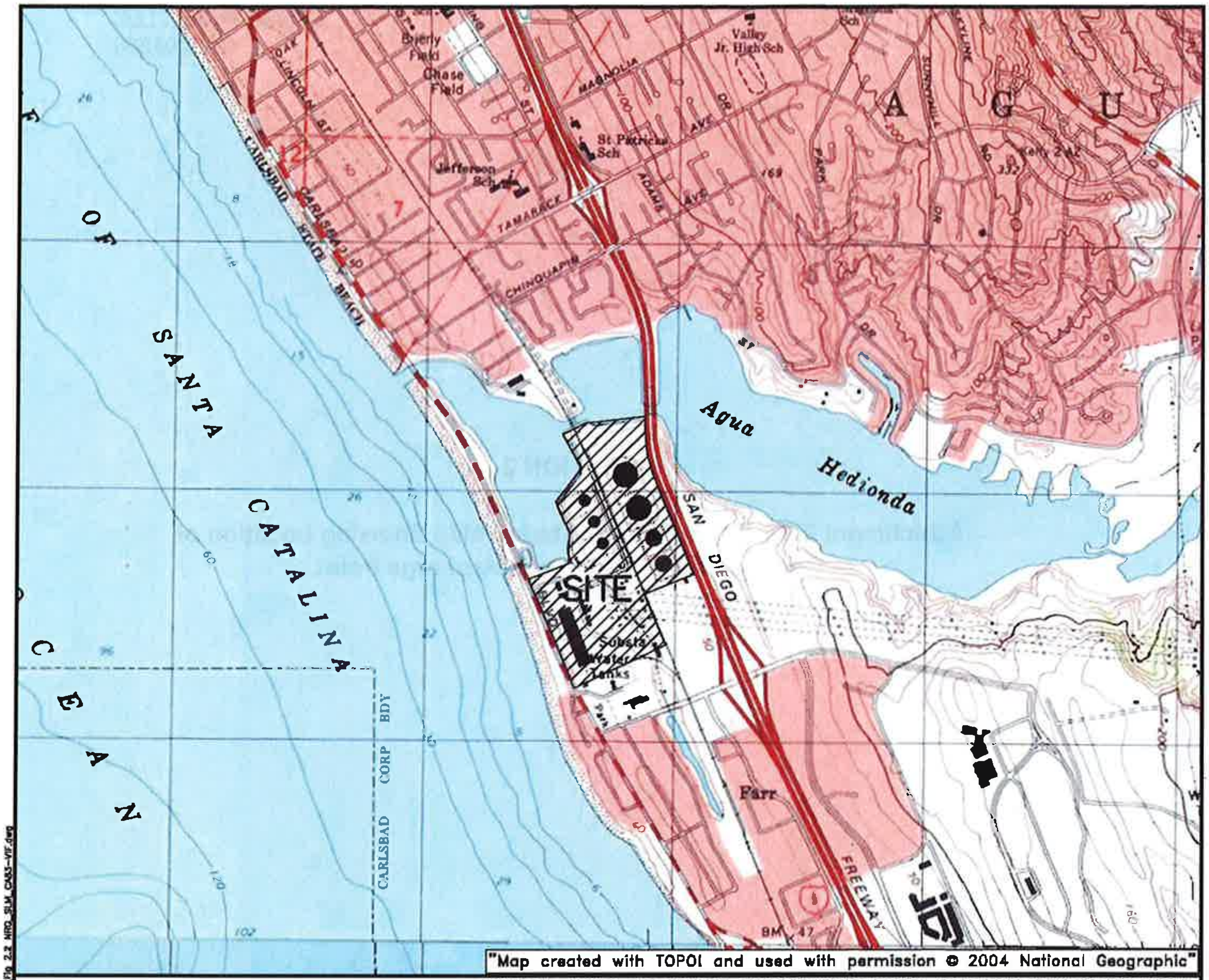
NOT TO SCALE

FOR: CABRILLO POWER I LLC ENCINA POWER STATION 4600 CARLSBAD BOULEVARD CARLSBAD, CALIFORNIA		**MAP SHOWING LOCATION OF COOLING WATER INTAKE AND DISCHARGE POINT**	FIGURE: **2.3**
PROJECT NO: –	DRAWN BY: E. VARELA	CHECKED BY: D. GRASMICK	APPROVED BY: D. GRASMICK	DATE: 3/2011

T:\NRG ENCINA\DOCUMENTS\2011\2011 NPDES RENEWAL DEVELOPMENT\SECTION 2_EPA FORM 1\FIGURES\FIGURE 2.3.DWG

SECTION 2

Attachment 2.3 – Encina Power Station Map Showing Location of Cooling Water Intake and Discharge Point



"Map created with TOPOI and used with permission © 2004 National Geographic"

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAPS, SAN LUIS REY QUADRANGLE

LEGEND

0 2000 4000

APPROXIMATE SCALE (FEET)

FOR:

CABRILLO POWER I LLC
ENCINA POWER STATION

4600 CARLSBAD BOULEVARD
CARLSBAD, CALIFORNIA

SITE LOCATION MAP

FIGURE:
2.2

PROJECT NO:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
–	E. VARELA	L. MORENO	D. GRASMICK	3/2011

T:\NRG Encina\Documents\2011\2011 NPDES Renewal Development\Section 2_EPA Form 1\Figures\FIG 2.2 SLM\Fig 2.2 NRG_SLM_CA65-VIF.dwg

SECTION 2

Attachment 2.2 – Site Location Map

SECTION 2
ATTACHMENT 2.1

EPA Form 1
SECTION X. Existing Environmental Permits

E. Other: California State Lands Commision

Description	Permit No.
Outlet Jetty and Discharge Channel Lease	PRC 1409.1
Beach Sand Disposal Area (Oak Street to Cannon) Lease	PRC 932.1
Inlet Jetty and Channel Lease	PRC 871.1
Offshore Marine Oil Terminal Lease	PRC 791.1

SECTION 2
ATTACHMENT 2.1

EPA Form 1
SECTION X. Existing Environmental Permits

E. Other: CA Department of Toxic Substance Control - Authority to Operate

Description	Permit No.
Conditionally Authorized Hazardous Waste Treatment Permit	CAT000618900

E. Other: County of San Diego Department of Environmental Health

Description	Permit No.
Unified Program Facility Permit (for Hazardous Materials and Waste)	HK07-1139416HK52

E. Other: United States Army Corps of Engineers

Description	Permit No.
Dredge Permit	200100328-SKB

E. Other: Encina Wastewater Authority

Description	Permit No.
Waste Discharge/Chemical Storage Permit; For Class II Discharges to Se	2139

E. Other: California Department of Fish and Game

Description	Permit No.
Oil Spill Contingency Plan Certificate of Approval	06-37-0156
Certificate of Financial Responsibility	20875-00-001

E. Other: City of Carlsbad

Description	Permit No.
Special Use Permit - Lagoon Dredging	06-10

E. Other: California Coastal Commission

Description	Permit No.
Coastal Development Permit - Lagoon Dredging	6-10-046

SECTION 2
ATTACHMENT 2.1

EPA Form 1
SECTION X. Existing Environmental Permits

Other: County of San Diego Air Pollution Control District - Permits to Operate

Description	Permit No.
Boiler #1	000791
Boiler #2	000792
Boiler #3	000793
Boiler #4	001170
Boiler #5	005238
CT 1	001267
CT Starter Engine	970274
Portable Engine (Retired)	972662
Emergency Generator Engine	920894
Portable Engine for Anchor Winch	972663
Dredge Engine	920895
Metals Part Coating	020446
Abrasive Blast Booth	006593
Marine Coating Operation	961265
Remote Reservoir Cleaner (Retired)	941134
Remote Reservoir Cleaner (Retired)	941133
Abrasive Blast Machine	930938
Abrasive Blast Machine	001168
Emergency Flood Pump	960330
Title V Operating Permit	974488

E. Other: County of San Diego Air Pollution Control District - Other Permits

Description	Permit No.
Title IV Acid Rain Permit	ORIS Code 302
California and Federal Greenhouse Gas Reporting	--------
Certificate of Exemption - Turbine Cleaning	976225

E. Other: Ca State Water Resources Control Board / San Diego Regional Water Quality Control Board

Description	Permit No.
General WDRs for Maintenance Dredge/Fill Projects	Order No. 96-32
Industrial Activities Stormwater General Permit	97-03-DWQ; WDID No. 9-37S015020

Attachment 3.2

NPDES Permit Renewal Application
NPDES NO. CA0001350

Facility Operation Description
for the Cabrillo Power I LLC,
Encina Power Station, San Diego County

1.0 Facility Description

The Cabrillo Power I LLC, Encina Power Station is located at 4600 Carlsbad Boulevard, in the southwest sector of the City of Carlsbad, California, adjacent to the Agua Hedionda Lagoon on the Pacific Ocean. The Encina Power Station is in Section 18, T12S, R4W, and SBBM.

The Encina Power Station has been owned and operated by Cabrillo Power I LLC (Cabrillo) since May 22, 1999. The power plant was previously owned by San Diego Gas and Electric Company (SDG&E).

The Encina Power Station (EPS or Encina) is a fossil-fueled steam electric power generating station that began operation in 1954. Thermal energy provided by the combustion of the fossil-fuels is used to generate steam to drive five (5) steam turbine generators. The Encina Power Station also has one (1) gas turbine generator. The combined thermal energy output capacity for the plant is 965 megawatts. Waste heat and other wastes generated at the Encina Power Station are discharged to the Pacific Ocean.

Cabrillo is permitted for a maximum combined discharge flowrate of 863.142 MGallons/Day. This includes 857.29 Million Gallons per Day (MGD) of once through cooling water. The remainder consists of low volume wastes, metal cleaning wastes, and stormwater runoff. Domestic wastewater is discharged to the municipal sewer system for treatment and disposal. A water flow diagram is identified as Figure 3.1 within Attachment 3.1 to EPA Form 2C. This figure shows maximum flowrate of each waste stream.

Encina combined cooling water flow averages 511.538 MGallons/Day. Cooling water flow accounts for 511.250 MGallons/Day of this total. On average, 0.288 MGallons/Day of waste reaches the combined cooling water flow.

Cooling water is withdrawn from the Pacific Ocean via the Agua Hedionda Lagoon. The cooling water intake structure complex is located approximately 2200 feet from the ocean inlet to the lagoon. Variations in the water surface due to tide are from a low of -5.07 feet to a high of +4.83 feet (elevation 0 being mean sea level, msl). The intake structure is located in the lagoon, in front of the generating units.

The mouth of the intake structure is 49 feet wide. As the water flows into the intake structure, it passes through trash racks (metal bars about 3 ½ inch apart) which prevent passage of large debris. The tunnel tapers into two, 12-foot wide intake tunnels. From these tunnels, the cooling water enters four six-foot wide conveyance tunnels. Cooling water for conveyance tunnels 1 and 2/3 passes through two vertical traveling screens to prevent fish, grass, kelp, and debris from entering pump intakes 1, 2, and 3. Conveyance tunnels 4 and 5 carry cooling water to intake 4 and 5, respectively. Traveling water screens are located at the intake of pump 4 and the intake of pump 5.

Attachment 3.1
Flows, Sources of Pollution, Treatment Technologies

SECTION 3

Attachment 3.1 – Section II.A and II.B – Flows, Sources of Pollution, and Treatment Technologies

EPA FORM 2C
ATTACHMENT 3.1

SECTION II.A AND II.B – FLOWS, SOURCES OF POLLUTION AND TREATMENT TECHNOLOGIES

Introduction

This attachment addresses sections II.A and II.B, Flows, Sources of Pollution, and Treatment Technologies in EPA Form 2C. As required in section II.A, Figure 3.1 is a water mass balance schematic and depicts the plant's discharge sources with their associated estimated maximum daily discharge flows. Figure 3.2, is a functional schematic of the "low volume wastes" (LVW) and "metal cleaning wastes" (MCW). Within Figure 3.2, reference numbers are provided for each treatment system component and are referred to within the sections describing LVW and MCW. In addition, Table 3.2 provides additional descriptive information on the treatment components associated with LVW and MCW that are also keyed to the reference numbers on the functional schematic, Figure 3.2.

Once Through Cooling Water (Figure 3.1)

Cooling Water – Cooling water is withdrawn from Agua Hedionda Lagoon at a shoreline structure. Trash racks (metal bars, 3½-inch apart) screen out larger fish and debris. Traveling vertical screens (with 3/8-inch mesh) follow the trash racks and prevent through passage of smaller fish and debris. The screens are backwashed, using seawater, into a trough and the fish, organic material and debris flow into the screen well baskets where they are accumulated. Screen backwash water is returned to the cooling water flow. Accumulated organic material from the bar racks and traveling screens is discharged to the cooling water discharge pond. Non-contact cooling water passes through the condensers and heat exchangers and then returns to the Pacific Ocean via a discharge channel.

Circulating Water Pump Lubrication – The circulating water pumps have bronze bearings that are sealed and lubricated with either filtered seawater or fresh water. Where filtered seawater is used for this purpose, automatic backwash filters are used to prevent sand and shells from clogging the system's strainers. Backwash water is discharged directly to the cooling water system.

Hypochlorite Generation – The plant produces its own sodium hypochlorite for use in chlorination of the cooling water system. Make-up water is drawn from the cooling water and passed through the generator. The product is then used for the intermittent chlorination of the condensers and heat exchangers. A small stream of once through non-contact cooling water is used to cool the generator's DC rectifier and is discharged to the cooling water system. Small volumes of seawater are drained directly to the cooling water system from the generators during periodic maintenance activities.

Heat Treatment - Encrusting organisms in the early stages of development are small enough to pass through the trash racks and screens, and enter the intake tunnels. The encrusting organisms can attach themselves to the tunnel walls, traveling water screens, and other parts of the cooling water system. If not removed, the encrusting organisms grow and accumulate at a rate of approximately 1,000 cubic yards over a 6-month period. These accumulations restrict the flow of cooling water to and through the condensers, causing a rise in the condenser operating temperature and the temperature of the discharged once-through cooling water. Although intermittent chlorination is practiced at Encina, only the condensers and salt-water heat exchangers are chlorinated. Due to the ability of encrusting organisms to withstand intermittent exposure to chlorine, effective control of biofouling in the cooling water intake structures via chlorine would require continuous chlorination of the entire intake system. Continuous chlorination is not considered a viable option because it requires the addition of large volumes of chlorine on a continuous basis. Consequently, in order to prevent encrusting organisms from developing to any significant size or quantity, a thermal tunnel recirculation treatment procedure (heat treatment procedure) is used periodically (at approximately five to eight week intervals). The actual frequency of heat treatment is determined by by the Heat Treatment Decision Diagram, shown in Figure 3.3. The intake temperature is used to calculate growth of a mussel species called *Mytilus Edulis.*

The treatment kills the encrusting organisms, which release from the surfaces and wash through the condensers to the ocean with the cooling water discharge, thus reducing the need for maintenance outages for manual cleaning of the once-through cooling water inlet tunnels and condensers. This practice also helps to maintain a lower possible temperature rise across the condensers, thereby improving plant efficiency, and reducing normal plant cooling water discharge temperatures.

Although many of the encrusting organisms, which release from the surfaces, are washed through the condensers to the ocean, over time an accumulation of shells and sediment occurs in the cooling water tunnels and forebays. Periodically, the tunnels are drained and these shells and sediment are removed and discharged directly to the outfall.

Heat treatment is performed by restricting the flow of cooling water from the lagoon and recirculating the condenser discharge water through the conveyance tunnels and condensers until the inlet water temperature is increased to the treatment temperature. Recirculation of the cooling water is accomplished through a cross-over tunnel located approximately 120 feet from the discharge, adjacent to the intake channel. The temperature is raised to 105°F in the intake tunnels and maintained (heat soak) for approximately two hours, which has proven to be adequate in killing and removing encrusting organisms. Each time the cooling water passes through the condensers, it picks up additional heat rejected from the steam cycle. During a heat treatment procedure, each pass can add up to 15°F to the cooling water temperature, resulting in effective treatment temperatures of up to 105°F at the intake tunnels. Because the cooling water continues to circulate and the generator units continue to operate, the post-condenser temperature in the discharge channel can reach 120°F. To maintain the treatment temperature of up to 105°F during the heat soak phase (and to prevent the continued cooling water heat build-up), additional lagoon water is blended into the cooling water system and a corresponding volume of water is discharged to the Pacific Ocean to balance against the heat added at the condensers. The target heat treatment duration is 2 hours and represents the period of time at the target temperature (105°F in the intake tunnels) and not the time required to reach the target temperature and the time to return to normal operation. The total time required for the heat treatment procedure, including temperature buildup and cool-down, is approximately seven to nine hours. Because the cooling water discharge is restricted during the heat treatment in order to recirculate the heated effluent, the plant's discharge flow rate is reduced to approximately 7 to 45 percent of its full flow rate during normal operations.

Cooling Water Tunnels – Cleaning of the cooling water tunnels and pump forebays is conducted periodically to remove accumulated shells and sediment. Water from the tunnel being cleaned is pumped to the cooling water discharge tunnel. Materials cleaned from the tunnels and forebay are discharged to the cooling water discharge system.

Low Volume Wastewater (Figure 3.2)

Multiple sources of wastewater contribute to the plant's combined LVW discharge to the cooling water system. While certain wastestreams (i.e., boiler blowdown, reverse osmosis brine, Unit 4 subdrain sump and Unit 5 subdrain sump) discharge directly to the cooling water system without treatment, the other LVW wastestreams are routed to the plant's LVW treatment facility for treatment prior to discharge to the cooling water system. Three of these wastestreams (i.e., demineralizer regeneration wastewater, reverse osmosis membrane cleaning wastewater, and reverse osmosis pretreatment sand filter backwash wastewater) are also routed to a "self-neutralization" tank prior to being routed to the LVW treatment facility. The LVW treatment system was designed to remove total suspended solids, and oil and grease, in order to ensure the plant's compliance with the Stream Electric Guidelines' effluent limits for LVW.

The LVW treatment system is comprised of two 100 percent capacity wastewater treatment trains. Each train is composed of a LVW Surge & Equalization Tank (LVW Surge Tank) [A1, A2] to accommodate the various intermittent wastewater flows and flow rates from the plant, and an Oil/Solids Coalescer and Separator Unit (Coalescer) [A3, A4].

Demineralizer regeneration wastewaters are first routed to the Self Neutralization Tank [A8] for self-neutralization prior to being routed to the LVW Surge Tanks [A1, A2].

The reverse osmosis membranes are cleaned infrequently (approximately 1-2 times/year) to remove accumulated scale that forms from minerals contained in the municipal water supply. The reverse osmosis pretreatment sand filters are backwashed approximately once every six weeks to remove suspended particles that accumulate from the municipal water supply. These wastewaters are routed through the Self Neutralization Tank [A8] prior to being routed to the LVW Surge Tanks [A1, A2].

When the water level in the LVW Surge Tank [A1, A2] in service reaches a set level, the wastewater from the tank is routed through the Coalescer [A3, A4] to remove oil and solids from the wastewater. The flow of wastewater continues until the water level in the LVW Surge Tank [A1, A2] reaches a set minimum level. Effluent from the LVW treatment system is discharged to the plant's cooling water system in conformance with the plant's NPDES permit.

The LVW treatment system is designed with continuous turbidity process monitoring that alarms at 30 NTU and shuts the discharge down to 100 NTU. Plant operators respond to an alarm condition and re-route the wastewater, if necessary, for re-treatment in the LVW system or filtration in the MCW treatment facility.

Solids removed from the Coalescers [A3, A4] are routed to a LVW Sludge Tank [A7] for temporary holding. Oil removed by the Coalescers [A3, A4] is routed to Waste Oil Drums [A5, A6] for temporary holding. Oil can also be skimmed off the surface of the wastewater in the LVW Surge Tanks [A1, A2] as necessary.

As a result of the plant's housekeeping practices, the amount of solids and oil that reach the treatment facility is greatly minimized. Consequently, very little oil or solids accumulate at the LVW treatment facility. Solids that do accumulate in the LVW Sludge Tank [A7] are periodically routed to the MCW treatment facility for treatment and are contained in the MCW filter cake that is disposed off-site. Oil removed from the system is managed as used oil and is accumulated on-site with other used oil from the plant and is disposed of appropriately.

Metal Cleaning Wastewater (Figure 3.2)

Multiple sources of wastewater contribute to the plant's treated MCW discharge to the cooling water system. The MCW treatment facility was designed for the removal of iron, copper, total suspended solids, and oil and grease, in order to ensure the plant's compliance with the Steam Electric Guidelines' effluent limits for MCW.

Acid cleaning wastewaters are routed through a DTSC Transportable Treatment Unit (TTU) [B12] for pH adjustment prior to being routed to the MCW Storage and Equalization Tanks [B1, B2]. During processing, these tanks are recirculated to thoroughly mix the collected water in order to allow the optimum wastewater processing. Removal of the metals from these wastewaters is accomplished by precipitating the metals in their hydroxide form. The wastewaters from the MCW Storage and Equalization Tanks [B1, B2] are routed to Flash Tank 1 [B3] where the pH is adjusted using caustic to a pH of approximately 10-10.5 to effect the precipitation of the dissolved metals. In the initial stages of treatment, soda ash and/or lime are also added at Flash Tank 1 [B3] to create the seed crystals to promote flocculation of the particles in the chemically treated source water. From Flash Tank 1 [B3], the wastewater flows to the Reactivator [B4] where precipitation occurs aided by the injection of a polymer to promote flocculation and clarification. Once a sludge blanket is formed in the reactivator, the lime and soda ash additions in Flash Tank 1 [B3] are stopped. The supernatant from the Reactivator [B4] is adjusted for pH as necessary in flash Tank 2 [B5] prior to filtration in the Multimedia Filter

[B6]. The filtered water is collected in the Treated Wastewater Storage Tanks [B7, B8] and held until test results demonstrate their compliance with the technology-based limits in the plant's NPDES permit. Treated wastewater in the Treated Wastewater Storage Tanks [B7, B8] that meet the discharge limits are discharged to the plant's cooling water system; those that do not meet the discharge limits are routed back to the MCW Storage and Equalization Tanks [B1, B2] for retreatment. Adjustment of the pH in the above steps is performed by the addition of either sulfuric acid or caustic soda.

The underflow from the Reactivator [B4] is discharged to the Sludge Thickener [B9] for gravity settling of the solids. Solids from the Sludge Thickener [B9] are pumped to the Sludge Contact Tank [B10] for preparation for dewatering in the Filter Press [B11] (note that during periods of low system usage, the under flow from Reactivator [B4] is fed directly into the Sludge Contact Tank [B10]). Conditioned sludge from the Sludge Contact Tank [B10] is pumped into the Filter Press [B11] for dewatering.

Supernatant from the Sludge Thickener [B9], backwash from the Multimedia Filter [B6] and filtrate from the Filter Press [B11] is returned to the MCW Storage and Equalization Tanks [B1, B2] via the backwash sump for treatment.

Wastewater generated from chelant (e.g., EDTA) boiler cleanings are processed in a manner similar to that described for acid cleaning wastewaters, with the exceptions that chelant cleaning wastewaters: 1) are not routed through a TTU; 2) are adjusted to a pH of 12.5 at Flash Tank 1; and 3) also require the use of proprietary chemicals and lime to precipitate copper and iron in the reactivator.

Wastewater generated from boiler and air heater washes are processed in a manner similar to that described for acid cleaning wastewater, with the exception that wash wastewaters are not routed through a TTU.

Hypochlorinator cleaning wastewaters are initially collected in Tank T2 [B13] prior to being routed directly to the MCW Storage and Equalization Tanks [B1, B2]. They are then processed in a manner similar to that described for acid cleaning wastewaters.

A list of chemicals used in the metal cleaning waste treatment processes is included in the NPDES permit renewal application.

TABLE 3.2
CABRILLO POWER I LLC
ENCINA POWER PLANT
TANK REFERENCE LIST
MARCH 2011

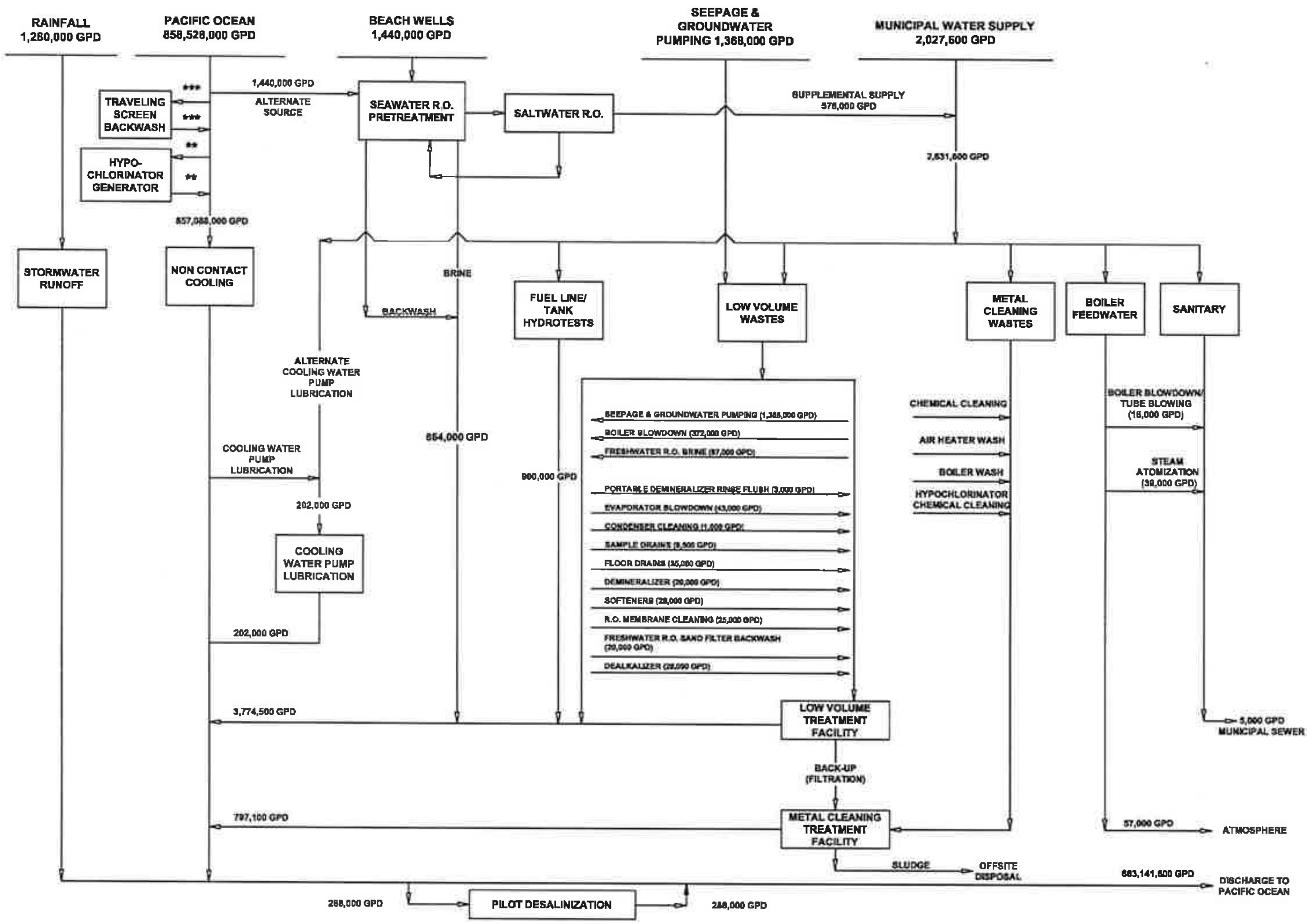
TANK REF#	Tank DESCRIPTION	TANK TYPE	CONSTRUCTION MATERIALS	TANK SIZE	TANK VOLUME	ACTIVITY
A1	LVW surge & equalization Tank 1	Above ground open top low pressure	Steel	20' diameter x 24' height	56,300 gallons	Surge & equalization
A2	LVW surge & equalization Tank 2	Above ground open top low pressure	Steel	20' diameter x 24' height	56,300 gallons	Surge & equalization
A3	Oil/solids coalescer & separator unit	Above ground closed top vented to atmos	Steel	Approximately 8'l x 2'w x 8'h	100 gpm maximum	Oil/solids removal
A4	Oil/solids coalescer & separator unit	Above ground closed top vented to atmos	Steel	Approximately 8'l x 2'w x 8'h	100 gpm maximum	Oil/solids removal
A5	Waste oil drum	Above ground covered top low pressure	Steel	1.9' diameter x 2.9' height	55 gallons	Oil accumulation
A6	Waste oil drum	Above ground covered top low pressure	Steel	1.9' diameter x 2.9' height	55 gallons	Oil accumulation
A7	LVW sludge tank	Above ground open top low pressure	Steel	8' diameter x 10' height	3,680 gallons	LVW sludge accumulation
A8	Neutralization tank	Above ground covered top; vented to atmos; dbl wall	Filament wound fiber reinforced vinyl, ester resin	18' diameter x 24' height	45,000 gallons	Wastewater self neutralization
B1	MCW storage & equalization Tank 3	Above ground open top low pressure	Steel	4.5' diameter x 30' height	357,000 gallons	Wastewater accumulation & equalization
B2	MCW storage & equalization Tank 4	Above ground open top low pressure	Steel	4.5' diameter x 30' height	357,000 gallons	Wastewater accumulation & equalization
B3	Flash Tank (1)	Above ground open top low pressure	Fiberglass	5' diameter x 5' height	735 gallons	pH adjustment
B4	Reactivator tank	Above ground open top low pressure	Steel	15' diameter x 20.5' height	27,100 gallons	Clarification
B5	Flash Tank (2)	Above ground open top low pressure	Fiberglass	7' diameter x 7' height	2,015 gallons	pH adjustment
B6	Monoscour multimedia filter	Above ground open top low pressure	Steel	11' diameter x 12' height	8,530 gallons	Filtration
B7	Treated wastewater storage Tank 5	Above ground open top low pressure	Steel	30' diameter x 18' height	95,350 gallons	Accumulation of treated wastewaters

TABLE 3.2
CABRILLO POWER I LLC
ENCINA POWER PLANT
TANK REFERENCE LIST
MARCH 2011

TANK REF#	Tank DESCRIPTION	TANK TYPE	CONSTRUCTION MATERIALS	TANK SIZE	TANK VOLUME	ACTIVITY
B8	Treated wastewater storage Tank 6	Above ground open top low pressure	Steel	30' diameter x 18' height	95,350 gallons	Accumulation of treated wastewaters
B9	Sludge thickener	Above ground open top low pressure	Steel	36' diameter x 16' height	121,830 gallons	Accumulation & settling of sludge
B10	Sludge contact tank	Above ground closed top low pressure	Steel	9' diameter x 10' long	4,760 gallons	Sludge conditioning
B11	Filter press	Hydraulic press	N.A.	N.A.	N.A.	Dewatering
B12	Transportable treatment unit	Above ground open top low pressure	Steel	35'l x 8'w x12'h	N.A.	pH adjustment
B13	Collection Tank (T2)	Above ground closed top low pressure	Steel	10' diameter x 8' height	4,700 gallons	Collection of wastewater

SECTION 3

Figure 3.1 – Water Mass Balance Schematic



* ESTIMATED MAXIMUM DAILY FLOWS
** 0.050 GPD
*** 3,024,000 GPD

NOT TO SCALE

FOR:
CABRILLO POWER I LLC
ENCINA POWER STATION

4600 CARLSBAD BOULEVARD
CARLSBAD, CALIFORNIA

WATER MASS BALANCE SCHEMATIC

FIGURE:
3.1

PROJECT NO:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
-	E. VARELA	D. GRASMICK	D. GRASMICK	3/2011

T:\NRG ENCINA\DOCUMENTS\2011\2011 NPDES RENEWAL DEVELOPMENT\SECTION 3_EPA FORM 2C & ATTACH\FIGURES\FIGURE 3.1.DWG

SECTION 3

Attachment 3.2 – Description of Encina Power Station's Facilities, Operations and Discharges

Attachment 3.2

NPDES Permit Renewal Application
NPDES NO. CA0001350

Facility Operation Description
for the Cabrillo Power I LLC,
Encina Power Station, San Diego County

1.0 Facility Description

The Cabrillo Power I LLC, Encina Power Station is located at 4600 Carlsbad Boulevard, in the southwest sector of the City of Carlsbad, California, adjacent to the Agua Hedionda Lagoon on the Pacific Ocean. The Encina Power Station is in Section 18, T12S, R4W, and SBBM.

The Encina Power Station has been owned and operated by Cabrillo Power I LLC (Cabrillo) since May 22, 1999. The power plant was previously owned by San Diego Gas and Electric Company (SDG&E).

The Encina Power Station (EPS or Encina) is a fossil-fueled steam electric power generating station that began operation in 1954. Thermal energy provided by the combustion of the fossil-fuels is used to generate steam to drive five (5) steam turbine generators. The Encina Power Station also has one (1) gas turbine generator. The combined thermal energy output capacity for the plant is 965 megawatts. Waste heat and other wastes generated at the Encina Power Station are discharged to the Pacific Ocean.

Cabrillo is permitted for a maximum combined discharge flowrate of 863.142 MGallons/Day. This includes 857.29 Million Gallons per Day (MGD) of once through cooling water. The remainder consists of low volume wastes, metal cleaning wastes, and stormwater runoff. Domestic wastewater is discharged to the municipal sewer system for treatment and disposal. A water flow diagram is identified as Figure 3.1 within Attachment 3.1 to EPA Form 2C. This figure shows maximum flowrate of each waste stream.

Encina combined cooling water flow averages 511.538 MGallons/Day. Cooling water flow accounts for 511.250 MGallons/Day of this total. On average, 0.288 MGallons/Day of waste reaches the combined cooling water flow.

Cooling water is withdrawn from the Pacific Ocean via the Agua Hedionda Lagoon. The cooling water intake structure complex is located approximately 2200 feet from the ocean inlet to the lagoon. Variations in the water surface due to tide are from a low of -5.07 feet to a high of +4.83 feet (elevation 0 being mean sea level, msl). The intake structure is located in the lagoon, in front of the generating units.

The mouth of the intake structure is 49 feet wide. As the water flows into the intake structure, it passes through trash racks (metal bars about 3 ½ inch apart) which prevent passage of large debris. The tunnel tapers into two, 12-foot wide intake tunnels. From these tunnels, the cooling water enters four six-foot wide conveyance tunnels. Cooling water for conveyance tunnels 1 and 2/3 passes through two vertical traveling screens to prevent fish, grass, kelp, and debris from entering pump intakes 1, 2, and 3. Conveyance tunnels 4 and 5 carry cooling water to intake 4 and 5, respectively. Traveling water screens are located at the intake of pump 4 and the intake of pump 5.

Each pump intake consists of two circulating water pump cells and one or two service pump cells. During normal operation, one circulating water pump serves each half of the condenser, so when a unit is on line, both pumps are in operation.

There are seven traveling screens that remove debris, which passes through the trash racks. The screens are conventional through-flow, vertically rotating, single entry, band-type screens, mounted in the screen wells of the intake channels. Each screen consists of a series of baskets or screen panels attached to a chain drive. Since the screens are designed to prevent the passage of particles large enough to clog the condenser tubes, the screening surface is made of 3/8-inch meshed stainless steel wire, with the exception of Unit 5 screens, which have 5/8-inch square openings. Cooling water passes through the wire mesh screening surface and floating or suspended matter is retained on the screens. The screens rotate automatically when the debris buildup causes a predetermined pressure differential across the screen (or the difference in sea water level before and after the screen increases to a set level). As the screens revolve, the material is lifted from the intake water surface by the upward travel of the baskets. The screens travel 3 feet per minute, making one complete revolution in about 20 minutes. A screen wash system in the traveling screen structure provides water (sea water from the intake tunnel) to wash the debris from the traveling screen. At the head of the screen, matter is removed from the baskets by a spray of water, which is evenly distributed over the entire basket width. The jet spray washes the material through a trough and into screen well baskets. Accumulated organic debris is discharged to Discharge Point 001.

The condensers are a shell-and-tube arrangement in which heat is transferred from the turbine exhaust steam to the circulating (cooling) water. Units 1, 2, and 3 have two-pass condensers (water enters the bottom, passes through the condenser twice, and exits the top). The tubing, made of No. 18 BWG aluminum-brass, has a 30-foot length and a 1-inch outside diameter. The condensers for Units 4 and 5 are a single-pass design. The tubing is No. 20 BWG copper-nickel with a 36-foot length and a 1-1/8-inch outside diameter.

Wastewater discharges associated with the operation of the cooling water system discharge directly to Discharge Point 001 without additional treatment. Cooling water from the condensers of all five units flows into a common discharge tunnel. The concrete discharge tunnel (15 feet wide) runs along the east side of the inlet conveyance tunnels, past the traveling screen structures, then crosses under the inlet tunnels and runs parallel to the west side. The cooling water flows into a discharge pond before traveling through box culverts under Carlsbad Boulevard into a riprap-lined channel, a surface jet discharge, into the Pacific Ocean. The coordinates of the plant discharge are 32°-57'-45" North latitude and 117°-16'-05" West longitude.

2.0 Discharge Description

The Encina Power Station has the following wastewater discharges to the ocean:

Once-Through (Non-contact) Cooling Water
Low Volume Wastes
Metal Cleaning Wastes
Stormwater Runoff

The wastewater discharge flow volumes from the Encina Power Station are as follows (MGallons/Day):

Wastewater Discharge	***Maximum Flow***
A. Once-Through (Non-Contact) Cooling Water	857.3
1. Condenser cooling	
2. Cooling water pump lubrication and seal water	
3. Cooling water pump lubrication and seal water pretreatment backwash	
4. Salt water heat exchanger cooling water	
5. Traveling screen backwash water	
6. Tunnel and forebay cleaning	
7. Hypochlorinator bearing cooling water	
B. Low Volume Wastes	4.0905
1. Boiler blowdown	
2. Evaporator blowdown	
3. Sample drains	
4. Floor drains	
5. Demineralizer	
6. Softeners	
7. Condenser cleaning	
8. Freshwater reverse osmosis (RO) brine	
9. Seepage and ground water pumping	
10. Seawater RO brine/backwash	
11. Fuel line/tank hydrotest	
12. Sand filter backwash	
13. Portable demineralizer rinse flush	
14. RO membrane cleaning	
15. Salt Water Heat Exchanger Drains	
16. Poseidon Pilot Desalinization Plant	
C. Metal Cleaning Wastes	0.7971
1. Boiler chemical cleaning	
2. Hypochlorinator chemical cleaning	
3. Evaporator chemical cleaning	
4. Air heater wash	
5. Boiler fireside wash	
6. Selective catalytic reduction wash	
D. Stormwater Runoff	1.280

DESCRIPTION OF LOW VOLUME WASTE STREAMS

Low Volume Waste (LVW) Treatment Facility: The low volume waste treatment facility treats all of the plant's low volume wastewaters, except for Reverse Osmosis (R.O.) brine, boiler blowdown, seawater R.O. pretreatment backwash, fuel line/tank hydrotest and groundwater dewatering from Units 4 and 5 basement subdrain systems. These are discharged directly to the once through cooling water system. The LVW treatment system is comprised of two 100% capacity wastewater treatment trains. Each train is comprised of a LVW Surge & Equalization Tank (to accommodate the various intermittent wastewater flows and flow rates from the plant) and an Oil/Solids Coalescer and Separator Unit. Effluent from the LVW treatment system is discharged to the plant's once through cooling water system. Discharges from the facility occur intermittently throughout the day based upon the wastewater flow rate from the plant. Filtration of low volume wastewater in the metal cleaning waste treatment facility's multimedia filter may be performed as an alternative treatment or as a back-up treatment in the event the oil/solids separator becomes inoperable. The contributing waste streams to the LVW treatment facility are described below.

Freshwater R.O. Sand Filter Backwash: Water passed through the freshwater reverse osmosis membranes is pretreated through sand filters to remove suspended solids and debris to prevent premature fouling of the membranes. The sand filters require periodic backwashing to maintain their effectiveness. The frequency of backwashes is dependent on the load of suspended solids present in the municipal water. Wastewaters generated by the backwash process are routed through a self-neutralization tank prior to discharge to the LVW treatment facility.

R.O. Membrane Cleaning: The membranes in the reverse osmosis unit require occasional cleaning to remove mineral deposits from the membrane surface. Membrane cleaning frequency is dependent upon the membrane fouling rate. Wastewaters generated by the cleaning process are routed through the self neutralization tank prior to being routed to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

Demineralizer: Demineralizers are used as the second and final step in the plant's primary boiler makeup water treatment process (i.e., reverse osmosis/demineralization). The demineralizers further polish boiler water first treated in the freshwater reverse osmosis system. Over time, demineralizer resins become exhausted and need to be regeneratred using an acid/caustic process. Regenerants flushed from system are routed to the LVW treatment facility. Demineralizer resin regeneration occurs on a periodic basis based on facility operations and the demand for make-up water.

Condenser Cleaning: Periodic manual cleaning of the condenser tubes is conducted to maintain optimal heat transfer of the cooling system and prevent localized pitting of the tube material. Manual cleaning is conducted using a high pressure air/water stream shot through the tubes and/or metal or plastic scrapers pushed through the tubes using water pressure. Cleanings are periodic and are conducted more frequently during the summer when water temperatures are higher and there is faster growth of fouling organisms. Cleaning wastes are discharged to the LVW treatment facility.

Floor Drains: Floor drains are located throughout the plant and, in addition to being used for routing low volume waste streams to the low volume wastewater treatment facility, are used to collect miscellaneous wastewaters from the plant's operating equipment. Wastewater that enters the floor drains collect in sumps. Once a sump reaches a preset level, the water is pumped to the low volume wastewater treatment facility.

Sample Drains: The plant must maintain the quality of water it uses in different systems (e.g. boiler water) within certain parameters for operations. This is accomplished by the use of online automatic samplers/analyzers and discrete samples to evaluate water quality. Many of these sample streams run continuously. Some of this water is recovered for reuse in the plant, while the rest is discharged to the LVW treatment facility.

Portable Demineralizer Rinse Flush: Under certain circumstances (e.g., the plant's demineralizer is out of service for maintenance, unit startups after overhaul) a portable demineralizer(s) is brought on-site to provide demineralized water to the plant. Prior to using water produced by the portable unit, it is run until the water it is producing meets the plant's specifications. This "rinse flush" water is discharged to the plant's low volume waste system that goes to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system. Use of the portable units is very infrequent. The rinse flush may last approximately one to two hours at the beginning of each use of the unit.

Evaporator Blowdown: Evaporators are an integral component of an alternate boiler make-up water pre-treatment system (i.e. water softening/evaporation). When the total dissolved solids in the evaporator increase to preset levels, a portion of the evaporator water is discharged to the LVW treatment facility to flush out high mineral-content water. When in use, blow down discharges occur intermittently throughout the day. Although the evaporators are not routinely used, they remain an integral part of the plant's alternative water make-up system.

Softeners: Water softening is another integral component of the plant's alternate boiler make-up water pre-treatment system (i.e., water softening/evaporation). Municipal water is pre-treated through a softener prior to being routed to an evaporator. Periodically, the water softener requires regeneration using a brine solution made from salt. Regeneration wastes are routed to the LVW treatment facility. Although water softening is not routinely used at this time, it remains an integral part of the plant's alternative water make-up system. When in use, regenerations are done on a periodic basis (approximately once per day) that is based upon actual plant operations and demand for make-up water.

Low volume wastes separate from the LVW facility are described below.

Freshwater R.O. Brine: Municipal water used in the boilers to generate steam must first be pretreated to produce demineralized water. As a first step in the reverse osmosis/demineralization water purification process, the municipal water goes through a reverse osmosis (R.O.) pretreatment process to remove dissolved solids. The R.O. removes the dissolved solids and discharges them as"brine" composed of approximately 25% of the incoming water and the rejected solids. This brine is discharged through a line that is routed directly to the once-through cooling water system. Discharge of the brine normally occurs intermittently during boiler operation.

Boiler Blowdown: The boilers at Encina require high quality water to operate at optimal conditions. The high quality water is prepared for use in the boilers from municipal water through one of several pretreatment systems (reverse osmosis/demineralization or water softening/evaporation). Despite the pretreatment systems employed the dissolved solids concentration of boiler water increases over time. To reduce the dissolved solids content, the boiler is “blown down”, i.e. a valve is opened on the steam discharge line to release boiler water with elevated concentrations of dissolved solids. At the same time, make-up water treated through the pretreatment system is added to the boiler. Blowdown discharges are intermittent and infrequent under normal unit operating conditions, and are determined largely by boiler water chemistry. Blowdown also occurs during unit start-up and in the event of condenser leaks. In order to meet NPDES monitoring requirements, boilers in operation are blown down monthly to collect appropriate samples. The blow down line for each unit is routed directly to the cooling water intake tunnel on the cooling water deck.

Seawater R.O. Brine and Backwash: It is anticipated that, in the event of a fresh water shortage, a reverse osmosis unit may be used to produce water for plant operational purposes from seawater. Depending on the suspended solids loading of the source water it may need to be pretreated to remove suspended solids prior to the R.O. unit. This system has not yet been installed. It is anticipated, however, that when it is operational the pretreatment discharges would occur intermittently throughout the day and be combined with the brine prior to discharge to the once-through cooling system. It is anticipated that the proposed seawater R.O. unit would produce "brine" composed of approximately 60% of the incoming water and the rejected solids. This brine would be discharged through a line that is routed directly to the once through cooling water system. Discharge of the brine would occur daily and be intermittent throughout the day.

It is anticipated that the membranes of the proposed R.O. unit would require occasional cleaning to remove mineral deposits from the membrane surface. The cleaning frequency is anticipated to be approximately once per six months. However, the cleaning frequency is ultimately dependent upon the membrane fouling rate. Wastewaters generated by the cleaning process would be routed to the low volume wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

Fuel Line/Tank Hydrotests: Encina has the capability of using Residual Fuel Oil for boiler fuel. This fuel is stored in large floating roof tanks onsite. To repair a fuel tank or fuel line, it is drained and cleaned. After a fuel tank or fuel line repair, a hydrotest is performed to verify system integrity. The water used for this hydrotest is then discharged to a stormwater drain.

Desalination Pilot Plant: In September of 2002, the California Regional Water Quality Control Board, San Diego Region (Regional Board), approved the installation and operation of the seawater desalination pilot plant as proposed by Poseidon Resources. The existing permit has allowances for seawater desalination. In January 2003, Poseidon initiated seawater desalination operations and testing in accordance with the conditions set forth by the Regional Board in a letter dated September 24, 2004.

The Regional Board approved the diversion of up to 104 gallons per minute (gpm) (.015 MGD) of water from the cooling water discharge pond to a pretreatment system (sand filtration or microfiltration) for removal of suspended solids. On June 11, 2004 Cabrillo Power I LLC submitted a request to increase the diversion rate to 200 gpm (.288 MGD).

A portion of the pretreated water is conveyed to a RO system for membrane filtration treatment and production of desalinated water.

The low-volume waste and product stream are routed directly back to the cooling water discharge pond on a continuous basis while operating. Based on the 200 gpm (.288 MGD) diversion rate, the effluent components include:

a) Backwash water from pretreatment system (Containing removed suspended solids)	20 gpm (.029 MGD)
b) Wasted pretreated sea water	130 gpm (.187 MGD)
c) Backwash water from the RO system (waste brine)	25 gpm(.036 MGD)
d) Product (desalinated) water	25 gpm (.036 MGD)
Total	200 gpm (.288 MGD)

In addition to the above waste and product streams, the pilot plant also produces intermittent discharges of waste from the R.O. filtration membrane cleaning operation. This operation is necessary for removal of mineral deposits, which may foul up the R.O. filtration membrane. This intermittent process generates a small stream of wastewater that can either be routed to the power plant's cooling water discharge pond or may be discharged to the sewer system.

Seepage and Groundwater Pumping: The basements of Units 4 and 5 are over sixteen feet below sea level. Hence, they receive a large amount of seepage from groundwater. In order to prevent flooding of these basements, sumps were installed to collect the seepage water. Pumps automatically discharge the sump contents directly to the once-through cooling system.

DESCRIPTION OF METAL CLEANING WASTE STREAMS

Metal Cleaning Treatment Facility: The wastewaters from cleanings and washes are collected in one or both of the wastewater receiving tanks. Then they are neutralized, flocculated, chemically precipitated and filtered to remove metals and solids and routed to treated wastewater tanks to be held for testing. Once the discharge of the treated wastewater is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of wastewater from metal cleanings and washes. The frequency of discharges is dependent upon the frequency of cleanings and washes. The sludge generated by the treatment process is dewatered using a filterpress and disposed of in a landfill permitted to receive the waste.

Chemical Cleaning: Boiler tube waterside cleanings are performed using either a dilute acid solution or an organic chelant based cleaning solution. The boiler to be cleaned is drained of the water it contains and filled with fresh water, then fired to heat the water and metal up to temperature. When the required temperature is attained, a "fast drain" is done and the warm water is pumped back into the boiler with the chemicals mixed into the water during pumping. At this point, the boiler is allowed to sit for six hours with the cleaning solution inside. The temperature is monitored so that if the system cools too quickly it can be drained sooner. After the cleaning solution has been given time to work on the deposits, another fast drain is done and the cleaning job is checked to ensure that the deposits have been removed. A rinse cycle follows and samples are taken during the draining. Usually a second and a third rinse is done. The third volume of water contains citric acid. The final volume in the cleaning operation contains phosphate and sodium hydroxide as neutralizing agents. Cleanings are conducted to remove deposits that inhibit heat transfer and increase the danger of boiler tube failure. Cleaning solutions, passivation wastewater and rinses are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of a cleaning and are normally discharged over a period of two to four weeks. A unit's boiler is normally cleaned once every six to seven years, however, conditions could occur that require more frequent cleaning.

Air Heater Wash: Air heater and air pre-heater fireside washes are performed to remove soot and accumulated combustion by-products from metal surfaces in order to maintain efficient heat transfer. These washes are accomplished by spraying high-pressure city supply water against the surfaces to be cleaned. Wastewater thus generated contains an assortment of dissolved and suspended solids with loadings and constituents that are dependent upon the facility's fuel and metals from the corrosion of the heater. These washwaters are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of wastewater of a wash and are normally discharged over a period of two to four weeks. A unit's heater and pre-heater are normally cleaned once per year, however, conditions could occur that would require more frequent washing.

Boiler Wash: Boiler tube fireside washes are performed to remove soot and accumulated combustion by-products from metal surfaces in order to maintain efficient heat transfer. These washes are accomplished by spraying high-pressure city supply water against the surfaces to be cleaned. Wastewater thus generated contains an assortment of dissolved and suspended solids with loadings and constituents that are dependent upon the facility's fuel and metals from the corrosion of the boiler. These washwaters are collected in one or both of the metal cleaning wastewater receiving tanks. Wastewater is processed through the treatment facility and held for testing prior to discharge. Once the discharge is approved, the treated wastewater is discharged to the plant's once through cooling water system. Discharges normally occur daily during the processing of a wash and are normally discharged over a period of two to four weeks. A unit's boiler is normally cleaned once per year, however, conditions could occur that would require more frequent washing.

Hypochlorinator Chemical Cleaning: Cleaning of the hypochlorinator electrolytic cells is conducted approximately once every six weeks to remove mineral scale. Wastewaters from the cleaning are routed to the metal cleaning wastewater treatment facility for treatment and subsequent discharge to the once through cooling water system.

DESCRIPTION OF WASTE STREAMS ASSOCIATED WITH COOLING WATER

Cooling Water Pump Lubrication and Seal Water Pretreatment Backwash: Circulating water pumps have bronze bearings that are sealed and lubricated with either seawater or fresh water. Where seawater is used, it must first be filtered to prevent solids from reaching and damaging the bearings. Filtration of the seawater is accomplished using small automatic filtration units. These units are designed to automatically backwash every hour to remove the accumulated solids from the filtering media. This backwash water is routed directly to the once through cooling water system.

Salt Water Heat Exchanger Cooling Water: Once-through cooling water is used for cooling plant equipment in addition to condensing steam. Cooling of the plant equipment is accomplished through use of auxiliary heat exchangers that use saltwater to cool "service water" that is piped through-out the plant to cool the plant equipment. There are four heat exchanger systems and each system uses two individual heat exchangers. Normally, only one heat exchanger is used per system at a time, however, under certain operating conditions both heat exchangers in a system may operate at the same time. The once through cooling water from the heat exchangers is discharged directly to the once-through cooling water discharge tunnel.

The saltwater condenser leaks intermittently and infrequently. However, when they do occur, they can cause significant operating problems and increased frequency of boiler chemical cleanings for the power plant. Cabrillo uses alfalfa (or other acceptable materials approved by the Executive Officer) to temporarily plug leaks to allow the unit to operate until it can be removed from service for repair.

Traveling Screen Backwash Water: Traveling screens are used to remove small debris from the cooling water stream that could otherwise interfere with the heat exchange process in the condenser tubing. As each screen is rotated, a high-pressure spray washes any accumulated debris off the screen face into debris baskets. Water for the high-pressure spray is pumped from the once-through cooling water flow to the spray heads. The water that removes the debris drains through the baskets and screen panels and re-enters the once-through-cooling water flow. Organic debris removed from the screens is discharged to the discharge channel.

Tunnel and Forebay Cleaning: Over time, sediment from the Agua Hedionda Lagoon and shells from encrusting organisms that grow on the tunnel walls can accumulate in the plant's cooling water intake tunnels and forebays to an extent that it threatens to restrict the flow of the cooling water supply to the units during low tide conditions. Cleaning of the cooling water tunnels and pump forebays is conducted periodically to remove the accumulated debris. Because tunnel/forebay cleaning is normally conducted during a unit overhaul, only the tunnel or forebay for the unit under-going overhaul is usually cleaned at a given time. Tunnel/forebay cleaning for an individual unit is not usually conducted more than once every year. Water from the tunnel/forebay being cleaned is pumped to the cooling water discharge tunnel. Materials cleaned from the tunnels and forebay are discharged to either the cooling water discharge tunnel or to the cooling water discharge pond.

Hypochlorinator DC Rectifier Cooling Water: The plant produces its own sodium hypochlorite for use in chlorination of the cooling water system. Make-up water is drawn from the cooling water and passed through the DC rectifier. The product is then used for the intermittent chlorination of the condensers and heat exchangers. A small stream of once through non-contact cooling water is used to cool the DC rectifier and is discharged to the cooling water system. This cooling stream runs continuously when the rectifier is in operation, but does not discharge when the rectifier is off. With all cooling water pumps in operation, the hypochlorinator generator runs approximately 85-100% of the time during the day.

3.0 Heat Treatment Description

Encrusting organisms in the early stages of development are small enough to pass through the trash racks and screens, and enter the intake tunnels and condenser tubing. The encrusting organisms can attach themselves to the tunnel walls, traveling water screens, and other parts of the cooling water system. If not removed, the encrusting organisms grow and accumulate at a rate of approximately 1000 cubic yards over a 6-month period. These accumulations restrict the flow of cooling water to and through the condensers, causing a rise in the condenser operating temperature and the temperature of the discharged once-through cooling water. Although intermittent chlorination is practiced at Encina, only the condensers and salt water heat exchangers are chlorinated. Due to the ability of encrusting organisms to withstand intermittent exposure to chlorine, effective control of biofouling in the cooling water intake structures via chlorine would require continuous chlorination of the entire intake system. Continuous chlorination is not considered a viable option because it requires the addition of large volumes of chlorine on a continuous basis. Consequently, in order to prevent encrusting organisms from developing to any significant size or quantity, a thermal tunnel recirculation treatment procedure (heat treatment procedure) is used periodically. The actual frequency of heat treatment is determined by the Heat Treatment Decision Diagram, shown in Figure 3.3.

In addition to preventing the disruption of cooling water flows, heat treatment helps maintain a lower possible temperature rise across the condensers, thereby improving plant efficiency, and reducing normal plant cooling water discharge temperatures.

Heat treatment is performed by restricting the flow of cooling water from the Agua Hedionda Lagoon and recirculating the condenser discharge water through the conveyance tunnels and condensers until the inlet water temperature is increased to the treatment temperature. Recirculation of the cooling water is accomplished through a cross-over tunnel located approximately 120 feet from the discharge, adjacent to the intake channel. The temperature is raised to 105°F in the intake tunnels and maintained (heat soak) for approximately two hours, which has proven to be adequate in killing and removing encrusting organisms.

Each time the cooling water passes through the condensers, it picks up additional heat rejected from the steam cycle – as much as 15°F per pass. Because the cooling water continues to circulate and the generator units continue to operate, the post-condenser temperature in the discharge channel can reach 120°F. To maintain the treatment temperature of up to 105°F during the heat soak phase, additional lagoon water is blended into the cooling water system and a corresponding volume of water is discharged to the Pacific Ocean.

The heat treatment duration of two hours represents the total duration of the process once the cooling water has reached the optimal treatment temperature of 105°F; this does not include time for heat treatment, including temperature buildup and cool-down is approximately seven to nine hours. Because the cooling water discharge is restricted during the heat treatment in order to recirculate the heated effluent, the plant's discharge flow rate is reduced to approximately 7 to 45 percent of its full flow rate during normal operations.

4.0 Description of Chlorination Practices

Intermittent chlorine treatment is used to minimize formation of slime, which accumulates in the condenser tubes if control measures are not employed. At Encina, sodium hypochlorite is manufactured on-site as needed. It is produced electrolytically from sodium chloride in the seawater. Seawater from the intake is pumped through each of the two hypochlorinators, which are comprised of electrolytic cell modules arranged in series. The hypochlorite produced is fed into a holding tank, where it is diluted with intake water. Then the sodium hypochlorite solution is injected to the channel immediately upstream of the once-through cooling water and salt water service pump suctions for each unit. Each injection point is individually controlled. Hypochlorination is conducted for about five minutes per hour per unit on a timed cycle each day. This method of chlorination will result in a minimal chlorine residual in the cooling water being discharged to the ocean. While in service, a small stream of filtered seawater is used for once through non-contact cooling and discharged to the cooling water intake system. Periodic chemical cleanings using nitric and hydrochloric acids are required to remove accumulated mineral scale from the hypochlorinators. Wastes from these cleanings are routed to the plant's metal cleaning waste-water treatment facility for treatment prior to discharge.

5.0 Description of the Receiving Water

The waters and beaches along this area of the coast provide excellent opportunities for water-related recreational activities, which include sightseeing, sunbathing, swimming, surfing, diving, fishing, camping, picnicking, bird watching, and boating. The beaches are utilized year-round with peak usage during the months of June, July and August.

Kelp beds exist to the north and south of the Encina Power Station discharge channel, the closest bed is located within approximately 1/3 mile west southwesterly of the existing discharge site.

6.0 Section 316(a) of the Clean Water Act

On May 18, 1972, the State Water Resources Control Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan). A revised Thermal Plan was adopted by the State Board on September 18, 1975. This Plan contains objectives for discharges of elevated temperature wastes (existing and new discharges) to coastal waters.

Under the terms and conditions of the Thermal Plan, thermal waste discharges from Units 1-4 are classified as existing discharges. The waste discharge from Unit 5 is classified as a new discharge.

Section 316(a) of the Clean Water Act (CWA) requires compliance with the State water quality standards for the discharge of thermal effluent. In 1973, SDG&E conducted a thermal effects study as required by the Thermal Plan. The discharger concluded from the study that the existing discharges from Units 1-3 caused no prior appreciable harm to the aquatic communities of the coastal waters of the Pacific Ocean. The discharger further predicted that the increased discharge from Unit 4 would not cause significant changes in the existing conditions or beneficial uses. Regional Water Board reviewed the thermal effects study and concurred with the discharger's conclusions.

On March 6, 1975, under the provisions of Section 316(a) of the CWA, SDG&E applied for an exception for Unit 5 from the following new source performance standards contained in the Thermal Plan and the power plant regulations in effect in 1975.

(a) Thermal Plan Objective 3.B. (1)

Elevated temperature waste shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical water column.

(b) Thermal Plan Objective 3.B. (4)

The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system. The surface temperature limitation shall be maintained at least 50 percent of the duration of any complete tidal cycle.

(c) Power plant regulations in effect in 1974, 40 CFR 423.15(L)

There shall be no discharge of heat from the main condensers except:

> (1) Heat may be discharged in blowdown from recirculated cooling water systems provided the temperature at which the blowdown is discharged does not exceed at any time the lowest temperature of recirculated cooling water prior to the addition of the make-up water.
>
> (2) Heat may be discharged in blowdown from cooling ponds provided the temperature at which the blowdown is discharged does not exceed at any time the lowest temperature of recirculated cooling water prior to the addition of the make-up water.

On July 16, 1976, the U.S. Court of Appeals for the Fourth Circuit remanded certain provisions of the power plant regulations in effect in 1974 for further consideration.

SDG&E initiated a study in 1975 for the purpose of making a demonstration under Section 316(a) of the CWA in support of its application for the exceptions to the Thermal Plan. As a part of its application for such exceptions under the Thermal Plan, SDG&E proposed alternative thermal discharge limitations which would allow discharges from Unit No. 5 to be made in the same "across the beach" channel used for the thermal discharges from Unit Nos. 1-4, and allow for an alternative to the surface temperature limitation. SDG&E's study was undertaken to demonstrate that SDG&E's proposed discharge alternatives would assure the protection and propagation of the beneficial uses of the receiving waters, including a balanced, indigenous population of shellfish, fish and wildlife.

SDG&E submitted the results of the Section 316(a) demonstration study in 1981. SDG&E concluded that the additional discharge from Encina Power Plant Unit 5, when added to the discharges from Units 1-4, had not resulted in "Appreciable Harm" to the balanced indigenous communities of the receiving waters, or in adverse effects to beneficial uses of the coastal waters in the vicinity of the Encina Power Plant discharge.

SDG&E submitted a supplemental 316(a) Summary Report in 1990. This report provided additional data for the period from 1981 to 1990 and amended the original request based upon actual operating experience.

Prior to the adoption of Order 94-59 and based upon a review of the findings of the 316(a) demonstration studies, this Regional Board and USEPA concluded that additional information was needed to determine if the thermal discharge from Encina would allow the propagation of a Balanced Indigenous Community and ensure the protection of beneficial uses of the water. Order 94-59 required that SDG&E conduct an additional study to supplement its demonstration of compliance with Section 316(a) of the CWA. SDG&E conducted this supplemental study and on August 8, 1997 submitted it to the Regional Board. The supplemental study concluded that no adverse effects of the present operation have been observed or are predicted.

Cabrillo Power I LLC resubmitted the 1997 report again in February 2004, and requested as part of the NPDES permit application, that the Regional Board and the USEPA approve the thermal exception discussed above and includes it as a finding in the 2006 Order.

In July 2005, Tetra Tech Inc., under contract to US EPA and on behalf of the San Diego Regional Water Quality Control Board, reviewed the supplemental study and concluded that the report did not provide the information necessary to determine if the thermal discharge from Encina would allow for propagation of a balanced indigenous population and will ensure the protection of beneficial uses of water.

In existing Order No. R9-2006-0043, Section VII.C. (Special Provisions), the Order states that within 90 days of adoption, the Discharger was to submit a plan and time schedule to address the comments on the 1997 Encina Power Plant Supplemental 316 (a) Assessment Report contained in the July 8, 2005 Tetra Tech, Inc. memorandum. This plan was submitted by Cabrillo Power I LLC to the San Diego Regional Water Quality Control Board on November 13, 2006.

7.0 Section 316(b) of the Clean Water Act

CWA Section 316(b) requires that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. By letter dated October 30, 1977 the Regional Board requested SDG&E to initiate studies to demonstrate conformance with the requirements of Section 316(b) of the CWA.

In December 1980, the discharger submitted a final report intended to show compliance with Section 316(b) of the CWA. SDG&E concluded that "the low and insignificant level of impact demonstrates that the existing Encina Power Plant intake system represents the best technology available for this specific site to minimize adverse environmental impacts."

Prior to the adoption of Order 94-59 and based upon a review of the findings of the 316(b) demonstration studies, this Regional Board and USEPA concluded that additional information was needed to confirm that the location, design, construction, and capacity of the cooling water intake structures at the Encina Power Station reflect the best technology available (BTA) for minimizing adverse environmental impacts and protecting beneficial uses of the receiving water. Order 94-59 required that SDG&E conduct an additional study to supplement its demonstration of compliance with Section 316(b) of the CWA. SDG&E conducted the study and on August 6, 1997 submitted this study to the Regional Board. This study concludes that the assessment demonstrates that the cooling water intake is not having an adverse environmental impact as defined under Section 316(b) of the Clean Water Act and, therefore, the existing intake constitutes BTA.

Phase II 316(b) Cooling Water Intake Structure regulations were signed by the US EPA Administrator on February 16, 2004. The US EPA provided guidance regarding Phase II regulation under 316(b). The Phase II rules set national standards for cooling water withdrawals by large, existing power producing facilities. However, because of litigation over the Phase II regulations, the US EPA distributed a memorandum in 2007 that stated the Phase II rule should be considered suspended. This decision was based on the conclusion that many provisions of the Phase II rules were affected by ongoing litigation.

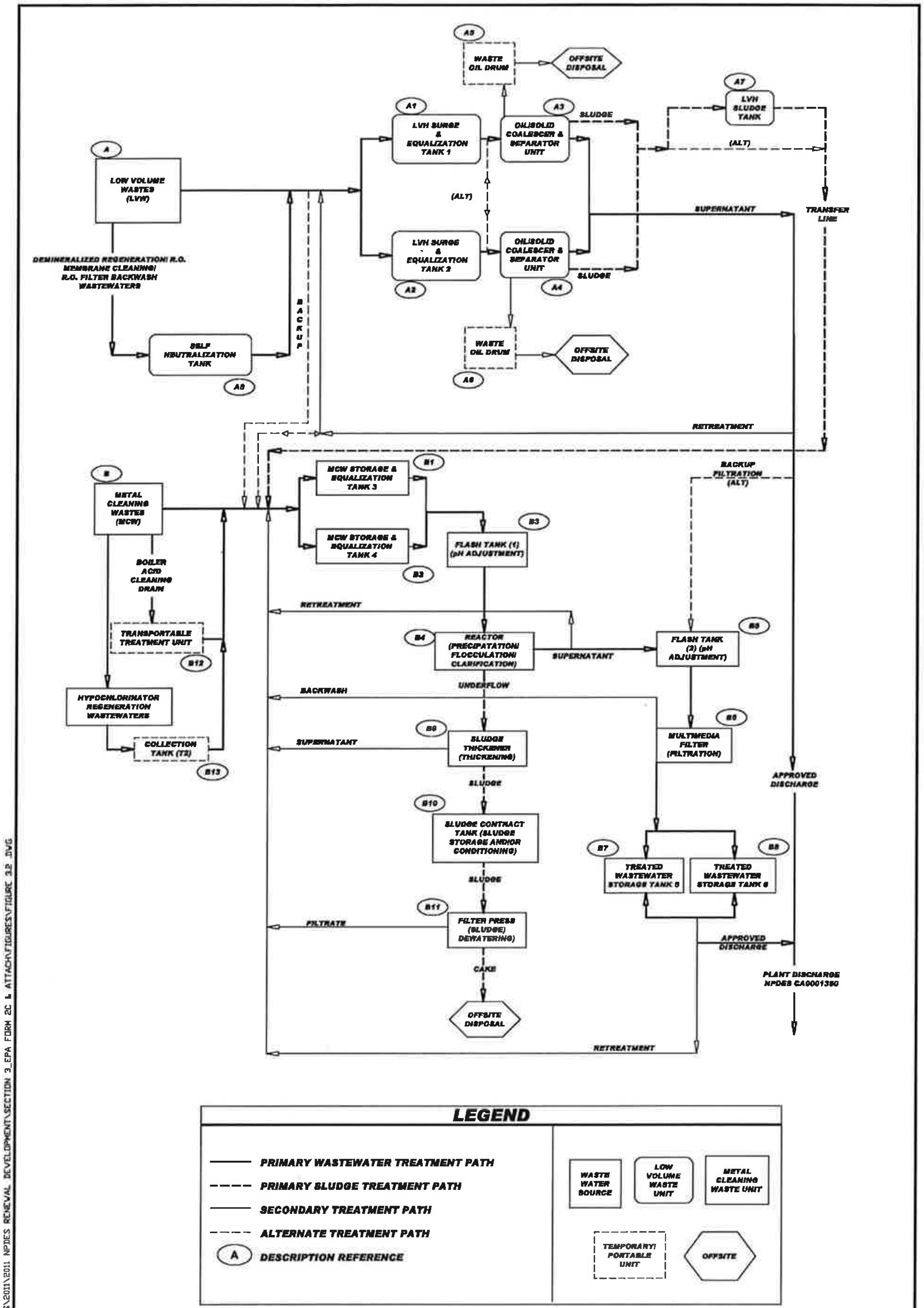
In March 2006, Encina Power Station submitted to the Regional Board a document entitled "Proposal for Information Collection" (PIC) to comply with the CWA Phase II 316(b) Rule. Once approved, this document was to serve as the work plan for collecting and analyzing data to be used for preparation of a Comprehensive Demonstration Study as described in the US EPA Phase II 316(b) regulation.

In October 2010, California State Water Resources Control Board (SWRCB) adopted a policy regarding the use of coastal and estuarine waters for power plant cooling. The policy notes that there are no applicable nationwide standards implementing Section 316(b) for existing power plants. Consequently, the SWRCB must implement Section 316(b) on a case-by-case basis, using best professional judgment. The policy statement also notes that implementation of Section 316(b) using best professional judgment in determining best technology available (BTA) for minimizing adverse impacts to the environment will be implemented in NPDES permits. The policy offers compliance alternatives for existing power plants, referred to as "*Track 1*" (reduction of cooling water intake flow rates) or "*Track 2*" (reduce impingement mortality and entrainment of marine life). The policy statement notes that in order to ensure consistency in implementing Section 316(b) in California, the State Water Resources Control Board will assume responsibility for NPDES permit actions for existing power plants subject to this policy.

Based upon the implementation schedule provided in the October 2010 policy statement, Encina will prepare and submit, not later than April 1, 2011, an implementation plan that shall identify the compliance alternative selected for the facility. The implementation plan will describe the general design, construction, or operational measures that will be undertaken to implement the alternative, and propose a schedule for implementing measures. The policy statement also describes the monitoring provisions and studies that are expected to be completed by the facility to demonstrate impingement and entrainment impacts both before and after potential controls are implemented.

SECTION 3

Figure 3.2 – Wastewater Functional Schematic



FOR:
CABRILLO POWER I LLC
ENCINA POWER STATION

4600 CARLSBAD BOULEVARD
CARLSBAD, CALIFORNIA

WASTEWATER FUNCTIONAL SCHEMATIC

FIGURE:
3.2

NOT TO SCALE

PROJECT NO: –
DRAWN BY: E. VARELA
CHECKED BY: D. GRASMICK
APPROVED BY: D. GRASMICK
DATE: 3/2011

T:\NRG ENCINA\DOCUMENTS\2011\2011 NPDES RENEWAL DEVELOPMENT\SECTION 3_EPA FORM 2C & ATTACH\FIGURES\FIGURE 3.2 .DWG

SECTION 3

Attachment 3.3 – Requested Permit Changes

EPA FORM 2C
ATTACHMENT 3.3

Requested Change to the Permit

As discussed in Section 6.0 of the Plant Operations Description, Cabrillo Power I LLC resubmitted, in February 2004, the 1997, 316(a) supplemental study initiated by SDG&E. The conclusion of the study was that no adverse effects due to thermal conditions have been observed nor are predicted. Cabrillo Power I LLC requests the State Board and the USEPA, approve the demonstration of compliance and include as a finding in the forthcoming 2011 Order.

Requested Change to the Permit – Sampling Frequency for Total Residual Chlorine

As discussed in Section 4.0 of the Plan Operations Description, intermittent chlorine treatment is used to minimize formation of slime, which occurs in the condenser tubes if control measures are not practiced. As directed in the Monitoring and Reporting Program (MRP) of R9-2006-0043, the combined effluent discharge has been monitored for total residual chlorine on a weekly basis for the duration of the previous order. A significant proportion of the total residual chlorine analytical results are below the reported limits of detection (40 µg/L), and well below effluent limitation guidelines (200 µg/L; Table F-12, Attachment F of R9-2006-0043). For example, in 2010, 398 individual combined discharge samples were analyzed for total residual chlorine. Of these samples, 5 samples (1.3%) had detectable concentrations of total residual chlorine, at maximum detected concentration of 40 µg/L. Cabrillo Power I LLC requests the State Board and the USEPA approve a reduction of sampling frequency from weekly to monthly, and include this in the forthcoming 2011 Order.

Requested Additional Finding to the Permit

Cabrillo Power I LLC requests the State Board continue to include the Poseidon Resources Desalination Pilot Plant (as defined below) as part of the Low Volume Waste Section of the forthcoming 2011 Order.

Desalination Pilot Plant: In September of 2002, the California Regional Water Quality Control Board, San Diego Region, approved the installation and operation of the seawater desalination pilot plant as proposed by Poseidon Resources. The existing permit has allowances for seawater desalination. In January 2003, Poseidon initiated seawater desalination operations and testing in accordance with the conditions set forth by the Regional Board in a letter dated September 24, 2004.

The Regional Board approved the diversion of up to 104 gallons per minute (gpm) (.015 MGD) of water from the cooling water discharge pond to a pretreatment system (sand filtration or microfiltration) for removal of suspended solids. On June 11, 2004 Cabrillo Power I LLC submitted a request to increase the diversion rate to 200 gpm (.288 MGD).

A portion of the pretreated water is conveyed to a RO system for membrane filtration treatment and production of desalinated water.

The low-volume waste and product stream are routed directly back to the cooling water discharge pond on a continuous basis while operating. Based on the 200 gpm (.288 MGD) diversion rate, the effluent components include:

a) Backwash water from pretreatment system (Containing removed suspended solids)	20 gpm (.029 MGD)
b) Wasted pretreated sea water	130 gpm (.187 MGD)
c) Backwash water from the RO system (waste brine)	25 gpm (.036 MGD)
d) Product (desalinated) water	25 gpm (.036 MGD
Total:	**200 gpm (.288 MGD)**

In addition to the above waste and product streams, the pilot plant also produces intermittent discharges of waste from the R.O. filtration membrane cleaning operation. This operation is necessary for removal of mineral deposits, which may foul up the R.O. filtration membrane. This intermittent process generates a small stream of wastewater that can either be routed to the power plant's cooling water discharge pond or may be discharged to the sewer system.

SECTION 3

Attachment 3.4 – Application Sampling and Analysis Reports

ENVIRONMENTAL ANALYSIS LABORATORY

SDGE
A Sempra Energy utility®

16 March 2011

Sheila Henika
Cabrillo Power 1, LLC
4600 Carlsbad Boulevard
Carlsbad, CA 92008-4301

RE: Encina NDPES Recertification - 2011

Enclosed are the results of analyses for samples received by the laboratory on 03/09/11 11:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Authorized Signature 3/16/11

Christopher Q. Dong
Senior Chemist
Name / Title

ANALYTICAL REPORT FOR SAMPLES

Sample ID	**Laboratory ID**	**Matrix**	**Date Sampled**	**Date Received**
Intake-Composite	1103039-01	Water	03/09/11 08:00	03/09/11 11:00
Discharge-Composite	1103039-02	Water	03/09/11 08:20	03/09/11 11:00
Intake-Grab 1	1103039-03	Water	03/08/11 06:45	03/09/11 11:00
Intake-Grab 2	1103039-04	Water	03/08/11 13:55	03/09/11 11:00
Intake-Grab 3	1103039-05	Water	03/08/11 18:50	03/09/11 11:00
Intake-Grab 4	1103039-06	Water	03/09/11 01:00	03/09/11 11:00
Intake-Grabs 1-4 Composite	1103039-07	Water	03/09/11 01:00	03/09/11 11:00
Discharge-Grab 1	1103039-08	Water	03/08/11 07:08	03/09/11 11:00
Discharge-Grab 2	1103039-09	Water	03/08/11 14:07	03/09/11 11:00
Discharge-Grab 3	1103039-10	Water	03/08/11 19:12	03/09/11 11:00
Discharge-Grab 4	1103039-11	Water	03/09/11 01:15	03/09/11 11:00
Discharge-Grabs 1-4 Composite	1103039-12	Water	03/09/11 01:15	03/09/11 11:00

Report Comments

1. The following analysis was performed by TestAmerica (California ELAP No. 2424); please refer to the attached TestAmerica report.

   * Organotins, PSEP (GC/MS)

2. The following analysis was performed by Motile Laboratoy (California ELAP No. 2720); please refer to the attached Motile report.

   * EPA 9221 C - Fecal Coliform

3. The following analyses were performed by D-Tek Analytical Laboratories (California ELAP No. 2344); please refer to the attached D-Tek report.

   * SM 5210 B - Biological Oxygen Demand
   * SM 2120 B Visual - Color
   * SM 4500-SO3 B - Sulfite
   * SM 5540 C - Surfactants (MBAS)

3. The following analyses were performed by Calscience Environmental Laboratories (California ELAP No. 1230); please refer to the

attached Calscience report.

- * SM 5310 - Total Organic Carbon
- * SM 4500-N org - Total Organic Nitrogen
- * SM 4500-S2 F - Sulfide
- * SM 4500 NH3 C - Nitrogen Ammonia
- * SM 4500 CN E - Cyanide, total
- * EPA 420.1 - Phenols, total

4. For the following analyses, four grab samples were taken in the field with a composite done in the laboratory for one analysis per sample location.

a. EPA 608 - Pesticides/PCBs
b. EPA 625 - Semi-volatile Organic Compounds
c. EPA 8260 - Volatile Organic Compounds

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Intake-Composite (1103039-01) Water Sampled: 03/09/11 08:00 Received: 03/09/11 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Silver	ND	0.50	ug/l	1	1C11004	03/11/11	03/15/11	SM 3113 B	
Aluminum	**0.28**	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Arsenic	**4.3**	1.0	ug/l	"	1C10010	03/10/11	03/14/11	EPA 200.8	
Boron	**3.0**	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Barium	ND	0.40	"	"	"	"	"	"	
Beryllium	ND	0.010	"	"	"	"	03/16/11	"	
Bromide	**4.65**	0.0100	"	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Cadmium	ND	0.50	ug/l	"	1C11004	03/11/11	03/14/11	SM 3113 B	
Cobalt	ND	0.20	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Chemical Oxygen Demand	**1600**	10	"	"	1C16009	03/16/11	03/16/11	SM 5220D	
Chromium	**2.1**	0.50	ug/l	"	1C11004	03/11/11	03/16/11	SM 3113 B	
Copper	ND	2.5	"	"	"	"	03/15/11	"	
Iron	**0.33**	0.050	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7-Tot.	
Fluoride	ND	0.010	"	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Mercury	ND	0.10	ug/l	"	1C14004	03/14/11	03/16/11	EPA 245.1	
Magnesium	**1100**	0.20	mg/l	10	1C10011	03/10/11	03/16/11	EPA 200.7	
Manganese	**0.013**	0.010	"	1	"	"	"	"	
Molybdenum	ND	0.020	"	"	"	"	03/16/11	"	
Nickel	ND	2.5	ug/l	"	1C11004	03/11/11	03/16/11	SM 3113 B	
Nitrate as N	ND	0.010	mg/l	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Nitrite as N	ND	0.010	"	"	"	"	"	"	
Phosphorus	ND	0.060	"	"	1C10012	03/10/11	03/16/11	EPA 200.7	
Lead	ND	2.5	ug/l	"	1C11004	03/11/11	03/15/11	SM 3113 B	
Antimony	ND	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Selenium	ND	0.050	"	"	"	"	"	"	
Tin	ND	0.20	"	"	"	"	03/16/11	"	
Total Suspended Solids	**6.8**	0.40	"	"	1C10004	03/09/11	03/10/11	SM 2540 D	
Sulfate as SO4	**2600**	0.50	"	50	1C10007	03/10/11	03/10/11	EPA 300.0	
Titanium	ND	0.050	"	1	1C10011	03/10/11	03/16/11	EPA 200.7	
Thallium	ND	0.50	"	"	"	"	03/16/11	"	
Zinc	ND	0.060	"	"	"	"	"	"	

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Discharge-Composite (1103039-02) Water Sampled: 03/09/11 08:20 Received: 03/09/11 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Silver	ND	0.50	ug/l	1	1C11004	03/11/11	03/15/11	SM 3113 B	
Aluminum	**0.061**	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	J
Arsenic	**2.7**	1.0	ug/l	"	1C10010	03/10/11	03/14/11	EPA 200.8	
Boron	**3.1**	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Barium	ND	0.40	"	"	"	"	"	"	
Beryllium	ND	0.010	"	"	"	"	"	"	
Bromide	**4.30**	0.0100	"	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Cadmium	ND	0.50	ug/l	"	1C11004	03/11/11	03/14/11	SM 3113 B	
Cobalt	ND	0.20	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Chemical Oxygen Demand	**1700**	10	"	"	1C16009	03/16/11	03/16/11	SM 5220D	
Chromium	**1.9**	0.50	ug/l	"	1C11004	03/11/11	03/16/11	SM 3113 B	
Copper	ND	2.5	"	"	"	"	03/15/11	"	
Iron	**0.16**	0.050	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7-Tot.	
Fluoride	ND	0.010	"	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Mercury	ND	0.10	ug/l	"	1C14004	03/14/11	03/16/11	EPA 245.1	
Magnesium	**1100**	0.20	mg/l	10	1C10011	03/10/11	03/16/11	EPA 200.7	
Manganese	**0.011**	0.010	"	1	"	"	"	"	
Molybdenum	ND	0.020	"	"	"	"	"	"	
Nickel	ND	2.5	ug/l	"	1C11004	03/11/11	03/16/11	SM 3113 B	
Nitrate as N	ND	0.010	mg/l	"	1C10007	03/10/11	03/10/11	EPA 300.0	
Nitrite as N	ND	0.010	"	"	"	"	"	"	
Phosphorus	ND	0.060	"	"	1C10012	03/10/11	03/16/11	EPA 200.7	
Lead	ND	2.5	ug/l	"	1C11004	03/11/11	03/15/11	SM 3113 B	
Antimony	ND	0.10	mg/l	"	1C10011	03/10/11	03/16/11	EPA 200.7	
Selenium	ND	0.050	"	"	"	"	"	"	
Tin	ND	0.20	"	"	"	"	03/16/11	"	
Total Suspended Solids	**6.3**	0.40	"	"	1C10004	03/09/11	03/10/11	SM 2540 D	
Sulfate as SO4	**2700**	0.50	"	50	1C10007	03/10/11	03/10/11	EPA 300.0	
Titanium	ND	0.050	"	1	1C10011	03/10/11	03/16/11	EPA 200.7	
Thallium	ND	0.50	"	"	"	"	"	"	
Zinc	ND	0.060	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Intake-Grab 1 (1103039-03) Water	**Sampled: 03/08/11 06:45**	**Received: 03/09/11 11:00**							
HEM	**5.9**	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.09**		pH Units	"	"	"	"	SM 4500-H+ B	
Intake-Grab 2 (1103039-04) Water	**Sampled: 03/08/11 13:55**	**Received: 03/09/11 11:00**							
HEM	**5.7**	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.06**		pH Units	"	"	"	"	SM 4500-H+ B	
Intake-Grab 3 (1103039-05) Water	**Sampled: 03/08/11 18:50**	**Received: 03/09/11 11:00**							
HEM	ND	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	J
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.09**		pH Units	"	"	"	"	SM 4500-H+ B	
Intake-Grab 4 (1103039-06) Water	**Sampled: 03/09/11 01:00**	**Received: 03/09/11 11:00**							
HEM	ND	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	J
Chlorine Residual	ND	40	ug/l	"	1C09012	03/09/11	03/09/11	SM 4500-Cl G	
pH	**8.04**		pH Units	"	"	"	"	SM 4500-H+ B	
Intake-Grabs 1-4 Composite (1103039-07) Water	**Sampled: 03/09/11 01:00**	**Received: 03/09/11 11:00**							
Aldrin	ND	0.0400	ug/l	1	1C09011	03/09/11	03/10/11	EPA 608	
alpha-BHC	ND	0.0300	"	"	"	"	"	"	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Chlordane (tech)	ND	1.00	"	"	"	"	"	"	
4,4′-DDD	ND	0.110	"	"	"	"	"	"	
4,4′-DDE	ND	0.0400	"	"	"	"	"	"	
4,4′-DDT	ND	0.120	"	"	"	"	"	"	
Dieldrin	ND	0.0200	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.660	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Endrin aldehyde	ND	0.230	"	"	"	"	"	"	
Heptachlor	ND	0.0300	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.830	"	"	"	"	"	"	
Methoxychlor	ND	1.76	"	"	"	"	"	"	
Toxaphene	ND	1.00	"	"	"	"	"	"	
PCB-1016	ND	1.00	"	"	"	"	"	"	
PCB-1221	ND	1.00	"	"	"	"	"	"	
PCB-1232	ND	1.00	"	"	"	"	"	"	

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Intake-Grabs 1-4 Composite (1103039-07) Water Sampled: 03/09/11 01:00 Received: 03/09/11 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PCB-1242	ND	1.00	ug/l	1	1C09011	03/09/11	03/10/11	EPA 608	
PCB-1248	ND	1.00	"	"	"	"	"	"	
PCB-1254	ND	1.00	"	"	"	"	"	"	
PCB-1260	ND	1.00	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81.2 %*	*10-124*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.7 %*	*10-133*		"	"	"	"	
Phenol	ND	1.5	"	"	1C10015	03/10/11	03/11/11	EPA 625	
Bis(2-chloroethyl)ether	ND	5.7	"	"	"	"	"	"	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
Benzidine	ND	10	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.7	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10	"	"	"	"	"	"	
Hexachloroethane	ND	1.6	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	
Isophorone	ND	2.2	"	"	"	"	"	"	
2-Nitrophenol	ND	3.6	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.7	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.9	"	"	"	"	"	"	
Naphthalene	ND	1.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.90	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.6	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.9	"	"	"	"	"	"	
Acenaphthylene	ND	3.5	"	"	"	"	"	"	
Acenaphthene	ND	1.9	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.7	"	"	"	"	"	"	
Diethyl phthalate	ND	1.9	"	"	"	"	"	"	
Fluorene	ND	1.9	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	4.2	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.9	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.9	"	"	"	"	"	"	
Pentachlorophenol	ND	3.6	"	"	"	"	"	"	
Phenanthrene	ND	5.4	"	"	"	"	"	"	
Anthracene	ND	1.9	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	2.5	"	"	"	"	"	"	
Fluoranthene	ND	2.2	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Intake-Grabs 1-4 Composite (1103039-07) Water Sampled: 03/09/11 01:00 Received: 03/09/11 11:00									
Pyrene	ND	1.9	ug/l	1	1C10015	03/10/11	03/11/11	EPA 625	
Butyl benzyl phthalate	ND	2.5	"	"	"	"	"	"	
Benzo (a) anthracene	ND	7.8	"	"	"	"	"	"	
Chrysene	ND	2.5	"	"	"	"	"	"	
3,3′-Dichlorobenzidine	ND	16	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.9	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	2.5	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.5	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	4.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	2.5	"	"	"	"	"	"	
Benzo (a) pyrene	ND	7.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.7	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	2.5	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	4.1	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*49.1 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*54.7 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*71.0 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*71.6 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*97.0 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*87.3 %*	*33-141*		"	"	"	"	
Chloromethane	ND	5.0	"	"	1C10006	03/10/11	03/10/11	EPA 8260B	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
Acetone	ND	50	"	"	"	"	"	"	
Methylene chloride	ND	25	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	10	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Intake-Grabs 1-4 Composite (1103039-07) Water Sampled: 03/09/11 01:00 Received: 03/09/11 11:00									
4-Methyl-2-pentanone	ND	10	ug/l	1	1C10006	03/10/11	03/10/11	EPA 8260B	
Toluene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*99.1 %*	*88-110*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*113 %*	*68-121*		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Discharge-Grab 1 (1103039-08) Water	**Sampled: 03/08/11 07:08**		**Received: 03/09/11 11:00**						
HEM	**6.1**	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.04**		pH Units	"	"	"	"	SM 4500-H+ B	
Discharge-Grab 2 (1103039-09) Water	**Sampled: 03/08/11 14:07**		**Received: 03/09/11 11:00**						
HEM	ND	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	J
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.09**		pH Units	"	"	"	"	SM 4500-H+ B	
Discharge-Grab 3 (1103039-10) Water	**Sampled: 03/08/11 19:12**		**Received: 03/09/11 11:00**						
HEM	ND	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	J
Chlorine Residual	ND	40	ug/l	"	1C09012	03/08/11	03/08/11	SM 4500-Cl G	
pH	**8.01**		pH Units	"	"	"	"	SM 4500-H+ B	
Discharge-Grab 4 (1103039-11) Water	**Sampled: 03/09/11 01:15**		**Received: 03/09/11 11:00**						
HEM	**5.7**	5.0	mg/l	1	1C10014	03/10/11	03/10/11	EPA 1664A	
Chlorine Residual	ND	40	ug/l	"	1C09012	03/09/11	03/09/11	SM 4500-Cl G	
pH	**8.00**		pH Units	"	"	"	"	SM 4500-H+ B	
Discharge-Grabs 1-4 Composite (1103039-12) Water		**Sampled: 03/09/11 01:15**			**Received: 03/09/11 11:00**				
Aldrin	ND	0.0400	ug/l	1	1C09011	03/09/11	03/10/11	EPA 608	
alpha-BHC	ND	0.0300	"	"	"	"	"	"	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Chlordane (tech)	ND	1.00	"	"	"	"	"	"	
4,4′-DDD	ND	0.110	"	"	"	"	"	"	
4,4′-DDE	ND	0.0400	"	"	"	"	"	"	
4,4′-DDT	ND	0.120	"	"	"	"	"	"	
Dieldrin	ND	0.0200	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.660	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Endrin aldehyde	ND	0.230	"	"	"	"	"	"	
Heptachlor	ND	0.0300	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.830	"	"	"	"	"	"	
Methoxychlor	ND	1.76	"	"	"	"	"	"	
Toxaphene	ND	1.00	"	"	"	"	"	"	
PCB-1016	ND	1.00	"	"	"	"	"	"	
PCB-1221	ND	1.00	"	"	"	"	"	"	
PCB-1232	ND	1.00	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Discharge-Grabs 1-4 Composite (1103039-12) Water Sampled: 03/09/11 01:15 Received: 03/09/11 11:00									
PCB-1242	ND	1.00	ug/l	1	1C09011	03/09/11	03/10/11	EPA 608	
PCB-1248	ND	1.00	"	"	"	"	"	"	
PCB-1254	ND	1.00	"	"	"	"	"	"	
PCB-1260	ND	1.00	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*10-124*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*101 %*	*10-133*		"	"	"	"	
Phenol	ND	1.5	"	"	1C10015	03/10/11	03/11/11	EPA 625	
Bis(2-chloroethyl)ether	ND	5.7	"	"	"	"	"	"	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
Benzidine	ND	10	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.7	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10	"	"	"	"	"	"	
Hexachloroethane	ND	1.6	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	
Isophorone	ND	2.2	"	"	"	"	"	"	
2-Nitrophenol	ND	3.6	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.7	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.9	"	"	"	"	"	"	
Naphthalene	ND	1.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.90	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.6	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.9	"	"	"	"	"	"	
Acenaphthylene	ND	3.5	"	"	"	"	"	"	
Acenaphthene	ND	1.9	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.7	"	"	"	"	"	"	
Diethyl phthalate	ND	1.9	"	"	"	"	"	"	
Fluorene	ND	1.9	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	4.2	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.9	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.9	"	"	"	"	"	"	
Pentachlorophenol	ND	3.6	"	"	"	"	"	"	
Phenanthrene	ND	5.4	"	"	"	"	"	"	
Anthracene	ND	1.9	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	2.5	"	"	"	"	"	"	
Fluoranthene	ND	2.2	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Discharge-Grabs 1-4 Composite (1103039-12) Water	**Sampled: 03/09/11 01:15**			**Received: 03/09/11 11:00**					
Pyrene	ND	1.9	ug/l	1	1C10015	03/10/11	03/11/11	EPA 625	
Butyl benzyl phthalate	ND	2.5	"	"	"	"	"	"	
Benzo (a) anthracene	ND	7.8	"	"	"	"	"	"	
Chrysene	ND	2.5	"	"	"	"	"	"	
3,3′-Dichlorobenzidine	ND	16	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.9	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	2.5	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.5	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	4.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	2.5	"	"	"	"	"	"	
Benzo (a) pyrene	ND	7.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.7	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	2.5	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	4.1	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*50.5 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*58.1 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*73.1 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*79.2 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*98.1 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*86.9 %*	*33-141*		"	"	"	"	
Chloromethane	ND	5.0	"	"	1C10006	03/10/11	03/10/11	EPA 8260B	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
Acetone	ND	50	"	"	"	"	"	"	
Methylene chloride	ND	25	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	10	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Discharge-Grabs 1-4 Composite (1103039-12) Water	**Sampled: 03/09/11 01:15**		**Received: 03/09/11 11:00**						
4-Methyl-2-pentanone	ND	10	ug/l	1	1C10006	03/10/11	03/10/11	EPA 8260B	
Toluene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.7 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*88-110*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*114 %*	*68-121*		"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C09011 - 3510C										
Blank (1C09011-BLK1)				Prepared: 03/09/11 Analyzed: 03/10/11						
Surrogate: Tetrachloro-meta-xylene	*0.0945*		*ug/l*	*0.200*		*47.3*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.195*		*"*	*0.200*		*97.3*	*10-133*			
Aldrin	ND	0.0400	"							
alpha-BHC	ND	0.0300	"							
beta-BHC	ND	0.0600	"							
delta-BHC	ND	0.0900	"							
gamma-BHC (Lindane)	ND	0.0400	"							
Chlordane (tech)	ND	1.00	"							
4,4'-DDD	ND	0.110	"							
4,4'-DDE	ND	0.0400	"							
4,4'-DDT	ND	0.120	"							
Dieldrin	ND	0.0200	"							
Endosulfan I	ND	0.140	"							
Endosulfan II	ND	0.0400	"							
Endosulfan sulfate	ND	0.660	"							
Endrin	ND	0.0600	"							
Endrin aldehyde	ND	0.230	"							
Heptachlor	ND	0.0300	"							
Heptachlor epoxide	ND	0.830	"							
Methoxychlor	ND	1.76	"							
Toxaphene	ND	1.00	"							
PCB-1016	ND	1.00	"							
PCB-1221	ND	1.00	"							
PCB-1232	ND	1.00	"							
PCB-1242	ND	1.00	"							
PCB-1248	ND	1.00	"							
PCB-1254	ND	1.00	"							
PCB-1260	ND	1.00	"							
LCS (1C09011-BS1)				Prepared: 03/09/11 Analyzed: 03/10/11						
Surrogate: Tetrachloro-meta-xylene	*0.0958*		*ug/l*	*0.200*		*47.9*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.200*		*"*	*0.200*		*99.8*	*10-133*			
Aldrin	0.0674	0.0400	"	0.100		67.4	42-122			
alpha-BHC	0.0784	0.0300	"	0.100		78.4	37-134			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C09011 - 3510C										
LCS (1C09011-BS1)				Prepared: 03/09/11	Analyzed: 03/10/11					
beta-BHC	0.0898	0.0600	ug/l	0.100		89.8	14-147			
delta-BHC	0.0904	0.0900	"	0.100		90.4	19-140			
gamma-BHC (Lindane)	0.0808	0.0400	"	0.100		80.8	32-127			
Chlordane (tech)	ND	1.00	"				45-119			
4,4′-DDD	0.191	0.110	"	0.200		95.5	30-141			
4,4′-DDE	0.181	0.0400	"	0.200		90.7	30-145			
4,4′-DDT	0.187	0.120	"	0.200		93.3	25-160			
Dieldrin	0.191	0.0200	"	0.200		95.3	36-146			
Endosulfan I	0.0888	0.140	"	0.100		88.8	45-153			
Endosulfan II	0.201	0.0400	"	0.200		101	2-202			
Endosulfan sulfate	0.185	0.660	"	0.200		92.7	26-144			
Endrin	0.208	0.0600	"	0.200		104	30-147			
Heptachlor	0.0819	0.0300	"	0.100		81.9	34-111			
Heptachlor epoxide	0.0805	0.830	"	0.100		80.5	37-142			
Toxaphene	ND	1.00	"				41-126			
PCB-1016	ND	1.00	"				50-114			
PCB-1221	ND	1.00	"				15-178			
PCB-1232	ND	1.00	"				10-215			
PCB-1242	ND	1.00	"				39-150			
PCB-1248	ND	1.00	"				38-158			
PCB-1254	ND	1.00	"				29-131			
PCB-1260	ND	1.00	"				8-127			
LCS Dup (1C09011-BSD1)				Prepared: 03/09/11	Analyzed: 03/10/11					
Surrogate: Tetrachloro-meta-xylene	*0.0911*		*ug/l*	*0.200*		*45.5*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.192*		*"*	*0.200*		*95.9*	*10-133*			
Aldrin	0.0623	0.0400	"	0.100		62.3	42-122	7.83	200	
alpha-BHC	0.0820	0.0300	"	0.100		82.0	37-134	4.45	200	
beta-BHC	0.0897	0.0600	"	0.100		89.7	14-147	0.100	200	
delta-BHC	0.0905	0.0900	"	0.100		90.5	19-140	0.0774	200	
gamma-BHC (Lindane)	0.0814	0.0400	"	0.100		81.4	32-127	0.653	200	
Chlordane (tech)	ND	1.00	"				45-119		200	
4,4′-DDD	0.189	0.110	"	0.200		94.4	30-141	1.19	200	
4,4′-DDE	0.181	0.0400	"	0.200		90.7	30-145	0.00	200	
4,4′-DDT	0.183	0.120	"	0.200		91.5	25-160	1.97	200	
Dieldrin	0.192	0.0200	"	0.200		95.9	36-146	0.612	200	

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Batch 1C09011 - 3510C

LCS Dup (1C09011-BSD1) Prepared: 03/09/11 Analyzed: 03/10/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Endosulfan I	0.0900	0.140	ug/l	0.100		90.0	45-153	1.32	200	
Endosulfan II	0.196	0.0400	"	0.200		98.1	2-202	2.53	200	
Endosulfan sulfate	0.190	0.660	"	0.200		95.2	26-144	2.66	200	
Endrin	0.210	0.0600	"	0.200		105	30-147	0.541	200	
Heptachlor	0.0791	0.0300	"	0.100		79.1	34-111	3.52	200	
Heptachlor epoxide	0.0832	0.830	"	0.100		83.2	37-142	3.32	200	
Toxaphene	ND	1.00	"				41-126		200	
PCB-1016	ND	1.00	"				50-114		200	
PCB-1221	ND	1.00	"				15-178		200	
PCB-1232	ND	1.00	"				10-215		200	
PCB-1242	ND	1.00	"				39-150		200	
PCB-1248	ND	1.00	"				38-158		200	
PCB-1254	ND	1.00	"				29-131		200	
PCB-1260	ND	1.00	"				8-127		200	

Matrix Spike (1C09011-MS1) **Source: 1103039-12** Prepared: 03/09/11 Analyzed: 03/10/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Tetrachloro-meta-xylene	*0.211*		*ug/l*	*0.200*		*106*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.206*		*"*	*0.200*		*103*	*10-133*			
Aldrin	0.0861	0.0400	"	0.100	0.00	86.1	42-122			
alpha-BHC	0.0840	0.0300	"	0.100	0.00	84.0	37-134			
beta-BHC	0.102	0.0600	"	0.100	0.00	102	17-147			
delta-BHC	0.0959	0.0900	"	0.100	0.00	95.9	19-140			
gamma-BHC (Lindane)	0.0836	0.0400	"	0.100	0.00	83.6	32-127			
Chlordane (tech)	ND	1.00	"		0.00		45-119			
4,4′-DDD	0.189	0.110	"	0.200	0.00	94.6	31-141			
4,4′-DDE	0.190	0.0400	"	0.200	0.00	94.9	30-145			
4,4′-DDT	0.188	0.120	"	0.200	0.00	94.0	25-160			
Dieldrin	0.198	0.0200	"	0.200	0.00	99.2	36-146			
Endosulfan I	0.0922	0.140	"	0.100	0.00	92.2	45-153			
Endosulfan II	0.208	0.0400	"	0.200	0.00	104	2-202			
Endosulfan sulfate	0.197	0.660	"	0.200	0.00	98.4	26-144			
Endrin	0.221	0.0600	"	0.200	0.00	110	30-147			
Heptachlor	0.0948	0.0300	"	0.100	0.00	94.8	34-111			
Heptachlor epoxide	0.0819	0.830	"	0.100	0.00	81.9	37-142			
Toxaphene	ND	1.00	"		0.00		41-126			
PCB-1016	ND	1.00	"		0.00		50-114			

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Batch 1C09011 - 3510C

Matrix Spike (1C09011-MS1) **Source: 1103039-12** Prepared: 03/09/11 Analyzed: 03/10/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1221	ND	1.00	ug/l		0.00		15-178			
PCB-1232	ND	1.00	"		0.00		10-215			
PCB-1242	ND	1.00	"		0.00		39-150			
PCB-1248	ND	1.00	"		0.00		38-158			
PCB-1254	ND	1.00	"		0.00		29-131			
PCB-1260	ND	1.00	"		0.00		8-127			

Matrix Spike Dup (1C09011-MSD1) **Source: 1103039-12** Prepared: 03/09/11 Analyzed: 03/10/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Tetrachloro-meta-xylene	*0.183*		*ug/l*	*0.200*		*91.3*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.203*		*"*	*0.200*		*101*	*10-133*			
Aldrin	0.0811	0.0400	"	0.100	0.00	81.1	42-122	5.96	200	
alpha-BHC	0.0812	0.0300	"	0.100	0.00	81.2	37-134	3.45	200	
beta-BHC	0.103	0.0600	"	0.100	0.00	103	17-147	1.29	200	
delta-BHC	0.0936	0.0900	"	0.100	0.00	93.6	19-140	2.39	200	
gamma-BHC (Lindane)	0.0797	0.0400	"	0.100	0.00	79.7	32-127	4.76	200	
Chlordane (tech)	ND	1.00	"		0.00		45-119		200	
4,4′-DDD	0.184	0.110	"	0.200	0.00	92.1	31-141	2.70	200	
4,4′-DDE	0.182	0.0400	"	0.200	0.00	91.0	30-145	4.23	200	
4,4′-DDT	0.181	0.120	"	0.200	0.00	90.7	25-160	3.62	200	
Dieldrin	0.192	0.0200	"	0.200	0.00	95.8	36-146	3.41	200	
Endosulfan I	0.0890	0.140	"	0.100	0.00	89.0	45-153	3.51	200	
Endosulfan II	0.202	0.0400	"	0.200	0.00	101	2-202	2.58	200	
Endosulfan sulfate	0.189	0.660	"	0.200	0.00	94.7	26-144	3.86	200	
Endrin	0.214	0.0600	"	0.200	0.00	107	30-147	3.19	200	
Heptachlor	0.0882	0.0300	"	0.100	0.00	88.2	34-111	7.10	200	
Heptachlor epoxide	0.0795	0.830	"	0.100	0.00	79.5	37-142	3.05	200	
Toxaphene	ND	1.00	"		0.00		41-126		200	
PCB-1016	ND	1.00	"		0.00		50-114		200	
PCB-1221	ND	1.00	"		0.00		15-178		200	
PCB-1232	ND	1.00	"		0.00		10-215		200	
PCB-1242	ND	1.00	"		0.00		39-150		200	
PCB-1248	ND	1.00	"		0.00		38-158		200	
PCB-1254	ND	1.00	"		0.00		29-131		200	
PCB-1260	ND	1.00	"		0.00		8-127		200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C09011 - 3510C										
Reference (1C09011-SRM1)				Prepared: 03/09/11 Analyzed: 03/10/11						
Surrogate: Tetrachloro-meta-xylene	*0.0929*		*ug/l*	*0.200*		*46.4*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.201*		*"*	*0.200*		*101*	*10-133*			
Aldrin	0.0687	0.0400	"	0.100		68.7	0-200			
alpha-BHC	0.0846	0.0300	"	0.100		84.6	0-200			
beta-BHC	0.0931	0.0600	"	0.100		93.1	0-200			
delta-BHC	0.0942	0.0900	"	0.100		94.2	0-200			
gamma-BHC (Lindane)	0.0855	0.0400	"	0.100		85.5	0-200			
4,4'-DDD	0.196	0.110	"	0.200		97.8	0-200			
4,4'-DDE	0.188	0.0400	"	0.200		93.9	0-200			
4,4'-DDT	0.190	0.120	"	0.200		95.1	0-200			
Dieldrin	0.198	0.0200	"	0.200		98.9	0-200			
Endosulfan I	0.0928	0.140	"	0.100		92.8	0-200			
Endosulfan II	0.204	0.0400	"	0.200		102	0-200			
Endosulfan sulfate	0.191	0.660	"	0.200		95.7	0-200			
Endrin	0.215	0.0600	"	0.200		108	0-200			
Endrin aldehyde	0.204	0.230	"	0.200		102	0-200			
Heptachlor	0.0851	0.0300	"	0.100		85.1	0-200			
Heptachlor epoxide	0.0850	0.830	"	0.100		85.0	0-200			
Methoxychlor	1.03	1.76	"	1.00		103	0-200			
Batch 1C10004 - No Prep. -TG										
Blank (1C10004-BLK1)				Prepared: 03/09/11 Analyzed: 03/10/11						
Total Suspended Solids	ND	0.40	mg/l							
Duplicate (1C10004-DUP1)		**Source: 1103039-02**		Prepared: 03/09/11 Analyzed: 03/10/11						
Total Suspended Solids	6.20	0.40	mg/l		6.30			1.60	20	
Reference (1C10004-SRM1)				Prepared: 03/09/11 Analyzed: 03/10/11						
Total Suspended Solids	80.4	0.40	mg/l	80.0		100	85.3-107.5			
Batch 1C10006 - No Prep. GC/MS										

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (1C10006-BLK1)				Prepared & Analyzed: 03/10/11						
Surrogate: Dibromofluoromethane	*51.2*		*ug/l*	*50.0*		*102*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*48.3*		*"*	*50.0*		*96.5*	*80-120*			
Surrogate: Toluene-d8	*47.8*		*"*	*50.0*		*95.6*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*55.8*		*"*	*50.0*		*112*	*68-121*			
Chloromethane	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
Bromomethane	ND	5.0	"							
Chloroethane	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
Acetone	ND	50	"							
Methylene chloride	ND	25	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
2-Butanone	ND	10	"							
cis-1,2-Dichloroethene	ND	5.0	"							
Chloroform	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
Benzene	ND	5.0	"							
Trichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
2-Chloroethylvinyl ether	ND	10	"							
trans-1,3-Dichloropropene	ND	5.0	"							
4-Methyl-2-pentanone	ND	10	"							
Toluene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
2-Hexanone	ND	10	"							
Dibromochloromethane	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
Bromoform	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10006 - No Prep. GC/MS										
Blank (1C10006-BLK1)				Prepared & Analyzed: 03/10/11						
1,4-Dichlorobenzene	ND	5.0	ug/l							
1,2-Dichlorobenzene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							
Naphthalene	ND	5.0	"							
Methyl tert-butyl ether	ND	10	"							
Di-isopropyl ether	ND	20	"							
Ethyl tert-butyl ether	ND	20	"							
Tert-amyl methyl ether	ND	20	"							
LCS (1C10006-BS1)				Prepared & Analyzed: 03/10/11						
Surrogate: Dibromofluoromethane	*51.4*		*ug/l*	*50.0*		*103*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*47.4*		*"*	*50.0*		*94.7*	*80-120*			
Surrogate: Toluene-d8	*48.4*		*"*	*50.0*		*96.8*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*56.3*		*"*	*50.0*		*113*	*68-121*			
1,1-Dichloroethene	55.8	5.0	"	50.0		112	61-145			
Benzene	49.5	5.0	"	50.0		98.9	76-127			
Trichloroethene	50.0	5.0	"	50.0		100	71-120			
Toluene	49.8	5.0	"	50.0		99.5	76-125			
Chlorobenzene	52.8	5.0	"	50.0		106	75-130			
LCS Dup (1C10006-BSD1)				Prepared & Analyzed: 03/10/11						
Surrogate: Dibromofluoromethane	*51.8*		*ug/l*	*50.0*		*104*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*51.6*		*"*	*50.0*		*103*	*80-120*			
Surrogate: Toluene-d8	*48.7*		*"*	*50.0*		*97.4*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*55.5*		*"*	*50.0*		*111*	*68-121*			
1,1-Dichloroethene	60.9	5.0	"	50.0		122	61-145	8.78	14	
Benzene	51.4	5.0	"	50.0		103	76-127	3.85	11	
Trichloroethene	53.7	5.0	"	50.0		107	71-120	7.04	14	
Toluene	54.2	5.0	"	50.0		108	76-125	8.58	13	
Chlorobenzene	57.2	5.0	"	50.0		114	75-130	8.02	13	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10006 - No Prep. GC/MS										
Matrix Spike (1C10006-MS1)	**Source: 1103039-07**			Prepared & Analyzed: 03/10/11						
Surrogate: Dibromofluoromethane	*53.1*		*ug/l*	*50.0*		*106*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*49.1*		"	*50.0*		*98.1*	*80-120*			
Surrogate: Toluene-d8	*48.1*		"	*50.0*		*96.2*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*56.9*		"	*50.0*		*114*	*68-121*			
1,1-Dichloroethene	59.4	5.0	"	50.0	ND	119	61-145			
Benzene	48.8	5.0	"	50.0	ND	97.5	76-127			
Trichloroethene	48.8	5.0	"	50.0	ND	97.6	71-120			
Toluene	50.8	5.0	"	50.0	ND	102	76-125			
Chlorobenzene	54.0	5.0	"	50.0	ND	108	75-130			
Matrix Spike Dup (1C10006-MSD1)	**Source: 1103039-07**			Prepared & Analyzed: 03/10/11						
Surrogate: Dibromofluoromethane	*52.6*		*ug/l*	*50.0*		*105*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*50.3*		"	*50.0*		*101*	*80-120*			
Surrogate: Toluene-d8	*49.1*		"	*50.0*		*98.3*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*55.2*		"	*50.0*		*110*	*68-121*			
1,1-Dichloroethene	62.0	5.0	"	50.0	ND	124	61-145	4.18	14	
Benzene	49.4	5.0	"	50.0	ND	98.7	76-127	1.24	11	
Trichloroethene	51.0	5.0	"	50.0	ND	102	71-120	4.49	14	
Toluene	51.8	5.0	"	50.0	ND	104	76-125	1.83	13	
Chlorobenzene	52.8	5.0	"	50.0	ND	106	75-130	2.30	13	
Batch 1C10007 - General Preparation										
Blank (1C10007-BLK1)				Prepared & Analyzed: 03/10/11						
Sulfate as SO4	ND	0.010	mg/l							
Bromide	ND	0.0100	"							
Nitrite as N	ND	0.010	"							
Fluoride	ND	0.010	"							
Nitrate as N	ND	0.010	"							
LCS (1C10007-BS1)				Prepared & Analyzed: 03/10/11						
Fluoride	0.793	0.010	mg/l	0.800		99.1	90-110			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10007 - General Preparation										
LCS (1C10007-BS1)				Prepared & Analyzed: 03/10/11						
Bromide	3.96	0.0100	mg/l	4.00		98.9	80-120			
Nitrite as N	0.991	0.010	"	1.00		99.1	90-110			
Sulfate as SO4	5.98	0.010	"	6.00		99.6	90-110			
Nitrate as N	0.963	0.010	"	1.00		96.3	90-110			
LCS Dup (1C10007-BSD1)				Prepared & Analyzed: 03/10/11						
Fluoride	0.788	0.010	mg/l	0.800		98.5	90-110	0.633	20	
Sulfate as SO4	5.97	0.010	"	6.00		99.5	90-110	0.134	200	
Nitrite as N	0.989	0.010	"	1.00		98.9	90-110	0.202	20	
Bromide	3.95	0.0100	"	4.00		98.7	80-120	0.152	20	
Nitrate as N	0.965	0.010	"	1.00		96.5	90-110	0.207	20	
Matrix Spike (1C10007-MS1)	**Source: 1103039-01**			Prepared & Analyzed: 03/10/11						
Fluoride	3.47	0.010	mg/l	0.800	ND	434	80-120			QM-12
Sulfate as SO4	1040	0.010	"	6.00	2640	NR	80-120			QM-12
Bromide	5.06	0.0100	"	4.00	4.65	10.2	75-125			QM-12
Nitrite as N	0.821	0.010	"	1.00	ND	82.1	80-120			QM-12
Nitrate as N	1.93	0.010	"	1.00	ND	193	80-120			QM-12
Matrix Spike Dup (1C10007-MSD1)	**Source: 1103039-01**			Prepared & Analyzed: 03/10/11						
Fluoride	1.54	0.010	mg/l	0.800	ND	192	80-120	77.2	20	QM-12
Sulfate as SO4	1090	0.010	"	6.00	2640	NR	80-120	4.28	20	QM-12
Nitrite as N	0.719	0.010	"	1.00	ND	71.9	80-120	13.2	20	QM-12
Bromide	5.33	0.0100	"	4.00	4.65	16.9	75-125	5.20	20	QM-12
Nitrate as N	1.88	0.010	"	1.00	ND	188	80-120	2.31	20	QM-12
Batch 1C10010 - EPA 3010A										
Blank (1C10010-BLK1)				Prepared: 03/10/11 Analyzed: 03/14/11						
Arsenic	0.54	1.0	ug/l							J
LCS (1C10010-BS1)				Prepared: 03/10/11 Analyzed: 03/14/11						
Arsenic	1000	1.0	ug/l	1000		102	85-115			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10010 - EPA 3010A										
LCS (1C10010-BS1)				Prepared: 03/10/11 Analyzed: 03/14/11						
Matrix Spike (1C10010-MS1)		**Source: 1103039-02**		Prepared: 03/10/11 Analyzed: 03/14/11						
Arsenic	1200	1.0	ug/l	1000	2.7	117	70-130			
Matrix Spike Dup (1C10010-MSD1)		**Source: 1103039-02**		Prepared: 03/10/11 Analyzed: 03/14/11						
Arsenic	1200	1.0	ug/l	1000	2.7	119	70-130	1.44	20	
Batch 1C10011 - EPA 3005A										
Blank (1C10011-BLK1)				Prepared: 03/10/11 Analyzed: 03/16/11						
Zinc	ND	0.060	mg/l							
Beryllium	ND	0.010	"							
Manganese	ND	0.010	"							
Iron	0.0287	0.050	"							J
Aluminum	ND	0.10	"							
Magnesium	0.0640	0.020	"							A-01
Selenium	ND	0.050	"							
Thallium	ND	0.50	"							
Tin	ND	0.20	"							
Cobalt	ND	0.20	"							
Molybdenum	ND	0.020	"							
Antimony	ND	0.10	"							
Boron	ND	0.10	"							
Barium	ND	0.40	"							
Titanium	ND	0.050	"							
LCS (1C10011-BS1)				Prepared: 03/10/11 Analyzed: 03/16/11						
Tin	ND	0.20	mg/l				85-120			
Molybdenum	1.07	0.020	"	1.00		107	80-120			
Beryllium	1.01	0.010	"	1.00		101	85-120			
Titanium	0.996	0.050	"	1.00		99.6	80-120			
Antimony	1.05	0.10	"	1.00		105	80-120			
Magnesium	1.07	0.020	"	1.00		107	80-120			
Selenium	1.05	0.050	"	1.00		105	80-120			
Thallium	1.05	0.50	"	1.00		105	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10011 - EPA 3005A										
LCS (1C10011-BS1)				Prepared: 03/10/11		Analyzed: 03/16/11				
Boron	1.01	0.10	mg/l	1.00		101	80-120			
Aluminum	0.947	0.10	"	1.00		94.7	80-120			
Cobalt	1.04	0.20	"	1.00		104	80-120			
Barium	1.05	0.40	"	1.00		105	80-120			
Iron	1.09	0.050	"	1.00		109	80-120			
Manganese	1.02	0.010	"	1.00		102	80-120			
Zinc	1.05	0.060	"	1.00		105	80-120			
Matrix Spike (1C10011-MS1)		**Source: 1103039-02**		Prepared: 03/10/11		Analyzed: 03/16/11				
Thallium	0.555	0.50	mg/l	1.00	ND	55.5	75-125			QM-12
Aluminum	1.07	0.10	"	1.00	0.0607	101	80-125			
Magnesium	896	0.020	"	1.00	1130	NR	75-125			QM-02
Zinc	0.601	0.060	"	1.00	ND	60.1	75-125			QM-12
Tin	ND	0.20	"		ND		75-125			
Boron	3.79	0.10	"	1.00	3.10	68.7	75-125			QM-12
Manganese	0.778	0.010	"	1.00	0.0105	76.8	75-125			
Selenium	0.804	0.050	"	1.00	ND	80.4	75-125			
Cobalt	0.562	0.20	"	1.00	ND	56.2	75-125			QM-12
Molybdenum	0.765	0.020	"	1.00	ND	76.5	75-125			
Antimony	0.799	0.10	"	1.00	ND	79.9	75-125			
Barium	0.690	0.40	"	1.00	ND	69.0	75-125			QM-12
Iron	0.995	0.050	"	1.00	0.160	83.5	75-125			
Titanium	0.834	0.050	"	1.00	ND	83.4	75-125			
Beryllium	0.799	0.010	"	1.00	ND	79.9	75-125			
Matrix Spike Dup (1C10011-MSD1)		**Source: 1103039-02**		Prepared: 03/10/11		Analyzed: 03/16/11				
Thallium	0.545	0.50	mg/l	1.00	ND	54.5	75-125	1.94	20	QM-12
Tin	ND	0.20	"		ND		75-125		20	
Boron	3.83	0.10	"	1.00	3.10	73.2	75-125	1.17	20	QM-12
Selenium	0.785	0.050	"	1.00	ND	78.5	75-125	2.39	20	
Magnesium	909	0.020	"	1.00	1130	NR	75-125	1.37	20	QM-02
Barium	0.691	0.40	"	1.00	ND	69.1	75-125	0.191	20	QM-12
Molybdenum	0.761	0.020	"	1.00	ND	76.1	75-125	0.641	20	
Beryllium	0.814	0.010	"	1.00	ND	81.4	75-125	1.88	20	
Cobalt	0.557	0.20	"	1.00	ND	55.7	75-125	0.943	20	QM-12
Iron	1.02	0.050	"	1.00	0.160	86.2	75-125	2.63	20	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10011 - EPA 3005A										
Matrix Spike Dup (1C10011-MSD1)	**Source: 1103039-02**			Prepared: 03/10/11	Analyzed: 03/16/11					
Manganese	0.793	0.010	mg/l	1.00	0.0105	78.3	75-125	1.90	20	
Antimony	0.789	0.10	"	1.00	ND	78.9	75-125	1.25	20	
Aluminum	1.12	0.10	"	1.00	0.0607	106	75-125	4.72	20	
Titanium	0.851	0.050	"	1.00	ND	85.1	75-125	1.94	20	
Zinc	0.593	0.060	"	1.00	ND	59.3	75-125	1.41	20	QM-12
Batch 1C10012 - EPA 3005A										
Blank (1C10012-BLK1)				Prepared: 03/10/11	Analyzed: 03/16/11					
Phosphorus	ND	0.060	mg/l							
LCS (1C10012-BS1)				Prepared: 03/10/11	Analyzed: 03/16/11					
Phosphorus	5.28	0.060	mg/l	5.00		106	80-120			
Matrix Spike (1C10012-MS1)	**Source: 1103039-02**			Prepared: 03/10/11	Analyzed: 03/16/11					
Phosphorus	5.43	0.060	mg/l	5.00	ND	109	75-175			
Matrix Spike Dup (1C10012-MSD1)	**Source: 1103039-02**			Prepared: 03/10/11	Analyzed: 03/16/11					
Phosphorus	6.33	0.060	mg/l	5.00	ND	127	75-175	15.3	15	QM-11
Batch 1C10014 - No Prep. - TO										
Blank (1C10014-BLK1)				Prepared & Analyzed: 03/10/11						
HEM	ND	5.0	mg/l							
LCS (1C10014-BS1)				Prepared & Analyzed: 03/10/11						
HEM	40.1	5.0	mg/l	40.0		100	80-120			
Matrix Spike (1C10014-MS1)	**Source: 1103039-11**			Prepared & Analyzed: 03/10/11						
HEM	43.8	5.0	mg/l	40.0	5.70	95.2	78-118			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10014 - No Prep. - TO										
Reference (1C10014-SRM1)				Prepared: 03/02/11	Analyzed: 03/10/11					
HEM	70.4	5.0	mg/l	75.0		93.9	73.6-126.4			
Batch 1C10015 - EPA 3510C										
Blank (1C10015-BLK1)				Prepared: 03/10/11	Analyzed: 03/11/11					
Surrogate: 2-Fluorophenol	*48.8*		*ug/l*	*100*		*48.8*	*21-110*			
Surrogate: Phenol-d6	*48.1*		*"*	*100*		*48.1*	*10-110*			
Surrogate: Nitrobenzene-d5	*38.3*		*"*	*50.0*		*76.7*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*40.3*		*"*	*50.0*		*80.6*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*98.2*		*"*	*100*		*98.2*	*10-123*			
Surrogate: Terphenyl-d14	*45.6*		*"*	*50.0*		*91.3*	*33-141*			
Phenol	ND	1.5	"							
Bis(2-chloroethyl)ether	ND	5.7	"							
2-Chlorophenol	ND	3.3	"							
Benzidine	ND	10	"							
Bis(2-chloroisopropyl)ether	ND	5.7	"							
N-Nitrosodi-n-propylamine	ND	10	"							
Hexachloroethane	ND	1.6	"							
Nitrobenzene	ND	1.9	"							
Isophorone	ND	2.2	"							
2-Nitrophenol	ND	3.6	"							
2,4-Dimethylphenol	ND	2.7	"							
Bis(2-chloroethoxy)methane	ND	5.3	"							
1,2,4-Trichlorobenzene	ND	1.9	"							
Naphthalene	ND	1.6	"							
Hexachlorobutadiene	ND	0.90	"							
2,4-Dichlorophenol	ND	2.7	"							
4-Chloro-3-methylphenol	ND	3.0	"							
2,4,6-Trichlorophenol	ND	2.7	"							
Dimethyl phthalate	ND	1.6	"							
2,6-Dinitrotoluene	ND	1.9	"							
Acenaphthylene	ND	3.5	"							
Acenaphthene	ND	1.9	"							
2,4-Dinitrophenol	ND	42	"							
4-Nitrophenol	ND	2.4	"							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
Blank (1C10015-BLK1)				Prepared: 03/10/11 Analyzed: 03/11/11						
2,4-Dinitrotoluene	ND	5.7	ug/l							
Diethyl phthalate	ND	1.9	"							
Fluorene	ND	1.9	"							
4-Chlorophenyl phenyl ether	ND	4.2	"							
4,6-Dinitro-2-methylphenol	ND	24	"							
4-Bromophenyl phenyl ether	ND	1.9	"							
Hexachlorobenzene	ND	1.9	"							
Pentachlorophenol	ND	3.6	"							
Phenanthrene	ND	5.4	"							
Anthracene	ND	1.9	"							
Di-n-butyl phthalate	ND	2.5	"							
Fluoranthene	ND	2.2	"							
Pyrene	ND	1.9	"							
Butyl benzyl phthalate	ND	2.5	"							
Benzo (a) anthracene	ND	7.8	"							
Chrysene	ND	2.5	"							
3,3'-Dichlorobenzidine	ND	16	"							
2-Chloronaphthalene	ND	1.9	"							
Di-n-octyl phthalate	ND	2.5	"							
Bis(2-ethylhexyl)phthalate	ND	2.5	"							
Benzo (b) fluoranthene	ND	4.8	"							
Benzo (k) fluoranthene	ND	2.5	"							
Benzo (a) pyrene	ND	7.8	"							
Indeno (1,2,3-cd) pyrene	ND	3.7	"							
Dibenz (a,h) anthracene	ND	2.5	"							
Benzo (g,h,i) perylene	ND	4.1	"							
LCS (1C10015-BS1)				Prepared: 03/10/11 Analyzed: 03/11/11						
Surrogate: 2-Fluorophenol	*33.5*		*ug/l*	*100*		*33.5*	*21-110*			
Surrogate: Phenol-d6	*42.1*		*"*	*100*		*42.1*	*10-110*			
Surrogate: Nitrobenzene-d5	*37.3*		*"*	*50.0*		*74.7*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*40.8*		*"*	*50.0*		*81.7*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*87.3*		*"*	*100*		*87.3*	*10-123*			
Surrogate: Terphenyl-d14	*45.0*		*"*	*50.0*		*89.9*	*33-141*			
Phenol	34.6	1.5	"	100		34.6	5-112			
Bis(2-chloroethyl)ether	62.9	5.7	"	100		62.9	12-158			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
LCS (1C10015-BS1)				Prepared: 03/10/11		Analyzed: 03/11/11				
2-Chlorophenol	60.0	3.3	ug/l	100		60.0	23-134			
Bis(2-chloroisopropyl)ether	72.8	5.7	"	100		72.8	36-166			
N-Nitrosodi-n-propylamine	85.1	10	"	100		85.1	1-230			
Hexachloroethane	57.6	1.6	"	100		57.6	40-113			
Nitrobenzene	76.4	1.9	"	100		76.4	35-180			
Isophorone	84.6	2.2	"	100		84.6	21-196			
2-Nitrophenol	68.1	3.6	"	100		68.1	29-182			
2,4-Dimethylphenol	74.6	2.7	"	100		74.6	32-119			
Bis(2-chloroethoxy)methane	78.1	5.3	"	100		78.1	33-184			
1,2,4-Trichlorobenzene	65.2	1.9	"	100		65.2	44-142			
Naphthalene	71.5	1.6	"	100		71.5	21-133			
Hexachlorobutadiene	64.0	0.90	"	100		64.0	24-116			
2,4-Dichlorophenol	73.6	2.7	"	100		73.6	39-135			
4-Chloro-3-methylphenol	95.7	3.0	"	100		95.7	22-147			
2,4,6-Trichlorophenol	64.7	2.7	"	100		64.7	37-144			
Dimethyl phthalate	34.7	1.6	"	100		34.7	1-112			
2,6-Dinitrotoluene	95.7	1.9	"	100		95.7	50-158			
Acenaphthylene	87.7	3.5	"	100		87.7	33-145			
Acenaphthene	87.0	1.9	"	100		87.0	47-145			
2,4-Dinitrophenol	52.3	42	"	100		52.3	1-191			
4-Nitrophenol	27.0	2.4	"	100		27.0	1-132			
2,4-Dinitrotoluene	106	5.7	"	100		106	39-139			
Diethyl phthalate	72.6	1.9	"	100		72.6	1-114			
Fluorene	93.4	1.9	"	100		93.4	59-121			
4-Chlorophenyl phenyl ether	96.1	4.2	"	100		96.1	25-128			
4,6-Dinitro-2-methylphenol	57.5	24	"	100		57.5	1-181			
4-Bromophenyl phenyl ether	94.6	1.9	"	100		94.6	53-127			
Hexachlorobenzene	88.9	1.9	"	100		88.9	1-152			
Pentachlorophenol	66.3	3.6	"	100		66.3	14-176			
Phenanthrene	92.6	5.4	"	100		92.6	54-120			
Anthracene	91.2	1.9	"	100		91.2	27-133			
Di-n-butyl phthalate	95.0	2.5	"	100		95.0	1-118			
Fluoranthene	94.2	2.2	"	100		94.2	26-137			
Pyrene	86.3	1.9	"	100		86.3	52-115			
Butyl benzyl phthalate	90.6	2.5	"	100		90.6	1-152			
Benzo (a) anthracene	95.4	7.8	"	100		95.4	33-143			
Chrysene	95.6	2.5	"	100		95.6	17-168			
3,3'-Dichlorobenzidine	125	16	"	100		125	1-262			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
LCS (1C10015-BS1)				Prepared: 03/10/11		Analyzed: 03/11/11				
2-Chloronaphthalene	84.3	1.9	ug/l	100		84.3	60-118			
Di-n-octyl phthalate	88.4	2.5	"	100		88.4	40-146			
Bis(2-ethylhexyl)phthalate	94.8	2.5	"	100		94.8	8-158			
Benzo (b) fluoranthene	94.7	4.8	"	100		94.7	24-159			
Benzo (k) fluoranthene	91.2	2.5	"	100		91.2	11-162			
Benzo (a) pyrene	95.3	7.8	"	100		95.3	17-163			
Indeno (1,2,3-cd) pyrene	97.9	3.7	"	100		97.9	1-171			
Dibenz (a,h) anthracene	101	2.5	"	100		101	1-227			
Benzo (g,h,i) perylene	93.7	4.1	"	100		93.7	1-219			
LCS Dup (1C10015-BSD1)				Prepared: 03/10/11		Analyzed: 03/11/11				
Surrogate: 2-Fluorophenol	*37.0*		*ug/l*	*100*		*37.0*	*21-110*			
Surrogate: Phenol-d6	*38.6*		*"*	*100*		*38.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*31.8*		*"*	*50.0*		*63.6*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*34.4*		*"*	*50.0*		*68.8*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*87.8*		*"*	*100*		*87.8*	*10-123*			
Surrogate: Terphenyl-d14	*41.2*		*"*	*50.0*		*82.5*	*33-141*			
Phenol	31.1	1.5	"	100		31.1	5-112	10.7	200	
Bis(2-chloroethyl)ether	58.1	5.7	"	100		58.1	12-158	8.00	200	
2-Chlorophenol	56.8	3.3	"	100		56.8	23-134	5.58	200	
Bis(2-chloroisopropyl)ether	63.5	5.7	"	100		63.5	36-166	13.6	200	
N-Nitrosodi-n-propylamine	72.5	10	"	100		72.5	1-230	16.0	200	
Hexachloroethane	49.8	1.6	"	100		49.8	40-113	14.5	200	
Nitrobenzene	65.1	1.9	"	100		65.1	35-180	16.0	200	
Isophorone	71.0	2.2	"	100		71.0	21-196	17.5	200	
2-Nitrophenol	68.4	3.6	"	100		68.4	29-182	0.484	200	
2,4-Dimethylphenol	54.8	2.7	"	100		54.8	32-119	30.5	200	
Bis(2-chloroethoxy)methane	65.4	5.3	"	100		65.4	33-184	17.7	200	
1,2,4-Trichlorobenzene	54.7	1.9	"	100		54.7	44-142	17.4	200	
Naphthalene	59.0	1.6	"	100		59.0	21-133	19.1	200	
Hexachlorobutadiene	54.4	0.90	"	100		54.4	24-116	16.2	200	
2,4-Dichlorophenol	68.8	2.7	"	100		68.8	39-135	6.72	200	
4-Chloro-3-methylphenol	79.4	3.0	"	100		79.4	22-147	18.6	200	
2,4,6-Trichlorophenol	75.8	2.7	"	100		75.8	37-144	15.9	200	
Dimethyl phthalate	33.0	1.6	"	100		33.0	1-112	5.08	200	
2,6-Dinitrotoluene	81.8	1.9	"	100		81.8	50-158	15.6	200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
LCS Dup (1C10015-BSD1)				Prepared: 03/10/11 Analyzed: 03/11/11						
Acenaphthylene	72.7	3.5	ug/l	100		72.7	33-145	18.6	200	
Acenaphthene	72.1	1.9	"	100		72.1	47-145	18.7	200	
2,4-Dinitrophenol	82.9	42	"	100		82.9	1-191	45.2	200	
4-Nitrophenol	36.8	2.4	"	100		36.8	1-132	30.4	200	
2,4-Dinitrotoluene	87.7	5.7	"	100		87.7	39-139	18.6	200	
Diethyl phthalate	62.5	1.9	"	100		62.5	1-114	15.0	200	
Fluorene	77.4	1.9	"	100		77.4	59-121	18.7	200	
4-Chlorophenyl phenyl ether	78.0	4.2	"	100		78.0	25-128	20.8	200	
4,6-Dinitro-2-methylphenol	79.2	24	"	100		79.2	1-181	31.8	200	
4-Bromophenyl phenyl ether	77.2	1.9	"	100		77.2	53-127	20.3	200	
Hexachlorobenzene	72.0	1.9	"	100		72.0	1-152	21.1	200	
Pentachlorophenol	80.6	3.6	"	100		80.6	14-176	19.4	200	
Phenanthrene	74.5	5.4	"	100		74.5	54-120	21.7	200	
Anthracene	74.3	1.9	"	100		74.3	27-133	20.3	200	
Di-n-butyl phthalate	81.3	2.5	"	100		81.3	1-118	15.6	200	
Fluoranthene	78.5	2.2	"	100		78.5	26-137	18.1	200	
Pyrene	80.1	1.9	"	100		80.1	52-115	7.45	200	
Butyl benzyl phthalate	80.3	2.5	"	100		80.3	1-152	12.0	200	
Benzo (a) anthracene	77.6	7.8	"	100		77.6	33-143	20.6	200	
Chrysene	76.8	2.5	"	100		76.8	17-168	21.8	200	
3,3′-Dichlorobenzidine	101	16	"	100		101	1-262	21.3	200	
2-Chloronaphthalene	70.9	1.9	"	100		70.9	60-118	17.3	200	
Di-n-octyl phthalate	74.1	2.5	"	100		74.1	40-146	17.7	200	
Bis(2-ethylhexyl)phthalate	82.6	2.5	"	100		82.6	8-158	13.7	200	
Benzo (b) fluoranthene	76.5	4.8	"	100		76.5	24-159	21.3	200	
Benzo (k) fluoranthene	74.3	2.5	"	100		74.3	11-162	20.4	200	
Benzo (a) pyrene	77.6	7.8	"	100		77.6	17-163	20.5	200	
Indeno (1,2,3-cd) pyrene	95.2	3.7	"	100		95.2	1-171	2.80	200	
Dibenz (a,h) anthracene	97.8	2.5	"	100		97.8	1-227	3.33	200	
Benzo (g,h,i) perylene	92.1	4.1	"	100		92.1	1-219	1.67	200	
Matrix Spike (1C10015-MS1)	**Source: 1103039-07**			Prepared: 03/10/11 Analyzed: 03/11/11						
Surrogate: 2-Fluorophenol	*37.8*		*ug/l*	*100*		*37.8*	*21-110*			
Surrogate: Phenol-d6	*47.0*		*"*	*100*		*47.0*	*10-110*			
Surrogate: Nitrobenzene-d5	*33.9*		*"*	*50.0*		*67.9*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*36.9*		*"*	*50.0*		*73.8*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*99.8*		*"*	*100*		*99.8*	*10-123*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
Matrix Spike (1C10015-MS1)	**Source: 1103039-07**			Prepared: 03/10/11		Analyzed: 03/11/11				
Surrogate: Terphenyl-d14	*51.6*		*ug/l*	*50.0*		*103*	*33-141*			
Phenol	36.8	1.5	"	100	ND	36.8	5-112			
Bis(2-chloroethyl)ether	55.0	5.7	"	100	ND	55.0	12-158			
2-Chlorophenol	56.8	3.3	"	100	ND	56.8	23-134			
Bis(2-chloroisopropyl)ether	65.5	5.7	"	100	ND	65.5	36-166			
N-Nitrosodi-n-propylamine	79.8	10	"	100	ND	79.8	1-230			
Hexachloroethane	47.6	1.6	"	100	ND	47.6	40-113			
Nitrobenzene	69.1	1.9	"	100	ND	69.1	35-180			
Isophorone	80.2	2.2	"	100	ND	80.2	21-196			
2-Nitrophenol	73.9	3.6	"	100	ND	73.9	29-182			
2,4-Dimethylphenol	63.8	2.7	"	100	ND	63.8	32-119			
Bis(2-chloroethoxy)methane	70.9	5.3	"	100	ND	70.9	33-184			
1,2,4-Trichlorobenzene	55.9	1.9	"	100	ND	55.9	44-142			
Naphthalene	62.3	1.6	"	100	ND	62.3	21-133			
Hexachlorobutadiene	52.8	0.90	"	100	ND	52.8	24-116			
2,4-Dichlorophenol	74.6	2.7	"	100	ND	74.6	39-135			
4-Chloro-3-methylphenol	87.3	3.0	"	100	ND	87.3	22-147			
2,4,6-Trichlorophenol	84.0	2.7	"	100	ND	84.0	37-144			
Dimethyl phthalate	48.5	1.6	"	100	ND	48.5	1-112			
2,6-Dinitrotoluene	93.4	1.9	"	100	ND	93.4	50-158			
Acenaphthylene	81.6	3.5	"	100	ND	81.6	33-145			
Acenaphthene	80.4	1.9	"	100	ND	80.4	47-145			
2,4-Dinitrophenol	90.6	42	"	100	ND	90.6	1-191			
4-Nitrophenol	39.6	2.4	"	100	ND	39.6	1-132			
2,4-Dinitrotoluene	102	5.7	"	100	ND	102	39-139			
Diethyl phthalate	81.8	1.9	"	100	ND	81.8	1-114			
Fluorene	87.1	1.9	"	100	ND	87.1	59-121			
4-Chlorophenyl phenyl ether	87.2	4.2	"	100	ND	87.2	25-158			
4,6-Dinitro-2-methylphenol	95.7	24	"	100	ND	95.7	1-181			
4-Bromophenyl phenyl ether	92.6	1.9	"	100	ND	92.6	53-127			
Hexachlorobenzene	89.2	1.9	"	100	ND	89.2	1-152			
Pentachlorophenol	97.6	3.6	"	100	ND	97.6	14-176			
Phenanthrene	90.7	5.4	"	100	ND	90.7	54-120			
Anthracene	88.9	1.9	"	100	ND	88.9	27-133			
Di-n-butyl phthalate	99.4	2.5	"	100	ND	99.4	1-118			
Fluoranthene	93.9	2.2	"	100	ND	93.9	26-137			

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Batch 1C10015 - EPA 3510C

Matrix Spike (1C10015-MS1) **Source: 1103039-07** Prepared: 03/10/11 Analyzed: 03/11/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Pyrene	101	1.9	ug/l	100	ND	101	52-115			
Butyl benzyl phthalate	106	2.5	"	100	ND	106	1-152			
Benzo (a) anthracene	95.3	7.8	"	100	ND	95.3	33-143			
Chrysene	94.4	2.5	"	100	ND	94.4	17-168			
3,3'-Dichlorobenzidine	99.4	16	"	100	ND	99.4	1-262			
2-Chloronaphthalene	76.8	1.9	"	100	ND	76.8	60-118			
Di-n-octyl phthalate	99.1	2.5	"	100	ND	99.1	4-146			
Bis(2-ethylhexyl)phthalate	107	2.5	"	100	ND	107	8-158			
Benzo (b) fluoranthene	95.6	4.8	"	100	ND	95.6	24-159			
Benzo (k) fluoranthene	92.1	2.5	"	100	ND	92.1	11-162			
Benzo (a) pyrene	95.0	7.8	"	100	ND	95.0	17-163			
Indeno (1,2,3-cd) pyrene	115	3.7	"	100	ND	115	1-171			
Dibenz (a,h) anthracene	115	2.5	"	100	ND	115	1-227			
Benzo (g,h,i) perylene	116	4.1	"	100	ND	116	1-219			

Matrix Spike Dup (1C10015-MSD1) **Source: 1103039-07** Prepared: 03/10/11 Analyzed: 03/12/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2-Fluorophenol	*42.5*		*ug/l*	*100*		*42.5*	*21-110*			
Surrogate: Phenol-d6	*50.8*		*"*	*100*		*50.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.8*		*"*	*50.0*		*73.5*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*39.5*		*"*	*50.0*		*78.9*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*107*		*"*	*100*		*107*	*10-123*			
Surrogate: Terphenyl-d14	*47.1*		*"*	*50.0*		*94.2*	*33-141*			
Phenol	40.1	1.5	"	100	ND	40.1	5-112	8.57	20	
Bis(2-chloroethyl)ether	60.6	5.7	"	100	ND	60.6	12-158	9.55	20	
2-Chlorophenol	62.7	3.3	"	100	ND	62.7	23-134	9.92	20	
Bis(2-chloroisopropyl)ether	72.2	5.7	"	100	ND	72.2	36-166	9.76	20	
N-Nitrosodi-n-propylamine	84.2	10	"	100	ND	84.2	1-230	5.36	20	
Hexachloroethane	55.5	1.6	"	100	ND	55.5	40-113	15.4	20	
Nitrobenzene	75.3	1.9	"	100	ND	75.3	35-180	8.56	20	
Isophorone	83.3	2.2	"	100	ND	83.3	21-196	3.84	20	
2-Nitrophenol	80.2	3.6	"	100	ND	80.2	29-182	8.11	20	
2,4-Dimethylphenol	58.3	2.7	"	100	ND	58.3	32-119	9.04	20	
Bis(2-chloroethoxy)methane	75.9	5.3	"	100	ND	75.9	33-184	6.88	20	
1,2,4-Trichlorobenzene	62.3	1.9	"	100	ND	62.3	44-142	10.8	20	
Naphthalene	68.2	1.6	"	100	ND	68.2	21-133	9.05	20	
Hexachlorobutadiene	60.6	0.90	"	100	ND	60.6	24-116	13.8	20	

California ELAP Certified Methods - Quality Control

San Diego Gas & Electric

Batch 1C10015 - EPA 3510C

Matrix Spike Dup (1C10015-MSD1) **Source: 1103039-07** Prepared: 03/10/11 Analyzed: 03/12/11

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-Dichlorophenol	80.8	2.7	ug/l	100	ND	80.8	39-135	8.02	20	
4-Chloro-3-methylphenol	93.3	3.0	"	100	ND	93.3	22-147	6.57	20	
2,4,6-Trichlorophenol	90.7	2.7	"	100	ND	90.7	37-144	7.69	20	
Dimethyl phthalate	58.8	1.6	"	100	ND	58.8	1-112	19.2	20	
2,6-Dinitrotoluene	97.4	1.9	"	100	ND	97.4	50-158	4.22	20	
Acenaphthylene	85.8	3.5	"	100	ND	85.8	33-145	5.07	20	
Acenaphthene	85.6	1.9	"	100	ND	85.6	47-145	6.23	20	
2,4-Dinitrophenol	102	42	"	100	ND	102	1-191	12.0	20	
4-Nitrophenol	45.1	2.4	"	100	ND	45.1	1-132	13.0	20	
2,4-Dinitrotoluene	109	5.7	"	100	ND	109	39-139	6.68	20	
Diethyl phthalate	88.7	1.9	"	100	ND	88.7	1-114	8.07	20	
Fluorene	93.2	1.9	"	100	ND	93.2	59-121	6.86	20	
4-Chlorophenyl phenyl ether	93.8	4.2	"	100	ND	93.8	25-158	7.24	20	
4,6-Dinitro-2-methylphenol	99.3	24	"	100	ND	99.3	1-181	3.66	20	
4-Bromophenyl phenyl ether	94.8	1.9	"	100	ND	94.8	53-127	2.33	20	
Hexachlorobenzene	89.3	1.9	"	100	ND	89.3	1-152	0.0785	20	
Pentachlorophenol	101	3.6	"	100	ND	101	14-176	3.41	20	
Phenanthrene	93.2	5.4	"	100	ND	93.2	54-120	2.62	20	
Anthracene	91.8	1.9	"	100	ND	91.8	27-133	3.23	20	
Di-n-butyl phthalate	97.5	2.5	"	100	ND	97.5	1-118	1.99	20	
Fluoranthene	93.0	2.2	"	100	ND	93.0	26-137	0.974	20	
Pyrene	93.9	1.9	"	100	ND	93.9	52-115	7.68	20	
Butyl benzyl phthalate	95.9	2.5	"	100	ND	95.9	1-152	10.2	20	
Benzo (a) anthracene	95.2	7.8	"	100	ND	95.2	33-143	0.0945	20	
Chrysene	94.9	2.5	"	100	ND	94.9	17-168	0.486	20	
3,3′-Dichlorobenzidine	106	16	"	100	ND	106	1-262	5.90	20	
2-Chloronaphthalene	83.2	1.9	"	100	ND	83.2	60-118	7.94	20	
Di-n-octyl phthalate	94.0	2.5	"	100	ND	94.0	4-146	5.32	20	
Bis(2-ethylhexyl)phthalate	99.3	2.5	"	100	ND	99.3	8-158	7.69	20	
Benzo (b) fluoranthene	97.1	4.8	"	100	ND	97.1	24-159	1.55	20	
Benzo (k) fluoranthene	88.3	2.5	"	100	ND	88.3	11-162	4.27	20	
Benzo (a) pyrene	95.5	7.8	"	100	ND	95.5	17-163	0.556	20	
Indeno (1,2,3-cd) pyrene	95.0	3.7	"	100	ND	95.0	1-171	19.4	20	
Dibenz (a,h) anthracene	98.6	2.5	"	100	ND	98.6	1-227	15.6	20	
Benzo (g,h,i) perylene	90.6	4.1	"	100	ND	90.6	1-219	24.9	20	A-01a

Reference (1C10015-SRM1) Prepared: 03/10/11 Analyzed: 03/11/11

California ELAP Certified Methods - Quality Control

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
Reference (1C10015-SRM1)				Prepared: 03/10/11		Analyzed: 03/11/11				
Surrogate: 2-Fluorophenol	*42.9*		*ug/l*	*100*		*42.9*	*21-110*			
Surrogate: Phenol-d6	*42.8*		*"*	*100*		*42.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.8*		*"*	*50.0*		*73.6*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*39.6*		*"*	*50.0*		*79.3*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*100*		*"*	*100*		*100*	*10-123*			
Surrogate: Terphenyl-d14	*51.5*		*"*	*50.0*		*103*	*33-141*			
Phenol	34.9	1.5	"	100		34.9	0-200			
Bis(2-chloroethyl)ether	63.9	5.7	"	100		63.9	0-200			
2-Chlorophenol	65.8	3.3	"	100		65.8	0-200			
Benzidine	17.2	10	"	100		17.2	0-200			
Bis(2-chloroisopropyl)ether	72.5	5.7	"	100		72.5	0-200			
N-Nitrosodi-n-propylamine	81.8	10	"	100		81.8	0-200			
Hexachloroethane	57.7	1.6	"	100		57.7	0-200			
Nitrobenzene	75.1	1.9	"	100		75.1	0-200			
Isophorone	81.4	2.2	"	100		81.4	0-200			
2-Nitrophenol	79.3	3.6	"	100		79.3	0-200			
2,4-Dimethylphenol	56.6	2.7	"	100		56.6	0-200			
Bis(2-chloroethoxy)methane	75.0	5.3	"	100		75.0	0-200			
1,2,4-Trichlorobenzene	63.7	1.9	"	100		63.7	0-200			
Naphthalene	69.3	1.6	"	100		69.3	0-200			
Hexachlorobutadiene	62.7	0.90	"	100		62.7	0-200			
2,4-Dichlorophenol	79.0	2.7	"	100		79.0	0-200			
4-Chloro-3-methylphenol	88.9	3.0	"	100		88.9	0-200			
2,4,6-Trichlorophenol	ND	2.7	"	100			0-200			
Dimethyl phthalate	40.5	1.6	"	100		40.5	0-200			
2,6-Dinitrotoluene	91.4	1.9	"	100		91.4	0-200			
Acenaphthylene	83.7	3.5	"	100		83.7	0-200			
Acenaphthene	82.5	1.9	"	100		82.5	0-200			
2,4-Dinitrophenol	92.3	42	"	100		92.3	0-200			
4-Nitrophenol	36.9	2.4	"	100		36.9	0-200			
2,4-Dinitrotoluene	101	5.7	"	100		101	0-200			
Diethyl phthalate	73.5	1.9	"	100		73.5	0-200			
Fluorene	86.7	1.9	"	100		86.7	0-200			
4-Chlorophenyl phenyl ether	89.2	4.2	"	100		89.2	0-200			
4,6-Dinitro-2-methylphenol	96.2	24	"	100		96.2	0-200			
4-Bromophenyl phenyl ether	92.6	1.9	"	100		92.6	0-200			

California ELAP Certified Methods - Quality Control

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C10015 - EPA 3510C										
Reference (1C10015-SRM1)				Prepared: 03/10/11 Analyzed: 03/11/11						
Hexachlorobenzene	88.3	1.9	ug/l	100		88.3	0-200			
Pentachlorophenol	96.6	3.6	"	100		96.6	0-200			
Phenanthrene	89.6	5.4	"	100		89.6	0-200			
Anthracene	89.1	1.9	"	100		89.1	0-200			
Di-n-butyl phthalate	98.1	2.5	"	100		98.1	0-200			
Fluoranthene	95.8	2.2	"	100		95.8	0-200			
Pyrene	98.4	1.9	"	100		98.4	0-200			
Butyl benzyl phthalate	100	2.5	"	100		100	0-200			
Benzo (a) anthracene	93.2	7.8	"	100		93.2	0-200			
Chrysene	93.6	2.5	"	100		93.6	0-200			
3,3'-Dichlorobenzidine	113	16	"	100		113	0-200			
2-Chloronaphthalene	81.9	1.9	"	100		81.9	0-200			
Di-n-octyl phthalate	88.3	2.5	"	100		88.3	0-200			
Bis(2-ethylhexyl)phthalate	98.1	2.5	"	100		98.1	0-200			
Benzo (b) fluoranthene	ND	4.8	"	100			0-200			
Benzo (k) fluoranthene	86.1	2.5	"	100		86.1	0-200			
Benzo (a) pyrene	93.3	7.8	"	100		93.3	0-200			
Indeno (1,2,3-cd) pyrene	107	3.7	"	100		107	0-200			
Dibenz (a,h) anthracene	107	2.5	"	100		107	0-200			
Benzo (g,h,i) perylene	104	4.1	"	100		104	0-200			
Batch 1C11004 - EPA 3015A										
Blank (1C11004-BLK1)				Prepared: 03/11/11 Analyzed: 03/15/11						
Silver	ND	0.50	ug/l							
Chromium	ND	0.50	"							
Nickel	ND	2.5	"							
Cadmium	ND	0.50	"							
Copper	ND	2.5	"							
Lead	ND	2.5	"							
LCS (1C11004-BS1)				Prepared: 03/11/11 Analyzed: 03/15/11						
Copper	988	2.5	ug/l	1000		98.8	80-120			
Lead	899	2.5	"	1000		89.9	80-120			
Cadmium	1040	0.50	"	1000		104	80-120			

California ELAP Certified Methods - Quality Control

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C11004 - EPA 3015A										
LCS (1C11004-BS1)				Prepared: 03/11/11		Analyzed: 03/16/11				
Chromium	907	0.50	ug/l	1000		90.7	80-120			
Nickel	1010	2.5	"	1000		101	80-120			
Silver	533	0.50	"	500		107	80-120			
Matrix Spike (1C11004-MS1)	**Source: 1103039-02**			Prepared: 03/11/11		Analyzed: 03/15/11				
Silver	502	0.50	ug/l	500	ND	100	75-125			
Nickel	1000	2.5	"	1000	ND	100	75-125			
Chromium	1010	0.50	"	1000	1.90	101	75-125			
Lead	1570	2.5	"	1000	ND	157	75-125			QM-12
Copper	1070	2.5	"	1000	ND	107	75-125			
Cadmium	1020	0.50	"	1000	ND	102	75-125			
Matrix Spike Dup (1C11004-MSD1)	**Source: 1103039-02**			Prepared: 03/11/11		Analyzed: 03/15/11				
Silver	594	0.50	ug/l	500	ND	119	75-125	16.8	20	
Nickel	1010	2.5	"	1000	ND	101	75-125	1.09	20	
Lead	1470	2.5	"	1000	ND	147	75-125	6.61	20	QM-11, QM-12
Copper	1190	2.5	"	1000	ND	119	75-125	10.5	20	
Chromium	1070	0.50	"	1000	1.90	107	75-125	5.49	20	
Cadmium	1050	0.50	"	1000	ND	105	75-125	3.58	20	
Batch 1C14004 - EPA 7470A										
Blank (1C14004-BLK1)				Prepared: 03/14/11		Analyzed: 03/16/11				
Mercury	ND	0.10	ug/l							
LCS (1C14004-BS1)				Prepared: 03/14/11		Analyzed: 03/16/11				
Mercury	4.95	0.10	ug/l	5.00		99.0	85-115			
Matrix Spike (1C14004-MS1)	**Source: 1103039-02**			Prepared: 03/14/11		Analyzed: 03/16/11				
Mercury	4.31	0.10	ug/l	5.00	ND	86.3	70-130			
Matrix Spike Dup (1C14004-MSD1)	**Source: 1103039-02**			Prepared: 03/14/11		Analyzed: 03/16/11				

California ELAP Certified Methods - Quality Control

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1C14004 - EPA 7470A										
Matrix Spike Dup (1C14004-MSD1)	**Source: 1103039-02**			Prepared: 03/14/11 Analyzed: 03/16/11						
Mercury	4.99	0.10	ug/l	5.00	ND	99.8	70-130	14.5	20	
Batch 1C16009 - No Prep. Wet Chem										
Blank (1C16009-BLK1)				Prepared & Analyzed: 03/16/11						
Chemical Oxygen Demand	ND	10	mg/l							
LCS (1C16009-BS1)				Prepared & Analyzed: 03/16/11						
Chemical Oxygen Demand	722	10	mg/l	813		88.8	80-120			
Matrix Spike (1C16009-MS1)	**Source: 1103039-02**			Prepared & Analyzed: 03/16/11						
Chemical Oxygen Demand	2600	10	mg/l	813	1700	111	75-125			
Matrix Spike Dup (1C16009-MSD1)	**Source: 1103039-02**			Prepared & Analyzed: 03/16/11						
Chemical Oxygen Demand	2610	10	mg/l	813	1700	111	75-125	0.192	20	

Notes and Definitions

QM-12	The MS and/or MSD percent recoveries indicate bias due to the sample matrix. Method criteria were satisfied.
QM-11	The RPD was above the acceptance limit for the sample/sample duplicate or the MS/MSD.
QM-02	The percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
A-01a	This compound is the last semivolatile to elute from the column - It is in spec in both the MS and MSD samples, but the %RD between the two falls outside specs. Not detected in any field samples in this work order - jrc 3-14-11
A-01	The level of analyte found in the method blank is not significant with respect to the level found in the client samples.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ENCINA POWER STATION LAB
pH METER CALIBRATION AND ANALYSIS
Method SM 4500-H+B

PROJECT: RECERTIFICATION SAMPLES 2011 - SET 1
METER: **HACH SensION 2**

START DATE 3-8-11 START TIME 0545
pH STANDARDS: **Fisher Scientific Standards**

pH 7.0 exp. Date	Dec-11	Lot #	96893	Temp F- 7 Buffer	69.6
mv @ 7.0 pH	4.7				
pH 10.0 exp.date	Nov-11	Lot #	96382	Temp F-10 Buffer	69.8
pH 4.0 exp. date	Feb-12	Lot #	100486	Temp F-4 Buffer	69.8

Slope = mv 58.4 99.0 % slope= mv reading / 59mv

pH Calibration Checks: **HACH Standards**

DI Water pH	5.75	Temp.F	69.9				
10 pH check	10.04	Temp.F	69.0	Exp. Date	Oct-12	Lot#	A0292
7 pH check	7.02	Temp.F	69.6	Exp. Date	Aug-12	Lot#	A0279
4 pH check	3.99	Temp.F	69.0	Exp. Date	Dec-11	Lot#	A0048

SAMPLE	Time	pH	Temp. F
CW INLET	0645	8.09	57.5
CW DISCHARGE	0708	8.04	59.7

STANDARDS CHECK AFTER ANALYSIS
Fisher Scientific Standards

pH Buffer	Time	pH	Temp. F
DI Water	0735	5.79	69.9
pH 4.0	0738	4.00	69.6
pH 7.0	0741	7.00	69.8
pH 10.0	0745	10.02	69.8

COMMENTS

Analyzed by Pedro Lopez
Date 3-8-11
LAB Number 2547

ENCINA POWER STATION LAB
pH METER CALIBRATION AND ANALYSIS
Method SM 4500-H+B

PROJECT: RECERTIFICATION SAMPLES 2011 - SET 2
METER: **HACH SensION 2**

START DATE 3-8-11 START TIME 1315
pH STANDARDS: **Fisher Scientific Standards**
pH 7.0 exp. Date Dec-11 Lot # 96893 Temp F- 7 Buffer 70.8
mv @ 7.0 pH 4.8
pH 10.0 exp.date Nov-11 Lot # 96382 Temp F-10 Buffer 71.2
pH 4.0 exp. date Feb-12 Lot # 100486 Temp F-4 Buffer 70.8
Slope = mv 58.5 99.2 % slope= mv reading / 59mv

DI Water pH ________ Temp.F ________

SAMPLE	Time	pH	Temp. F
CW INLET	1355	8.06	57.9
CW DISCHARGE	1407	8.09	59.5

STANDARDS CHECK AFTER ANALYSIS
Fisher Scientific Standards

pH Buffer	Time	pH	Temp. F
DI Water	1430	5.81	70.7
pH 4.0	1432	3.98	71.0
pH 7.0	1436	7.00	71.4
pH 10.0	1439	10.00	71.9

COMMENTS

Analyzed by Pedro lopez
Date 3-8-11
Lab Number 2547

ENCINA POWER STATION LAB
pH METER CALIBRATION AND ANALYSIS
Method SM 4500-H+B

PROJECT: RECERTIFICATION SAMPLES 2011 - SET 3
METER: **HACH SensION 2**

START DATE 3-8-11 START TIME 1740
pH STANDARDS: **Fisher Scientific Standards**
pH 7.0 exp. Date Dec-11 Lot # 96893 Temp F- 7 Buffer 73.5
mv @ 7.0 pH 4.5
pH 10.0 exp.date Nov-11 Lot # 96382 Temp F-10 Buffer 73.4
pH 4.0 exp. date Feb-12 Lot # 100486 Temp F-4 Buffer 73.4
Slope = mv 58.5 99.2 % slope= mv reading / 59mv

DI Water pH 5.76 Temp.F 70.8

SAMPLE	Time	pH	Temp. F
CW INLET	1850	8.09	58.1
CW DISCHARGE	1912	8.01	59.3

STANDARDS CHECK AFTER ANALYSIS
Fisher Scientific Standards

pH Buffer	Time	pH	Temp. F
DI Water	1935	5.74	70.5
pH 4.0	1937	3.99	69.4
pH 7.0	1940	7.01	69.8
pH 10.0	1943	10.02	69.8

COMMENTS

Analyzed by Pedro lopez
Date 3-8-11
Lab Number 2547

ENCINA POWER STATION LAB
pH METER CALIBRATION AND ANALYSIS
Method SM 4500-H+B

PROJECT: RECERTIFICATION SAMPLES 2011 - SET 4
METER: **HACH SensION 2**

START DATE 3-9-11 START TIME 0015

pH STANDARDS: **Fisher Scientific Standards**

pH 7.0 exp. Date	Dec-11	Lot #	96893	Temp F- 7 Buffer	68.9
mv @ 7.0 pH	5.4				
pH 10.0 exp.date	Nov-11	Lot #	96382	Temp F-10 Buffer	68.7
pH 4.0 exp. date	Feb-12	Lot #	100486	Temp F-4 Buffer	68.7

Slope = mv 58.6 99.3 % slope= mv reading / 59mv

pH Calibration Checks: **HACH Standards**

DI Water pH	5.74	Temp.F	69.2				
10 pH check	10.03	Temp.F	67.2	Exp. Date	Oct-12	Lot#	A0292
7 pH check	7.00	Temp.F	67.4	Exp. Date	Aug-12	Lot#	A0279
4 pH check	4.00	Temp.F	66.7	Exp. Date	Dec-11	Lot#	A0048

SAMPLE	Time	pH	Temp. F
CW INLET	0100	8.04	56.3
CW DISCHARGE	0115	8.00	57.7

STANDARDS CHECK AFTER ANALYSIS
Fisher Scientific Standards

pH Buffer	Time	pH	Temp. F
DI Water	0140	5.77	68.9
pH 4.0	0143	3.99	66.0
pH 7.0	0146	7.00	66.3
pH 10.0	0149	10.01	66.9

COMMENTS

Analyzed by Pedro Lopez
Date 3-9-11
Lab Number 2547

ENCINA POWER STATION LAB
POCKET COLORIMETER II Cl_2
CALIBRATION LOG FORMS
Hach DPD Method SM 4500Cl G

PROJECT: **NPDES - RECERTIFICATION SAMPLES 2011 SET 1**

DATE 03/08/2011 TIME 0530

Checking the calibration of the spectrophotometer before analysis.			
HACH DPD Chlorine Std. Kit	Kit lot # A0148 cat # 26353-00	Exp date	May-11

	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23 mg/l
3rd	0.95+/-.10mg/l	0.94 mg/l
4th	1.65+/-.14mg/l	1.63 mg/l

HACH STD SOLUTIONS

27.6 +/- 0.43mg/l Cat# 26300 - 20 Lot # A0112 Exp. Date April 2011

Calculation for making Stds and spikes

$$\text{Volume of Std} = \frac{\text{(Sample vlolume)(Desire Std Conc)}}{\text{Original Std Conc.}}$$

Known STD solution used:

Volume of Std	Total volume	Calculated mg/l	Analyzer reading mg/l
0.181 mls	100 mls	0.05 mg/l	0.05 mg/l
0.725 mls	100 mls	0.20 mg/l	0.19 mg/l
/	/	/	/

ENCINA POWER STATION NPDES RECERTIFICATION 2011 SET 1

Sample Point	Time	Results	Comments
INTAKE - 1	0645	0.02 mg/l	
DISCHARGE - 1	0708	0.02 mg/l	

Check after analysis with HACH DPD CHLORINE STD KIT

	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23 mg/l
3rd	0.95+/-.10mg/l	0.94 mg/l
4th	1.65+/-.14mg/l	1.24 mg/l

Calibration Check Performed by Pedro Lopez

Date 3-8-11

Lab Number 2547

ENCINA POWER STATION LAB
POCKET COLORIMETER II Cl_2
CALIBRATION LOG FORMS
Hach DPD Method SM 4500Cl G

PROJECT: **NPDES - RECERTIFICATION SAMPLES 2011 SET 2**
DATE 3-8-11 TIME 1115

Checking the calibration of the spectrophotometer before analysis.			
HACH DPD Chlorine Std. Kit	Kit lot # A0148 cat # 26353-00	Exp date	May-11
	Standards	Hach Pocket Calorimeter	
1st	Zero	0	
2nd	0.24+/-0.09mg/l	0.25 mg/l	
3rd	0.95+/-.10mg/l	0.95 mg/l	
4th	1.65+/-.14mg/l	1.63 mg/l	
ENCINA POWER STATION NPDES RECERTIFICATION 2011 SET 2			
Sample Point	Time	Results	Comments
INTAKE	1355	0.02 mg/l	
DISCHARGE	1407	0.01 mg/l	
Check after analysis with HACH DPD CHLORINE STD KIT			
	Standards	Hach Pocket Calorimeter	
1st	Zero	0	
2nd	0.24+/-0.09mg/l	0.23	
3rd	0.95+/-.10mg/l	0.95	
4th	1.65+/-.14mg/l	1.63	

Calibration Check Performed by Pedro Lopez
Date 3-8-11
Lab Number 2547

ENCINA POWER STATION LAB
POCKET COLORIMETER II Cl_2
CALIBRATION LOG FORMS
Hach DPD Method SM 4500Cl G

PROJECT: **NPDES - RECERTIFICATION SAMPLES 2011 SET 3**
DATE 3-8-11 TIME 1740

Checking the calibration of the spectrophotometer before analysis.			
HACH DPD Chlorine Std. Kit	Kit lot # A0148 cat # 26353-00	Exp date	May-11

	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23mg/l
3rd	0.95+/-.10mg/l	0.94mg/l
4th	1.65+/-.14mg/l	1.62 mg/l

ENCINA POWER STATION NPDES RECERTIFICATION 2011 SET 3			
Sample Point	Time	Results	Comments
INTAKE	1850	0.01mg/l	
DISCHARGE	1912	0.03mg/l	

Check after analysis with HACH DPD CHLORINE STD KIT		
	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23mg/l
3rd	0.95+/-.10mg/l	0.95 mg/l
4th	1.65+/-.14mg/l	1.63 mg/l

Calibration Check Performed by Pedro Lopez
Date 3-8-11
Lab Number 2547

ENCINA POWER STATION LAB
POCKET COLORIMETER II Cl_2
CALIBRATION LOG FORMS
Hach DPD Method SM 4500Cl G

PROJECT: **NPDES - RECERTIFICATION SAMPLES 2011 SET 4**
DATE 3-9-11 TIME 0015

Checking the calibration of the spectrophotometer before analysis.

HACH DPD Chlorine Std. Kit	Kit lot # A0148 cat # 26353-00	Exp date	May-11

	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23 mg/l
3rd	0.95+/-.10mg/l	0.94 mg/l
4th	1.65+/-.14mg/l	1.64 mg/l

HACH STD SOLUTIONS

27.6 +/- 0.43mg/l Cat# 26300 - 20 Lot # A0112 Exp. Date April 2011

Calculation for making Stds and spikes

$$\text{Volume of Std} = \frac{\text{(Sample vlolume)(Desire Std Conc)}}{\text{Original Std Conc.}}$$

Known STD solution used:

Volume of Std	Total volume	Calculated mg/l	Analyzer reading mg/l
0.181mls	100mls	0.05mg/l	0.05mg/l
0.725mls	100 mls	0.20mg/l	0.20 mg/l
-	-	-	-

ENCINA POWER STATION NPDES RECERTIFICATION 2011 SET 41

Sample Point	Time	Results	Comments
INTAKE	0100	0.01mg/l	
DISCHARGE	0115	0.01mg/l	

Check after analysis with HACH DPD CHLORINE STD KIT

	Standards	Hach Pocket Calorimeter
1st	Zero	0
2nd	0.24+/-0.09mg/l	0.23 mg/l
3rd	0.95+/-.10mg/l	0.94 mg/l
4th	1.65+/-.14mg/l	1.63 mg/l

Calibration Check Performed by Pedro Lopez
Date 3-9-11
Lab Number 2547

SDGE
A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1 of 1

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Due Date: 5-day TAT

PRIORITY

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1		3-8-11	0645	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Intake - Grab 2		3-8-11	1355	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Intake - Grab 3		3-8-11	1850	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Intake - Grab 4		3-9-11	0100	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Discharge - Grab 1		3-8-11	0708	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Discharge - Grab 2		3-8-11	1407	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Discharge - Grab 3		3-8-11	1912	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G
Discharge - Grab 4		3-9-11	0115	Water	Field Test	n/a	pH Value SM 4500-H$^+$ B; Chlorine, Residual 4500-CL G

Comments:

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100		3/9/11	1100

Releasing	Date	Time	Accepting	Date	Time

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Page 1 of 5

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **82 (total)**
Due Date: 5-day TAT

PRIORITY

Sampled by: Pedro Lopez (signature): Pedro Lopez

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - 24-hour composite		3-9-11	0800	Water	1-gal Cubi	4°C	Solids, TSS SM 2540 D
Intake - 24-hour composite		↓	↓	Water	1-L P	4°C	Bromide, Fluoride, Nitrate as N, Nitrite as N, Sulfate - EPA 300.0
Intake - 24-hour composite		↓	↓	Water	1-L P	4°C; pH<2; HNO_3	Metals - see below
Intake - 24-hour composite		↓	↓	Water	250 mL P	4°C; pH<2; H_2SO4	Phosphorus, Total (as P) - EPA 200.7
Intake - 24-hour composite		↓	↓	Water	250 mL P	4°C; pH<2; H_2SO4	COD-5220 D
Discharge - 24-hour composite		3-9-11	0820	Water	1-gal Cubi	4°C	Solids, TSS SM 2540 D
Discharge - 24-hour composite		↓	↓	Water	1-L P	4°C	Bromide, Fluoride, Nitrate as N, Nitrite as N, Sulfate - EPA 300.0
Discharge - 24-hour composite		↓	↓	Water	1-L P	4°C; pH<2; HNO_3	Metals - see below
Discharge - 24-hour composite		↓	↓	Water	250 mL P	4°C; pH<2; H_2SO4	Phosphorus, Total (as P) - EPA 200.7
Discharge - 24-hour composite		↓	↓	Water	250 mL P	4°C; pH<2; H_2SO4	COD-5220 D

Comments:
Hg by 245.1
ICP = Al, Sb, Ba, Be, B, Co, Fe, Mg, Mn, Mo, Se, Tl, Sn, Ti, Zn
GFAA = Ag, Cd, Cr, Cu, Ni, Pb
ICP/MS = As

Releasing	Date	Time	Accepting	Date	Time
Pedro Lopez	3/9/11	1100		3/9/11	1100
Releasing	Date	Time	Accepting	Date	Time

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Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **80 (total)**
Due Date: 5-day TAT

PRIORITY

Sampled by: Pedro Lopez (signature): Pedro Lopez

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1		3-8-11	0645	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Intake - Grab 2		3-8-11	1355	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Intake - Grab 3		3-8-11	1850	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Intake - Grab 4		3-9-11	0100	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Intake - Grab 1		3-8-11	0645	Water	2 x 1-L AG	4°C	Pescticides/PCBs - EPA 608
Intake - Grab 2		3-8-11	1355	Water	2 x 1-L AG	4°C	Pescticides/PCBs - EPA 608
Intake - Grab 3		3-8-11	1850	Water	2 x 1-L AG	4°C	Pescticides/PCBs - EPA 608
Intake - Grab 4		3-9-11	0100	Water	2 x 1-L AG	4°C	Pescticides/PCBs - EPA 608

Comments:
Hg by 245.1
ICP = Al, Sb, Ba, Be, B, Co, Fe, Mg, Mn, Mo, Se, Tl, Sn, Ti, Zn
GFAA = Ag, Cd, Cr, Cu, Ni, Pb
ICP/MS = As

Releasing	Date	Time	Accepting	Date	Time
Pedro Lopez	3/9/11	1100		3/9/11	1100

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Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **80 (total)**
Due Date: 5-day TAT

PRIORITY

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1		3-8-11	0645	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Intake - Grab 2		3-8-11	1355	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Intake - Grab 3		3-8-11	1850	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Intake - Grab 4		3-9-11	0100	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Intake - Grab 1		3-8-11	0645	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Intake - Grab 2		3-8-11	1355	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Intake - Grab 3		3-8-11	1850	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Intake - Grab 4		3-9-11	0100	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625

Comments:
Hg by 245.1
ICP = Al, Sb, Ba, Be, B, Co, Fe, Mg, Mn, Mo, Se, Tl, Sn, Ti, Zn
GFAA = Ag, Cd, Cr, Cu, Ni, Pb
ICP/MS = As

Releasing	Date	Time	Accepting	Date	Time
	3/09/11	1100		3/9/11	1100
Releasing	Date	Time	Accepting	Date	Time

S:\LAB\COCFORMS\ENPS 2011 Permit Renewal COC.xls SDGE-Intake-2

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Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **80 (total)**
Due Date: 5-day TAT

PRIORITY

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Discharge - Grab 1		3-8-11	0708	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Discharge - Grab 2		3-8-11	1407	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Discharge - Grab 3		3-8-11	1912	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Discharge - Grab 4		3-9-11	0115	Water	2 x 1-L AG	4°C; pH<2; H_2SO4	HEM - EPA 1664A
Discharge - Grab 1		3-8-11	0708	Water	2 x 1-L AG	4°C	Pesticides/PCBs - EPA 608
Discharge - Grab 2		3-8-11	1407	Water	2 x 1-L AG	4°C	Pesticides/PCBs - EPA 608
Discharge - Grab 3		3-8-11	1912	Water	2 x 1-L AG	4°C	Pesticides/PCBs - EPA 608
Discharge - Grab 4		3-9-11	0115	Water	2 x 1-L AG	4°C	Pesticides/PCBs - EPA 608

Comments:
Hg by 245.1
ICP = Al, Sb, Ba, Be, B, Co, Fe, Mg, Mn, Mo, Se, Tl, Sn, Ti, Zn
GFAA = Ag, Cd, Cr, Cu, Ni, Pb
ICP/MS = As

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100		3/9/11	1100

Releasing	Date	Time	Accepting	Date	Time

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Chain of Custody Form

Environmental Analysis Laboratory
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Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **80 (total)**
Due Date: 5-day TAT **PRIORITY**

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Discharge - Grab 1		3-8-11	0708	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Discharge - Grab 2		3-8-11	1407	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Discharge - Grab 3		3-8-11	1912	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Discharge - Grab 4		3-9-11	0115	Water	3 x VOA	4°C; HCl	VOCs - EPA 8260B
Discharge - Grab 1		3-8-11	0708	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Discharge - Grab 2		3-8-11	1407	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Discharge - Grab 3		3-8-11	1912	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625
Discharge - Grab 4		3-9-11	0115	Water	2 x 1-L AG	4°C	Semi VOCs - EPA 625

Comments:
Hg by 245.1
ICP = Al, Sb, Ba, Be, B, Co, Fe, Mg, Mn, Mo, Se, Tl, Sn, Ti, Zn
GFAA = Ag, Cd, Cr, Cu, Ni, Pb
ICP/MS = As

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100		3/9/11	1100

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: San Diego Gas & Electric
6555 Nancy Ridge Drive
San Diego, CA 92121
Attention: Albert Menegus

Project: Tributyl Tin

Sampled: 03/09/11
Received: 03/10/11
Issued: 03/15/11 16:33

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IUC1363-01	Intake 24 hour composite	Water
IUC1363-02	Discharge 24 hour composite	Water

Reviewed By:

TestAmerica Irvine

Steven Garcia For Debby Wilson
Project Manager

San Diego Gas & Electric
6555 Nancy Ridge Drive
San Diego, CA 92121
Attention: Albert Menegus

Project ID: Tributyl Tin

Report Number: IUC1363

Sampled: 03/09/11
Received: 03/10/11

Organotins, PSEP (GC/MS)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IUC1363-01 (Intake 24 hour composite - Water)								
Reporting Units: ug/L								
Tributyltin	Organotins	82213	0.0020	ND	1	3/14/2011	3/14/2011	
Surrogate: Tripentyltin (20-155%)				*99 %*				
Sample ID: IUC1363-02 (Discharge 24 hour composite - Water)								
Reporting Units: ug/L								
Tributyltin	Organotins	82213	0.0019	ND	1	3/14/2011	3/14/2011	
Surrogate: Tripentyltin (20-155%)				*88 %*				

TestAmerica Irvine

Steven Garcia For Debby Wilson
Project Manager

San Diego Gas & Electric
6555 Nancy Ridge Drive
San Diego, CA 92121
Attention: Albert Menegus

Project ID: Tributyl Tin

Report Number: IUC1363

Sampled: 03/09/11
Received: 03/10/11

METHOD BLANK/QC DATA

Organotins, PSEP (GC/MS)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 82213 Extracted: 03/11/11										
Blank Analyzed: 03/14/2011 (580-82213-3)					**Source:**					
Tributyltin	ND	0.0020	ug/L				-			
Surrogate: Tripentyltin	*0.168*		*ug/L*	*0.200*		*84*	*20-155*			
LCS Analyzed: 03/14/2011 (580-82213-4)					**Source:**					
Tributyltin	0.185	0.0020	ug/L	0.178		104	37-149			
Surrogate: Tripentyltin	*0.206*		*ug/L*	*0.200*		*103*	*20-155*			
LCS Dup Analyzed: 03/14/2011 (580-82213-5)					**Source:**					
Tributyltin	0.171	0.0020	ug/L	0.178		96	37-149	8	29	
Surrogate: Tripentyltin	*0.164*		*ug/L*	*0.200*		*82*	*20-155*			

TestAmerica Irvine

Steven Garcia For Debby Wilson
Project Manager

San Diego Gas & Electric
6555 Nancy Ridge Drive
San Diego, CA 92121
Attention: Albert Menegus

Project ID: Tributyl Tin

Report Number: IUC1363

Sampled: 03/09/11
Received: 03/10/11

DATA QUALIFIERS AND DEFINITIONS

ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica Irvine

Steven Garcia For Debby Wilson
Project Manager

San Diego Gas & Electric
6555 Nancy Ridge Drive
San Diego, CA 92121
Attention: Albert Menegus

Project ID: Tributyl Tin

Report Number: IUC1363

Sampled: 03/09/11
Received: 03/10/11

Certification Summary

Subcontracted Laboratories

TestAmerica Tacoma

5755 8th Street East - Tacoma, WA 98424

Method Performed: Organotins
Samples: IUC1363-01, IUC1363-02

TestAmerica Irvine

Steven Garcia For Debby Wilson
Project Manager

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Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1 of 1

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **4 (total)**
Due Date: 5-day TAT

IUC1363

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - 24-hour composite		3-9-11	0800	Water	2 x 1-L AG	4°C	Organotins, PSEP (GC/MS)
Discharge - 24-hour composite		3-9-11	0820	Water	2 x 1-L AG	4°C	Organotins, PSEP (GC/MS)
							0.0 3/11/11 9:45

Comments:
Include Quality Control data with report

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100 PL		3/9/11	1100
Releasing	Date	Time	Accepting	Date	Time
	3/10/11	1235		3-10-11	1235

S:\LAB\COCFORMS\ENPS 2011 Permit Renewal COC_TestAmerica

3-10-11 1645

Rec'd by: VuBanh 3/10/11 2A 2° 16:45 10 RS01

Motile Laboratory Services
537 Vine St.
Oceanside, CA 92054

ELAP Certification # 2720

Sample Site:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Client Source:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Report To:	Albert Menegus Email ASAP
ATTN:	Albert Menegus
Comments:	Email Results ASAP
Analysis to be performed:	Fecal Coliform MPN 9221C

		Date:	Time:
Sampled:	Pedro Lopez	3/8/11	See below
Relinquished by:	Pedro Lopez	3/8/11	1018
Received:	Lori Motil	3/8/11	1018
Tested:	Lori Motil	3/8/11	1030

Locations:	Sample Type	Sample#	Sampling Time:	Fecal Coliform MPN/100 mL
Intake-Grab 1	Water	11-0057	0645	<2
Discharge-Grab 1	Water	11-0058	0708	<2

Test Performed By:	Lori D. Motil	Thank you,
Test Results By:	Lori D. Motil	Lori D. Motil

Lori Motil
Laboratory Director,RM, CLSp(M)

Final 3/10/11

WW11-057-058

SDG&E
A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1

Lab WO No.

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **8 (total)**
Due Date: 5-day TAT

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1		3-8-11	0645	Water	plastic	n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 2				Water		n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 3				Water		n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 4				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 1		3-8-11	0708	Water	plastic	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 2				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 3				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 4				Water		n/a	Fecal Coliform by EPA 9221 C

Comments:

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/8/11	1018		3/8/11	1018
Releasing	**Date**	**Time**	**Accepting**	**Date**	**Time**

S:\LAB\COCFORMS\ENPS 2011 Permit Renewal COC.xls Motile

Motile Laboratory Services
537 Vine St.
Oceanside, CA 92054

ELAP Certification # 2720

Sample Site:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Client Source:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Report To:	Albert Menegus Email ASAP
ATTN:	Albert Menegus
Comments:	Email Results ASAP
Analysis to be performed:	Fecal Coliform MPN 9221C

		Date:	Time:
Sampled:	Pedro Lopez	3/8/11	See below
Relinquished by:	Pedro Lopez	3/8/11	1521
Received:	Lori Motil	3/8/11	1521
Tested:	Lori Motil	3/8/11	1530

Locations:	*Sample Type*	*Sample#*	Sampling Time:	Fecal Coliform MPN/100 mL
Intake-Grab 2	Water	11-0059	1145	<2
Discharge-Grab 2	Water	11-0060	1152	<2
Intake-Grab 3	Water	11-0061	1445	<2
Discharge-Grab 3	Water	11-0062	1453	<2

Test Performed By: Lori D. Motil
Test Results By: Lori D. Motil

Thank you,
Lori D. Motil

Lori Motil
Laboratory Director,RM, CLSp(M)

Final 3/11/11

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A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1 of 1

Lab WO No.

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers:
Due Date: 5-day TAT

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1		/	/	Water	/	n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 2		3-8-11	1145	Water	Plastic	n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 3		3-8-11	1445	Water	plastic	n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 4		/	/	Water	/	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 1		/	/	Water	/	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 2		3-8-11	1152	Water	Plastic	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 3		3-8-11	1455	Water	Plastic	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 4		/	/	Water	/	n/a	Fecal Coliform by EPA 9221 C

Comments:

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/8/11	1521		3/8/11	1521
Releasing	Date	Time	Accepting	Date	Time

S:\LAF 'FORMS\ENPS 2011 Permit Renewal COC.xls Motile

Motile Laboratory Services
537 Vine St.
Oceanside, CA 92054

ELAP Certification # 2720

Sample Site:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Client Source:	Encina Power Plant 4600 Carlsbad Blvd. Carlsbad, CA 92008
Report To:	Albert Menegus Email ASAP
ATTN:	Albert Menegus
Comments:	Email Results ASAP
Analysis to be performed:	Fecal Coliform MPN 9221C

		Date:	Time:
Sampled:	Pedro Lopez	3/9/11	See below
Relinquished by:	Pedro Lopez	3/9/11	0930
Received:	Lori Motil	3/9/11	0930
Tested:	Lori Motil	3/9/11	0940

Locations:	Sample Type	Sample#	Sampling Time:	Fecal Coliform MPN/100 mL
Intake-Grab 4	Water	11-0063	0450	<2
Discharge-Grab 4	Water	11-0064	0455	<2

Test Performed By:	Lori D. Motil	Thank you,
Test Results By:	Lori D. Motil	Lori D. Motil

Lori Motil
Laboratory Director,RM, CLSp(M)

Final 3/11/11

WW11-063-064

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Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1 of 1

Lab WO No. 11-03-039

Work ID: **Encina Permit Recertification**
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers:
Due Date: 5-day TAT

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - Grab 1				Water		n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 2				Water		n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 3				Water		n/a	Fecal Coliform by EPA 9221 C
Intake - Grab 4		3-9-11	0450	Water	plastic	n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 1				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 2				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 3				Water		n/a	Fecal Coliform by EPA 9221 C
Discharge - Grab 4		3-9-11	0455	Water	Plastic	n/a	Fecal Coliform by EPA 9221 C

Comments:

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3-9-11	0930		3/9/11	930
Releasing	Date	Time	Accepting	Date	Time

Calscience
Environmental
Laboratories, Inc.

March 17, 2011

Albert Menegus
San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Subject: **Calscience Work Order No.: 11-03-0695**
Client Reference: Encina Permit Recertification

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/9/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Ranjit K. K. Clarke

Calscience Environmental
Laboratories, Inc.
Ranjit Clarke
Project Manager

Analytical Report

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: 03/09/11
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Intake-24-hour Composite	**11-03-0695-1**	**03/09/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Total Kjeldahl Nitrogen	0.70	0.50	1		mg/L	03/14/11	03/14/11	SM 4500 N Org B
Sulfide, Total	ND	0.050	1		mg/L	03/10/11	03/10/11	SM 4500 S2 - D
Cyanide, Total	ND	0.10	1		mg/L	03/10/11	03/10/11	SM 4500-CN E
Ammonia (as N)	0.11	0.10	1		mg/L	03/15/11	03/15/11	SM 4500-NH3 B/C
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	03/17/11	SM 5310 D

Intake-Grab (6:45)	**11-03-0695-2**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	0.27	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Intake-Grab (13:55)	**11-03-0695-3**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Intake-Grab (18:50)	**11-03-0695-4**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Intake-Grab (01:00)	**11-03-0695-5**	**03/09/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: 03/09/11
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Discharge-24-hour Composite	**11-03-0695-6**	**03/09/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Total Kjeldahl Nitrogen	0.70	0.50	1		mg/L	03/14/11	03/14/11	SM 4500 N Org B
Sulfide, Total	ND	0.050	1		mg/L	03/10/11	03/10/11	SM 4500 S2 - D
Cyanide, Total	ND	0.10	1		mg/L	03/10/11	03/10/11	SM 4500-CN E
Ammonia (as N)	0.11	0.10	1		mg/L	03/15/11	03/15/11	SM 4500-NH3 B/C
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	03/17/11	SM 5310 D

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Discharge-Grab (07:08)	**11-03-0695-7**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	0.32	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Discharge-Grab (14:07)	**11-03-0695-8**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	0.11	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Discharge-Grab (19:12)	**11-03-0695-9**	**03/08/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	0.33	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Discharge-Grab (01:15)	**11-03-0695-10**	**03/09/11**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	0.70	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1

Calscience Environmental Laboratories, Inc.

Analytical Report

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: 03/09/11
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	03/16/11	03/16/11	EPA 420.1
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	03/14/11	03/14/11	SM 4500 N Org B
Sulfide, Total	ND	0.050	1		mg/L	03/10/11	03/10/11	SM 4500 S2 - D
Cyanide, Total	ND	0.020	1		mg/L	03/10/11	03/10/11	SM 4500-CN E
Ammonia (as N)	ND	0.10	1		mg/L	03/15/11	03/15/11	SM 4500-NH3 B/C
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	03/17/11	SM 5310 D

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report

San Diego Gas & Electric		Date Sampled:	03/09/11
6555 Nancy Ridge Road, Suite 300		Date Received:	03/09/11
San Diego, CA 92121-3221		Date Analyzed:	03/14-15/11
		Work Order No.:	11-03-0695
		Method:	SM 4500 N Org B - SM 4500-NH3 B/C
Project: Encina Permit Recertification			Page 1 of 1

All concentrations are reported in mg/L (ppm). Total Organic Nitrogen (TON) is the difference between Total Kjeldahl Nitrogen - Ammonia (as N).

Sample Number	Total Organic Nitrogen Concentration	RL	Qual
Intake-24-hour Composite	0.59	0.50	
Discharge-24-hour Composite	0.59	0.50	
Method Blank	ND	0.50	

RL - Reporting Limit , Qual - Qualifiers *

Quality Control - Spike/Spike Duplicate

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: N/A
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	SM 5310 D	11-03-0828-5	03/17/11	N/A	95	95	75-125	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: N/A
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Matrix: Aqueous or Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	SM 4500 N Org B	11-03-0585-1	03/14/11	0.70	0.70	0	0-25	
Sulfide, Total	SM 4500 S2 - D	Discharge-24-hour Composite	03/10/11	ND	ND	NA	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Quality Control - LCS/LCS Duplicate

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: N/A
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Cyanide, Total	SM 4500-CN E	099-05-061-3,043	03/10/11	03/10/11	82	80	80-120	2	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,343	03/16/11	03/16/11	96	94	80-120	2	0-20	
Ammonia (as N)	SM 4500-NH3 B	099-12-814-954	03/15/11	03/15/11	100	101	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Quality Control - Laboratory Control Sample

San Diego Gas & Electric
6555 Nancy Ridge Road, Suite 300
San Diego, CA 92121-3221

Date Received: N/A
Work Order No: 11-03-0695

Project: Encina Permit Recertification

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Carbon, Total Organic	SM 5310 D	099-05-097-4,197	03/17/11	N/A	5.0	4.6	92	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Glossary of Terms and Qualifiers

Work Order Number: 11-03-0695

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

SDG&E
A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 1 of 2

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **18 (total)**
Due Date: 5-day TAT

0695

Sampled by: Pedro Lopez (signature): Pedro Lopez

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - 24-hour composite	1	3-9-11	0800	Water	8 oz jar	4°C; pH<2; H_3PO_4	Total Organic Carbon by SM 5310
Intake - 24-hour composite	↓	↓	↓	Water	1-L AG	4°C; pH<2; H_2SO_4	Total Organic Nitrogen by SM 4500-N_{org}
Intake - 24-hour composite	↓	↓	↓	Water	125 mL P	4°C; zinc acetate; NaOH	Sulfide by SM 4500-S^2 F
Intake - 24-hour composite	↓	↓	↓	Water	250 mL P	4°C; pH<2; H_2SO_4	Nitrogen Ammonia by SM 4500 NH_3 C
Intake - 24-hour composite	↓	↓	↓	Water	250 mL P	4oC; pH >2 NaOH	Total Cyanide by SM 4500 CN E
Intake - Grab	2	3-8-11	0645	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Intake - Grab	3	3-8-11	1355	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Intake - Grab	4	3-8-11	1850	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Intake - Grab	5	3-9-11	0100	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1

Comments:
Include Quality Control data with report

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100		3/~~8~~9/11	1100
Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1255	CEL	3/9/11	1255
Rudy M	3/9/11	1655	CEL	3/9/11	1655

S:\LAB\COCFORMS\ENPS 2011 Permit Renewal COC.xls CalSci-In

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A Sempra Energy utility

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Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 2 of 2

Lab WO No. 11-03-039

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **18 (total)**
Due Date: 5-day TAT

0695

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Discharge - 24-hour composite	6	3-9-11	0820	Water	8 oz jar	4°C; pH<2; H_3PO_4	Total Organic Carbon by SM 5310
Discharge - 24-hour composite	↓	↓	↓	Water	1-L AG	4°C; pH<2; H_2SO_4	Total Organic Nitrogen by SM 4500-N_{org}
Discharge - 24-hour composite	↓	↓	↓	Water	125 mL P	4°C; zinc acetate; NaOH	Sulfide by SM 4500-S^2 F
Discharge - 24-hour composite	↓	↓	↓	Water	250 mL P	4°C; pH<2; H_2SO_4	Nitrogen Ammonia by SM 4500 NH_3 C
Discharge - 24-hour composite	↓	↓	↓	Water	250 mL P	4oC; pH >2 NaOH	Total Cyanide by SM 4500 CN E
Discharge - Grab	7	3-8-11	0708	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Discharge - Grab	8	3-8-11	1407	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Discharge - Grab	9	3-8-11	1912	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1
Discharge - Grab	10	3-9-11	0115	Water	1-L AG	4°C; pH<2; H_3PO_4	Total Phenols by EPA 420.1

Comments:
Include Quality Control data with report

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1100		3/9/11	1100
	3/9/11	1253	Rudy W CEC	3/9/11	1253
Rudy W	3/9/11	1655	Ca	3/9/11	1655

S:\LAB\COCFORMS\ENPS 2011 Permit Renewal COC.xls CalSci-Disch

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-03-0695

SAMPLE RECEIPT FORM

Cooler 1 **of** 1

CLIENT: SDGE **DATE:** 03/9/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C + 0.5 °C (CF) = 2.8 °C ☑ **Blank** ☐ **Sample**

☐ Sample(s) outside temperature criteria (PM/APM contacted by: ______).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Initial:** AM

CUSTODY SEALS INTACT:

☐ Cooler ☐______ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** AM

☐ Sample ☐______ ☐ No (Not Intact) ☑ Not Present **Initial:** PS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	~~☑~~ WS 03-09-11	☑	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (____) ☐EnCores® ☐TerraCores® ☐________

Water: ☐VOA ☐VOAh ☐VOAna₂ ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna₂ ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250P~~B~~Js PS 3/9/11 ☐250PBn ☐125PB ☑125P~~B~~Jznna PS 3/9/11 ☐100PJ ☐100PJna₂ ☑ 1AGBp ☑ 250PBna ☑ 8ozCGJ ?

Air: ☐Tedlar® ☐Summa® **Other:** ☐______ **Trip Blank Lot#:**________ **Labeled/Checked by:** PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** WS

Preservative: h: HCL n: HNO_3 na₂: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** WS

Calscience
Environmental
Laboratories, Inc.

WORK ORDER #: 11-03-0695

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☑ **Insufficient quantities for analysis** – list test — (-1), (-6) received 250 ml for total Cyanide.
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** __________

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: __________

*Transferred at Client's request.

Initial / Date: WS 03/09/11

D-TEK ANALYTICAL LABORATORIES, INC.
2722 Loker Ave. West, Suite B
Carlsbad, CA 92010
(760) 930-2555 FAX (760) 930-2510

San Diego Gas & Electric
6555 Nancy Ridge Drive, Suite 300
San Diego, CA 92121-0152

Date Sampled: 03/09/11
Date Received: 03/09/11
Date Reported: 03/18/11

Attn: Albert Menegus

Project ID: Cabrillo Power 1
Log Numbers: 11-1322 through 11-1323
Sample IDs: Intake 24-hour composite through Discharge 24-hr compos.

The following are attached:

- Analytical Report
- Quality Control Report
- Chain-of-Custody

Testing was conducted using EPA or equivalent methods approved by the State of California Department of Health Services. All applicable QC met the required acceptance criteria.

Thank you for choosing D-TEK to serve your analytical needs!

Reviewed and approved:

Ellen Atienza
Operations Manager

D-TEK ANALYTICAL LABORATORIES, INC.
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Carlsbad, CA 92010
(760) 930-2555 FAX (760) 930-2510

San Diego Gas & Electric
6555 Nancy Ridge Drive, Suite 300
San Diego, CA 92121-0152

Attn: Albert Menegus

Date Reported: 03/18/11
Date Sampled: 03/09/11
Date Received: 03/09/11
Sample Type: WATER

Project ID: Cabrillo Power 1

Log Number: **11-1322**
Sample ID: **Intake 24-hour composite**

ANALYTICAL RESULTS

Analysis	**Results**	**Units**	**Method**	**Analyst/Date**
BOD	3	mg/L	SM5210B	OJ 03/09/11
Color	< 2	PCU	SM2120 B	OJ 03/09/11
MBAS	0.10	mg/L	SM5540C	OJ 03/09/11
Sulfite	< 2.0	mg/L	4500SO3B	OJ 03/09/11

San Diego Gas & Electric
6555 Nancy Ridge Drive, Suite 300
San Diego, CA 92121-0152

Attn: Albert Menegus

Date Reported: 03/18/11
Date Sampled: 03/09/11
Date Received: 03/09/11
Sample Type: WATER

Project ID: Cabrillo Power 1

Log Number: **11-1323**
Sample ID: **Discharge 24-hr compos.**

ANALYTICAL RESULTS

Analysis	**Results**	**Units**	**Method**	**Analyst/Date**
BOD	2	mg/L	SM5210B	OJ 03/09/11
Color	< 2	PCU	SM2120 B	OJ 03/09/11
MBAS	0.07	mg/L	SM5540C	OJ 03/09/11
Sulfite	< 2.0	mg/L	4500SO3B	OJ 03/09/11

D-TEK ANALYTICAL LABORATORIES, INC.
2722 Loker Ave. West, Suite B
Carlsbad, CA 92010
(760) 930-2555 FAX (760) 930-2510

QUALITY CONTROL DATA REPORT

Report Date: 03/18/11

Log Numbers: 11-1322 through 11-1323

- * **LCS** - Laboratory Control Sample. The LCS is a blank spiked with a known amount of method analyte(s) obtained from independent standards and is carried through all sample preparation and analytical procedures. Recoveries are calculated in order to evaluate method accuracy.

- * **Spike** - The spike is an actual sample spiked with a known amount of method analyte(s) and is carried through all sample preparation and analytical procedures. Recoveries are calculated in order to evaluate potential matrix interferences.

- * **RPD** = Rel % Difference = ((Result 1 - Result 2) / Average Result) X 100%
  The RPD provides a measure of method precision by comparing analytical results of 2 duplicate samples.

- * **% Recovery** = ((Spike Sample Result - Sample Result) / Spike Conc) X 100%
  The result of the unspiked sample is treated as zero if it is less than established reporting limits.

QUALITY CONTROL DATA REPORT
Method(s): Inorganics

Report Date: 03/18/11

Log Numbers: 11-1322 through 11-1323

No target analytes were detected in the Method Blanks.

Analysis	Method	LCS % Recovery	Spike % Recovery	Duplicate RPD
BOD	SM5210B	101		
Color	SM2120 B	110		
MBAS	SM5540C	107		
Sulfite	4500SO3B	82	82	0

1126209

Page 1 of 1

SDGE

A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No.

Work ID: Encina Permit Recertification

Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: **8 (total)**
Due Date: 5-day TAT

Sampled by: Pedro Lopez (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake - 24-hour composite		3-9-11	0800	Water	1-L P	4°C	BOD by SM 5210 B
Intake - 24-hour composite		↓	↓	Water	500 mL P	4°C	Color by SM 2120 B Visual 11-1322
Intake - 24-hour composite		↓	↓	Water	250 mL P	4°C	Sulfite by SM 4500-S^2 F
Intake - 24-hour composite		↓	↓	Water	250 mL P	4°C	Surfactants (MBAS) by SM 5540 C
		–	–				
Discharge - 24-hour composite		3-9-11	0820	Water	1-L P	4°C	BOD by SM 5210 B
Discharge - 24-hour composite		↓	↓	Water	500 mL P	4°C	Color by SM 2120 B Visual 11-1323
Discharge - 24-hour composite		↓	↓	Water	250 mL P	4°C	Sulfite by SM 4500-S^2 F
Discharge - 24-hour composite		↓	↓	Water	250 mL P	4°C	Surfactants (MBAS) by SM 5540 C

Comments:
Include Quality Control data with report

Please send report to: amenegus@semprautilities.com and invoice to cyousef@semprautilities.com.

Releasing	Date	Time	Accepting	Date	Time
	3/9/11	1000		3/9/11	1000
Releasing	Date	Time	Accepting	Date	Time

ENVIRONMENTAL ANALYSIS LABORATORY

SDGE
A Sempra Energy utility

16 November 2010

Sheila Henika
Cabrillo Power 1, LLC
4600 Carlsbad Boulevard
Carlsbad, CA 92008-4301

RE: Encina Semiannual WW 2010 - 2nd Half

Enclosed are the results of analyses for samples received by the laboratory on 10/13/10 14:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dong
11/16/10

Authorized Signature

Christopher Q. Dong
Senior Chemist

Name / Title

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Intake	1010056-01	Water	10/13/10 10:20	10/13/10 14:30
Combined Discharge (DP 001)	1010056-02	Water	10/13/10 10:35	10/13/10 14:30
Comb. LVW (001-B - 001-H)	1010056-03	Water	10/13/10 12:15	10/13/10 14:30
Blank	1010056-04	Water	10/13/10 09:45	10/13/10 14:30

REPORT COMMENTS

1. This replaces the preliminary report issued on 26 October 2010.

2. The following analyses were subcontracted, please refer to the attached reports

   Dioxins: Vista Analytical Laboratory (NELAP No. 02102CA)
   Tributyltin - CRG Marine Laboratory (ELAP No. 2261)

3. SM 4500-H+ B: pH Value

This analysis was performed in the field during sampling.

4. Tributyltin - due to a shipping delay the original samples taken on 10/13/2010, arrived at the subcontract laboratory outside of the method temperature requirements. These samples were re-sampled on 11/3/2010, and were added to this work order. Please refer to Sample ID 1010056-05/

California ELAP Certified Methods

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Intake (1010056-01) Water Sampled: 10/13/10 10:20 Received: 10/13/10 14:30									
alpha-BHC	ND	0.0300	ug/l	1	0J14007	10/14/10	10/15/10	EPA 608	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.0600	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*64.9 %*	*10-124*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*10-133*		"	"	"	"	
1,1-Dichloroethene	ND	2.8	"	"	0J20001	10/20/10	10/21/10	EPA 624	
Methylene chloride	ND	18	"	"	"	"	"	"	
Chloroform	ND	1.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.8	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.8	"	"	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Trichloroethene	ND	1.9	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	4.1	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	7.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*97.6 %*	*88-110*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*86-115*		"	"	"	"	
Phenol	ND	1.5	"	"	0J15014	10/15/10	10/21/10	EPA 625	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	
2-Nitrophenol	ND	3.6	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.7	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
Azobenzene	ND	10	"	"	"	"	"	"	

California ELAP Certified Methods

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Intake (1010056-01) Water Sampled: 10/13/10 10:20 Received: 10/13/10 14:30									
Pentachlorophenol	ND	3.6	ug/l	1	0J15014	10/15/10	10/21/10	EPA 625	
Surrogate: 2-Fluorophenol		*46.1 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*59.2 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*68.8 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*72.8 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*88.2 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*87.8 %*	*33-141*		"	"	"	"	
Silver	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Arsenic	**1.2**	2.0	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	J
Cadmium	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Hexavalent Chromium	ND	10	"	"	0J14001	10/13/10	10/14/10	SM 3500-Cr B	
Copper	**0.44**	0.50	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	J
Cyanide (total)	ND	5.0	"	"	0J19015	10/19/10	10/20/10	SM 4500-CN E	
Mercury	**0.21**	0.10	"	"	0J20005	10/20/10	10/21/10	EPA 245.1	
Nickel	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Ammonia as N	**330**	50	"	"	0J18007	10/18/10	10/19/10	SM 4500-NH3 C	
Lead	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
pH	**8.12**		pH Units	"	0J14005	10/13/10	10/13/10	SM 4500-H+ B	
Selenium	ND	50	ug/l	"	0J20002	10/20/10	10/22/10	EPA 200.7	
Zinc	ND	60	"	"	"	"	"	"	
Combined Discharge (DP 001) (1010056-02) Water Sampled: 10/13/10 10:35 Received: 10/13/10 14:30									
alpha-BHC	ND	0.0300	ug/l	1	0J14007	10/14/10	10/15/10	EPA 608	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.0600	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.2 %*	*10-124*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*10-133*		"	"	"	"	
1,1-Dichloroethene	ND	2.8	"	"	0J20001	10/20/10	10/21/10	EPA 624	
Methylene chloride	ND	18	"	"	"	"	"	"	
Chloroform	ND	1.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.8	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.8	"	"	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Trichloroethene	ND	1.9	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	

California ELAP Certified Methods

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Combined Discharge (DP 001) (1010056-02) Water Sampled: 10/13/10 10:35 Received: 10/13/10 14:30									
Tetrachloroethene	ND	4.1	ug/l	1	0J20001	10/20/10	10/21/10	EPA 624	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	7.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*99.0 %*	*88-110*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*86-115*		"	"	"	"	
Phenol	ND	1.5	"	"	0J15014	10/15/10	10/21/10	EPA 625	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	
2-Nitrophenol	ND	3.6	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.7	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
Azobenzene	ND	10	"	"	"	"	"	"	
Pentachlorophenol	ND	3.6	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*49.4 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*61.3 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*69.6 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*71.3 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*99.3 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*84.9 %*	*33-141*		"	"	"	"	
Silver	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Arsenic	1.2	2.0	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	J
Cadmium	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Hexavalent Chromium	ND	10	"	"	0J14001	10/13/10	10/14/10	SM 3500-Cr B	
Copper	0.60	0.50	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	
Cyanide (total)	ND	5.0	"	"	0J19015	10/19/10	10/20/10	SM 4500-CN E	
Mercury	ND	0.10	"	"	0J20005	10/20/10	10/21/10	EPA 245.1	
Nickel	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Ammonia as N	340	50	"	"	0J18007	10/18/10	10/19/10	SM 4500-NH3 C	
Lead	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
pH	8.09		pH Units	"	0J14005	10/13/10	10/13/10	SM 4500-H+ B	
Selenium	ND	50	ug/l	"	0J20002	10/20/10	10/22/10	EPA 200.7	

California ELAP Certified Methods

San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Combined Discharge (DP 001) (1010056-02) Water Sampled: 10/13/10 10:35 Received: 10/13/10 14:30									
Zinc	ND	60	ug/l	1	0J20002	10/20/10	10/22/10	EPA 200.7	
Comb. LVW (001-B - 001-H) (1010056-03) Water Sampled: 10/13/10 12:15 Received: 10/13/10 14:30									
Aldrin	ND	0.0400	ug/l	1	0J14007	10/14/10	10/15/10	EPA 608	
alpha-BHC	ND	0.0300	"	"	"	"	"	"	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Chlordane (tech)	ND	1.00	"	"	"	"	"	"	
4,4′-DDD	ND	0.110	"	"	"	"	"	"	
4,4′-DDE	ND	0.0400	"	"	"	"	"	"	
4,4′-DDT	ND	0.120	"	"	"	"	"	"	
Dieldrin	ND	0.0200	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.660	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Endrin aldehyde	ND	0.230	"	"	"	"	"	"	
Heptachlor	ND	0.0300	"	"	"	"	"	"	
Heptachlor epoxide	ND	0.830	"	"	"	"	"	"	
Methoxychlor	ND	1.76	"	"	"	"	"	"	
Toxaphene	ND	1.00	"	"	"	"	"	"	
PCB-1016	ND	1.00	"	"	"	"	"	"	
PCB-1221	ND	1.00	"	"	"	"	"	"	
PCB-1232	ND	1.00	"	"	"	"	"	"	
PCB-1242	ND	1.00	"	"	"	"	"	"	
PCB-1248	ND	1.00	"	"	"	"	"	"	
PCB-1254	ND	1.00	"	"	"	"	"	"	
PCB-1260	ND	1.00	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*1300 %*	*10-124*		"	"	"	"	*A-01*
Surrogate: Decachlorobiphenyl		*111 %*	*10-133*		"	"	"	"	
Acrolein	ND	100	"	"	0J20001	10/20/10	10/21/10	EPA 624	
Acrylonitrile	ND	50	"	"	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	2.2	"	"	"	"	"	"	
Bromoform	ND	4.7	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.8	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Chloroform	ND	1.6	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comb. LVW (001-B - 001-H) (1010056-03) Water Sampled: 10/13/10 12:15 Received: 10/13/10 14:30									
Dibromochloromethane	ND	3.1	ug/l	1	0J20001	10/20/10	10/21/10	EPA 624	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.8	"	"	"	"	"	"	
1,1-Dichloroethene	ND	2.8	"	"	"	"	"	"	
Ethylbenzene	ND	7.2	"	"	"	"	"	"	
Methylene chloride	ND	18	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.9	"	"	"	"	"	"	
Tetrachloroethene	ND	4.1	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	1.9	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*97.8 %*	*88-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*86-115*		"	"	"	"	
Acenaphthene	ND	1.9	"	"	0J15014	10/15/10	10/21/10	EPA 625	
Acenaphthylene	ND	3.5	"	"	"	"	"	"	
Anthracene	ND	1.9	"	"	"	"	"	"	
Azobenzene	ND	10	"	"	"	"	"	"	
Benzidine	ND	10	"	"	"	"	"	"	
Benzo (a) anthracene	ND	7.8	"	"	"	"	"	"	
Benzo (a) pyrene	ND	7.8	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	4.8	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	4.1	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	2.5	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.3	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.7	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.7	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.5	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	2.5	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	2.5	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
3,3´-Dichlorobenzidine	ND	16	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
Diethyl phthalate	ND	1.9	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.6	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comb. LVW (001-B - 001-H) (1010056-03) Water	**Sampled: 10/13/10 12:15**		**Received: 10/13/10 14:30**						
2,4-Dimethylphenol	ND	2.7	ug/l	1	0J15014	10/15/10	10/21/10	EPA 625	
Di-n-butyl phthalate	ND	2.5	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.7	"	"	"	"	"	"	
Fluoranthene	ND	2.2	"	"	"	"	"	"	
Fluorene	ND	1.9	"	"	"	"	"	"	
Hexachlorobenzene	ND	1.9	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.90	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10	"	"	"	"	"	"	
Hexachloroethane	ND	1.6	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.7	"	"	"	"	"	"	
Isophorone	ND	2.2	"	"	"	"	"	"	
Naphthalene	ND	1.6	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	
2-Nitrophenol	ND	3.6	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	10	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	10	"	"	"	"	"	"	
Pentachlorophenol	ND	3.6	"	"	"	"	"	"	
Phenanthrene	ND	5.4	"	"	"	"	"	"	
Phenol	ND	1.5	"	"	"	"	"	"	
Pyrene	ND	1.9	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*37.7 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*46.2 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*70.0 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*72.5 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*93.2 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*98.0 %*	*33-141*		"	"	"	"	
Silver	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Arsenic	**1.2**	2.0	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	J
Beryllium	ND	0.010	mg/l	"	"	"	10/22/10	EPA 200.7	
Cadmium	ND	0.50	ug/l	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Chromium	ND	0.020	mg/l	"	0J20002	10/20/10	10/22/10	EPA 200.7	
Hexavalent Chromium	ND	10	ug/l	"	0J14001	10/13/10	10/14/10	SM 3500-Cr B	
Copper	**7.3**	0.50	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	
Cyanide (total)	ND	5.0	"	"	0J19015	10/19/10	10/20/10	SM 4500-CN E	
Mercury	**0.13**	0.10	"	"	0J20005	10/20/10	10/21/10	EPA 245.1	
Nickel	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comb. LVW (001-B - 001-H) (1010056-03) Water Sampled: 10/13/10 12:15 Received: 10/13/10 14:30									
Ammonia as N	**360**	50	ug/l	1	0J18007	10/18/10	10/19/10	SM 4500-NH3 C	
Lead	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
pH	7.71		pH Units	"	0J14005	10/13/10	10/13/10	SM 4500-H+ B	
Antimony	ND	0.10	mg/l	"	0J20002	10/20/10	10/22/10	EPA 200.7	
Selenium	ND	50	ug/l	"	"	"	"	"	
Thallium	**0.16**	0.10	mg/l	"	"	"	"	"	
Zinc	ND	60	ug/l	"	"	"	"	"	
Blank (1010056-04) Water Sampled: 10/13/10 09:45 Received: 10/13/10 14:30									
alpha-BHC	ND	0.0300	ug/l	1	0J14007	10/14/10	10/15/10	EPA 608	
beta-BHC	ND	0.0600	"	"	"	"	"	"	
delta-BHC	ND	0.0900	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0400	"	"	"	"	"	"	
Endosulfan I	ND	0.140	"	"	"	"	"	"	
Endosulfan II	ND	0.0400	"	"	"	"	"	"	
Endosulfan sulfate	ND	0.0600	"	"	"	"	"	"	
Endrin	ND	0.0600	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*64.9 %*	*10-124*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*103 %*	*10-133*		"	"	"	"	
1,1-Dichloroethene	ND	2.8	"	"	0J20001	10/20/10	10/21/10	EPA 624	
Methylene chloride	ND	18	"	"	"	"	"	"	
Chloroform	ND	1.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.8	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.8	"	"	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Trichloroethene	ND	1.9	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	4.1	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	7.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*86-118*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*	*88-110*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*86-115*		"	"	"	"	
Phenol	ND	1.5	"	"	0J15014	10/15/10	10/21/10	EPA 625	
2-Chlorophenol	ND	3.3	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Nitrobenzene	ND	1.9	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Blank (1010056-04) Water Sampled: 10/13/10 09:45 Received: 10/13/10 14:30									
2-Nitrophenol	ND	3.6	ug/l	1	0J15014	10/15/10	10/21/10	EPA 625	
2,4-Dimethylphenol	ND	2.7	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.7	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	3.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.7	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	42	"	"	"	"	"	"	
4-Nitrophenol	ND	2.4	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	24	"	"	"	"	"	"	
Azobenzene	ND	10	"	"	"	"	"	"	
Pentachlorophenol	ND	3.6	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		*36.0 %*	*21-110*		"	"	"	"	
Surrogate: Phenol-d6		*35.5 %*	*10-110*		"	"	"	"	
Surrogate: Nitrobenzene-d5		*68.6 %*	*35-114*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*75.0 %*	*43-116*		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		*107 %*	*10-123*		"	"	"	"	
Surrogate: Terphenyl-d14		*90.4 %*	*33-141*		"	"	"	"	
Silver	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Arsenic	ND	2.0	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	
Cadmium	ND	0.50	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Hexavalent Chromium	ND	10	"	"	0J14001	10/13/10	10/14/10	SM 3500-Cr B	
Copper	0.49	0.50	"	"	0J20002	10/20/10	10/26/10	EPA 200.8	J
Cyanide (total)	ND	5.0	"	"	0J19015	10/19/10	10/20/10	SM 4500-CN E	
Mercury	ND	0.10	"	"	0J20005	10/20/10	10/21/10	EPA 245.1	
Nickel	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
Ammonia as N	330	50	"	"	0J18007	10/18/10	10/19/10	SM 4500-NH3 C	
Lead	ND	2.5	"	"	0J20004	10/20/10	10/25/10	SM 3113 B	
pH	5.78		pH Units	"	0J14005	10/13/10	10/13/10	SM 4500-H+ B	
Selenium	ND	50	ug/l	"	0J20002	10/20/10	10/22/10	EPA 200.7	
Zinc	ND	60	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

California ELAP Certified Methods - Quality Control
San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14001 - No Prep.-Metals										
Blank (0J14001-BLK1)				Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	ND	10	ug/l							
LCS (0J14001-BS1)				Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	923	10	ug/l	1000		92.3	90-110			
Duplicate (0J14001-DUP1)	Source: 1010049-01			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	ND	10	ug/l		ND				200	
Duplicate (0J14001-DUP2)	Source: 1010049-11			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	ND	10	ug/l		ND				200	
Duplicate (0J14001-DUP3)	Source: 1010056-01			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	ND	10	ug/l		ND				200	
Matrix Spike (0J14001-MS1)	Source: 1010049-01			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	946	10	ug/l	1000	ND	94.6	75-125			
Matrix Spike (0J14001-MS2)	Source: 1010049-11			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	989	10	ug/l	1000	ND	98.9	75-125			
Matrix Spike (0J14001-MS3)	Source: 1010056-01			Prepared: 10/13/10 Analyzed: 10/14/10						
Hexavalent Chromium	986	10	ug/l	1000	ND	98.6	75-125			
Batch 0J14007 - 3510C										
Blank (0J14007-BLK1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Surrogate: Tetrachloro-meta-xylene	*0.0765*		*ug/l*	*0.200*		*38.2*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.213*		*"*	*0.200*		*107*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.0765*		*"*	*0.200*		*38.2*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.213*		*"*	*0.200*		*107*	*10-133*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
Blank (0J14007-BLK1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Aldrin	ND	0.0400	ug/l							
alpha-BHC	ND	0.0300	"							
alpha-BHC	ND	0.0300	"							
beta-BHC	ND	0.0600	"							
beta-BHC	ND	0.0600	"							
delta-BHC	ND	0.0900	"							
gamma-BHC (Lindane)	ND	0.0400	"							
delta-BHC	ND	0.0900	"							
Endosulfan I	ND	0.140	"							
gamma-BHC (Lindane)	ND	0.0400	"							
Endosulfan II	ND	0.0400	"							
Chlordane (tech)	ND	1.00	"							
Endosulfan sulfate	ND	0.0600	"							
4,4'-DDD	ND	0.110	"							
Endrin	ND	0.0600	"							
4,4'-DDE	ND	0.0400	"							
4,4'-DDT	ND	0.120	"							
Dieldrin	ND	0.0200	"							
Endosulfan I	ND	0.140	"							
Endosulfan II	ND	0.0400	"							
Endosulfan sulfate	ND	0.660	"							
Endrin	ND	0.0600	"							
Endrin aldehyde	ND	0.230	"							
Heptachlor	ND	0.0300	"							
Heptachlor epoxide	ND	0.830	"							
Methoxychlor	ND	1.76	"							
Toxaphene	ND	1.00	"							
PCB-1016	ND	1.00	"							
PCB-1221	ND	1.00	"							
PCB-1232	ND	1.00	"							
PCB-1242	ND	1.00	"							
PCB-1248	ND	1.00	"							
PCB-1254	ND	1.00	"							
PCB-1260	ND	1.00	"							
LCS (0J14007-BS1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Surrogate: Tetrachloro-meta-xylene	*0.118*		*ug/l*	*0.200*		*58.9*	*10-124*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
LCS (0J14007-BS1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Surrogate: Decachlorobiphenyl	*0.212*		*ug/l*	*0.200*		*106*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.118*		*"*	*0.200*		*58.9*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.212*		*"*	*0.200*		*106*	*10-133*			
alpha-BHC	0.190	0.0300	"	0.200		94.9	37-134			
Aldrin	0.139	0.0400	"	0.200		69.6	42-122			
beta-BHC	0.194	0.0600	"	0.200		97.1	14-147			
alpha-BHC	0.190	0.0300	"	0.200		94.9	37-134			
delta-BHC	0.192	0.0900	"	0.200		96.1	19-140			
beta-BHC	0.194	0.0600	"	0.200		97.1	14-147			
gamma-BHC (Lindane)	0.218	0.0400	"	0.200		109	32-127			
delta-BHC	0.192	0.0900	"	0.200		96.1	19-140			
gamma-BHC (Lindane)	0.218	0.0400	"	0.200		109	32-127			
Endosulfan I	0.188	0.140	"	0.200		93.9	45-153			
Chlordane (tech)	ND	1.00	"				45-119			
Endosulfan II	0.340	0.0400	"	0.400		85.0	2-202			
4,4'-DDD	0.404	0.110	"	0.400		101	30-141			
Endosulfan sulfate	0.362	0.0600	"	0.400		90.5	26-144			
4,4'-DDE	0.390	0.0400	"	0.400		97.4	30-145			
Endrin	0.391	0.0600	"	0.400		97.8	30-147			
4,4'-DDT	0.409	0.120	"	0.400		102	25-160			
Dieldrin	0.386	0.0200	"	0.400		96.4	36-146			
Endosulfan I	0.188	0.140	"	0.200		93.9	45-153			
Endosulfan II	0.340	0.0400	"	0.400		85.0	2-202			
Endosulfan sulfate	0.362	0.0600	"	0.400		90.5	26-144			
Endrin	0.391	0.0600	"	0.400		97.8	30-147			
Heptachlor	0.184	0.0300	"	0.200		92.2	34-111			
Heptachlor epoxide	0.189	0.0830	"	0.200		94.6	37-142			
Toxaphene	ND	1.00	"				41-126			
PCB-1016	ND	1.00	"				50-114			
PCB-1221	ND	1.00	"				15-178			
PCB-1232	ND	1.00	"				10-215			
PCB-1242	ND	1.00	"				39-150			
PCB-1248	ND	1.00	"				38-158			
PCB-1254	ND	1.00	"				29-131			
PCB-1260	ND	1.00	"				8-127			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
LCS Dup (0J14007-BSD1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Surrogate: Tetrachloro-meta-xylene	*0.129*		*ug/l*	*0.200*		*64.4*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.211*		"	*0.200*		*106*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.129*		"	*0.200*		*64.4*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.211*		"	*0.200*		*106*	*10-133*			
Aldrin	0.156	0.0400	"	0.200		77.9	42-122	11.2	200	
alpha-BHC	0.191	0.0300	"	0.200		95.5	37-134	0.643	200	
beta-BHC	0.194	0.0600	"	0.200		96.9	14-147	0.260	200	
alpha-BHC	0.191	0.0300	"	0.200		95.5	37-134	0.643	200	
delta-BHC	0.191	0.0900	"	0.200		95.6	19-140	0.508	200	
beta-BHC	0.194	0.0600	"	0.200		96.9	14-147	0.260	200	
delta-BHC	0.191	0.0900	"	0.200		95.6	19-140	0.508	200	
gamma-BHC (Lindane)	0.217	0.0400	"	0.200		108	32-127	0.736	200	
gamma-BHC (Lindane)	0.217	0.0400	"	0.200		108	32-127	0.736	200	
Endosulfan I	0.185	0.140	"	0.200		92.7	45-153	1.31	200	
Chlordane (tech)	ND	1.00	"				45-119		200	
Endosulfan II	0.339	0.0400	"	0.400		84.9	2-202	0.126	200	
4,4'-DDD	0.400	0.110	"	0.400		100	30-141	1.06	200	
Endosulfan sulfate	0.364	0.0600	"	0.400		90.9	26-144	0.449	200	
4,4'-DDE	0.392	0.0400	"	0.400		98.0	30-145	0.602	200	
Endrin	0.393	0.0600	"	0.400		98.2	30-147	0.363	200	
4,4'-DDT	0.410	0.120	"	0.400		103	25-160	0.393	200	
Dieldrin	0.382	0.0200	"	0.400		95.4	36-146	1.05	200	
Endosulfan I	0.185	0.140	"	0.200		92.7	45-153	1.31	200	
Endosulfan II	0.339	0.0400	"	0.400		84.9	2-202	0.126	200	
Endosulfan sulfate	0.364	0.0600	"	0.400		90.9	26-144	0.449	200	
Endrin	0.393	0.0600	"	0.400		98.2	30-147	0.363	200	
Heptachlor	0.204	0.0300	"	0.200		102	34-111	10.1	200	
Heptachlor epoxide	0.186	0.0800	"	0.200		93.1	37-142	1.66	200	
Toxaphene	ND	1.00	"				41-126		200	
PCB-1016	ND	1.00	"				50-114		200	
PCB-1221	ND	1.00	"				15-178		200	
PCB-1232	ND	1.00	"				10-215		200	
PCB-1242	ND	1.00	"				39-150		200	
PCB-1248	ND	1.00	"				38-158		200	
PCB-1254	ND	1.00	"				29-131		200	
PCB-1260	ND	1.00	"				8-127		200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
LCS Dup (0J14007-BSD1)				Prepared: 10/14/10 Analyzed: 10/15/10						
Matrix Spike (0J14007-MS1)		Source: 1010056-02		Prepared: 10/14/10 Analyzed: 10/15/10						
Surrogate: Tetrachloro-meta-xylene	*0.147*		*ug/l*	*0.208*		*70.5*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.231*		*"*	*0.208*		*111*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.147*		*"*	*0.208*		*70.5*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.231*		*"*	*0.208*		*111*	*10-133*			
alpha-BHC	0.196	0.0300	"	0.208	ND	94.2	37-134			
Aldrin	0.184	0.0400	"	0.208	0.00	88.3	42-122			
beta-BHC	0.205	0.0600	"	0.208	ND	98.3	17-147			
alpha-BHC	0.196	0.0300	"	0.208	0.0124	88.3	37-134			
beta-BHC	0.205	0.0600	"	0.208	0.00527	95.7	17-147			
delta-BHC	0.204	0.0900	"	0.208	ND	98.0	19-140			
delta-BHC	0.204	0.0900	"	0.208	0.00	98.0	19-140			
gamma-BHC (Lindane)	0.191	0.0400	"	0.208	ND	91.6	32-127			
gamma-BHC (Lindane)	0.191	0.0400	"	0.208	0.00	91.6	32-127			
Endosulfan I	0.196	0.140	"	0.208	ND	93.9	45-153			
Chlordane (tech)	ND	1.00	"		0.00		45-119			
Endosulfan II	0.363	0.0400	"	0.417	ND	87.2	2-202			
4,4´-DDD	0.428	0.110	"	0.417	0.00	103	31-141			
Endosulfan sulfate	0.392	0.0600	"	0.417	ND	94.0	26-144			
Endrin	0.411	0.0600	"	0.417	ND	98.7	30-147			
4,4´-DDE	0.417	0.0400	"	0.417	0.00	100	30-145			
4,4´-DDT	0.449	0.120	"	0.417	0.0157	104	25-160			
Dieldrin	0.403	0.0200	"	0.417	0.00	96.6	36-146			
Endosulfan I	0.196	0.140	"	0.208	0.00	93.9	45-153			
Endosulfan II	0.363	0.0400	"	0.417	0.00	87.2	2-202			
Endosulfan sulfate	0.392	0.0600	"	0.417	0.00	94.0	26-144			
Endrin	0.411	0.0600	"	0.417	0.00	98.7	30-147			
Heptachlor	0.194	0.0300	"	0.208	0.00714	89.7	34-111			
Heptachlor epoxide	0.196	0.0800	"	0.208	0.00	94.0	37-142			
Toxaphene	ND	1.00	"		0.00		41-126			
PCB-1016	ND	1.00	"		0.00		50-114			
PCB-1221	ND	1.00	"		0.00		15-178			
PCB-1232	ND	1.00	"		0.00		10-215			
PCB-1242	ND	1.00	"		0.00		39-150			
PCB-1248	ND	1.00	"		0.00		38-158			
PCB-1254	ND	1.00	"		0.00		29-131			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
Matrix Spike (0J14007-MS1)		**Source: 1010056-02**		**Prepared: 10/14/10**		**Analyzed: 10/15/10**				
PCB-1260	ND	1.00	ug/l		0.00		8-127			
Matrix Spike Dup (0J14007-MSD1)		**Source: 1010056-02**		**Prepared: 10/14/10**		**Analyzed: 10/15/10**				
Surrogate: Tetrachloro-meta-xylene	*0.112*		*ug/l*	*0.197*		*56.7*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.179*		"	*0.197*		*90.9*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.112*		"	*0.197*		*56.7*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.179*		"	*0.197*		*90.9*	*10-133*			
alpha-BHC	0.214	0.0300	"	0.197	ND	109	37-134	8.58	200	
Aldrin	0.177	0.0400	"	0.197	0.00	89.8	42-122	3.93	200	
beta-BHC	0.220	0.0600	"	0.197	ND	111	17-147	7.05	200	
alpha-BHC	0.214	0.0300	"	0.197	0.0124	102	37-134	8.58	200	
delta-BHC	0.220	0.0900	"	0.197	ND	112	19-140	7.39	200	
beta-BHC	0.220	0.0600	"	0.197	0.00527	109	17-147	7.05	200	
gamma-BHC (Lindane)	0.206	0.0400	"	0.197	ND	105	32-127	7.72	200	
delta-BHC	0.220	0.0900	"	0.197	0.00	112	19-140	7.39	200	
gamma-BHC (Lindane)	0.206	0.0400	"	0.197	0.00	105	32-127	7.72	200	
Endosulfan I	0.200	0.140	"	0.197	ND	101	45-153	2.04	200	
Chlordane (tech)	ND	1.00	"		0.00		45-119		200	
Endosulfan II	0.363	0.0400	"	0.394	ND	92.2	2-202	0.0142	200	
4,4'-DDD	0.446	0.110	"	0.394	0.00	113	31-141	4.06	200	
Endosulfan sulfate	0.398	0.0600	"	0.394	ND	101	26-144	1.50	200	
Endrin	0.423	0.0600	"	0.394	ND	107	30-147	2.88	200	
4,4'-DDE	0.414	0.0400	"	0.394	0.00	105	30-145	0.796	200	
4,4'-DDT	0.444	0.120	"	0.394	0.0157	109	25-160	0.964	200	
Dieldrin	0.405	0.0200	"	0.394	0.00	103	36-146	0.587	200	
Endosulfan I	0.200	0.140	"	0.197	0.00	101	45-153	2.04	200	
Endosulfan II	0.363	0.0400	"	0.394	0.00	92.2	2-202	0.0142	200	
Endosulfan sulfate	0.398	0.0600	"	0.394	0.00	101	26-144	1.50	200	
Endrin	0.423	0.0600	"	0.394	0.00	107	30-147	2.88	200	
Heptachlor	0.192	0.0300	"	0.197	0.00714	93.7	34-111	1.09	200	
Heptachlor epoxide	0.201	0.0800	"	0.197	0.00	102	37-142	2.45	200	
Toxaphene	ND	1.00	"		0.00		41-126		200	
PCB-1016	ND	1.00	"		0.00		50-114		200	
PCB-1221	ND	1.00	"		0.00		15-178		200	
PCB-1232	ND	1.00	"		0.00		10-215		200	
PCB-1242	ND	1.00	"		0.00		39-150		200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J14007 - 3510C										
Matrix Spike Dup (0J14007-MSD1)		**Source: 1010056-02**		**Prepared: 10/14/10 Analyzed: 10/15/10**						
PCB-1248	ND	1.00	ug/l		0.00		38-158		200	
PCB-1254	ND	1.00	"		0.00		29-131		200	
PCB-1260	ND	1.00	"		0.00		8-127		200	
Reference (0J14007-SRM1)				**Prepared: 10/14/10 Analyzed: 10/15/10**						
Surrogate: Tetrachloro-meta-xylene	*0.137*		*ug/l*	*0.200*		*68.7*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.223*		*"*	*0.200*		*112*	*10-133*			
Surrogate: Tetrachloro-meta-xylene	*0.137*		*"*	*0.200*		*68.7*	*10-124*			
Surrogate: Decachlorobiphenyl	*0.223*		*"*	*0.200*		*112*	*10-133*			
alpha-BHC	0.195	0.0300	"	0.200		97.5	0-200			
Aldrin	0.166	0.0400	"	0.200		83.1	0-200			
beta-BHC	0.189	0.0600	"	0.200		94.3	0-200			
alpha-BHC	0.195	0.0300	"	0.200		97.5	0-200			
beta-BHC	0.189	0.0600	"	0.200		94.3	0-200			
delta-BHC	0.203	0.0900	"	0.200		101	0-200			
gamma-BHC (Lindane)	0.227	0.0400	"	0.200		114	0-200			
delta-BHC	0.203	0.0900	"	0.200		101	0-200			
gamma-BHC (Lindane)	0.227	0.0400	"	0.200		114	0-200			
Endosulfan I	0.192	0.140	"	0.200		96.2	0-200			
Endosulfan II	0.369	0.0400	"	0.400		92.1	0-200			
Endosulfan sulfate	0.388	0.0600	"	0.400		97.0	0-200			
4,4'-DDD	0.440	0.110	"	0.400		110	0-200			
4,4'-DDE	0.410	0.0400	"	0.400		103	0-200			
Endrin	0.421	0.0600	"	0.400		105	0-200			
4,4'-DDT	0.430	0.120	"	0.400		108	0-200			
Dieldrin	0.403	0.0200	"	0.400		101	0-200			
Endosulfan I	0.192	0.140	"	0.200		96.2	0-200			
Endosulfan II	0.369	0.0400	"	0.400		92.1	0-200			
Endosulfan sulfate	0.388	0.0600	"	0.400		97.0	0-200			
Endrin	0.421	0.0600	"	0.400		105	0-200			
Endrin aldehyde	0.251	0.230	"	0.400		62.7	0-200			
Heptachlor	0.214	0.0300	"	0.200		107	0-200			
Heptachlor epoxide	0.197	0.0800	"	0.200		98.6	0-200			
Methoxychlor	2.40	1.76	"	2.00		120	0-200			

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Batch 0J15014 - EPA 3510C

Blank (0J15014-BLK1) Prepared: 10/15/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2-Fluorophenol	*38.0*		*ug/l*	*100*		*38.0*	*21-110*			
Surrogate: Phenol-d6	*37.3*		"	*100*		*37.3*	*10-110*			
Surrogate: Nitrobenzene-d5	*34.8*		"	*50.0*		*69.6*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*39.0*		"	*50.0*		*78.0*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*84.4*		"	*100*		*84.4*	*10-123*			
Surrogate: Terphenyl-d14	*41.9*		"	*50.0*		*83.8*	*33-141*			
Surrogate: 2-Fluorophenol	*38.0*		"	*100*		*38.0*	*21-110*			
Surrogate: Phenol-d6	*37.3*		"	*100*		*37.3*	*10-110*			
Surrogate: Nitrobenzene-d5	*34.8*		"	*50.0*		*69.6*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*39.0*		"	*50.0*		*78.0*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*84.4*		"	*100*		*84.4*	*10-123*			
Surrogate: Terphenyl-d14	*41.9*		"	*50.0*		*83.8*	*33-141*			
Acenaphthene	ND	1.9	"							
Acenaphthylene	ND	3.5	"							
Phenol	ND	1.5	"							
Anthracene	ND	1.9	"							
2-Chlorophenol	ND	3.3	"							
1,4-Dichlorobenzene	ND	4.4	"							
Azobenzene	ND	10	"							
Nitrobenzene	ND	1.9	"							
Benzidine	ND	10	"							
Benzo (a) anthracene	ND	7.8	"							
2-Nitrophenol	ND	3.6	"							
2,4-Dimethylphenol	ND	2.7	"							
Benzo (a) pyrene	ND	7.8	"							
2,4-Dichlorophenol	ND	2.7	"							
Benzo (b) fluoranthene	ND	4.8	"							
4-Chloro-3-methylphenol	ND	3.0	"							
Benzo (g,h,i) perylene	ND	4.1	"							
Benzo (k) fluoranthene	ND	2.5	"							
2,4,6-Trichlorophenol	ND	2.7	"							
Bis(2-chloroethoxy)methane	ND	5.3	"							
2,4-Dinitrophenol	ND	42	"							
Bis(2-chloroethyl)ether	ND	5.7	"							
4-Nitrophenol	ND	2.4	"							
4,6-Dinitro-2-methylphenol	ND	24	"							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Blank (0J15014-BLK1)				Prepared: 10/15/10 Analyzed: 10/21/10						
Bis(2-chloroisopropyl)ether	ND	5.7	ug/l							
Azobenzene	ND	10	"							
Bis(2-ethylhexyl)phthalate	ND	2.5	"							
Pentachlorophenol	ND	3.6	"							
4-Chloro-3-methylphenol	ND	3.0	"							
2-Chlorophenol	ND	3.3	"							
Chrysene	ND	2.5	"							
Dibenz (a,h) anthracene	ND	2.5	"							
1,4-Dichlorobenzene	ND	4.4	"							
3,3'-Dichlorobenzidine	ND	16	"							
2,4-Dichlorophenol	ND	2.7	"							
Diethyl phthalate	ND	1.9	"							
Dimethyl phthalate	ND	1.6	"							
2,4-Dimethylphenol	ND	2.7	"							
Di-n-butyl phthalate	ND	2.5	"							
4,6-Dinitro-2-methylphenol	ND	24	"							
2,4-Dinitrophenol	ND	42	"							
2,4-Dinitrotoluene	ND	5.7	"							
Fluoranthene	ND	2.2	"							
Fluorene	ND	1.9	"							
Hexachlorobenzene	ND	1.9	"							
Hexachlorobutadiene	ND	0.90	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	1.6	"							
Indeno (1,2,3-cd) pyrene	ND	3.7	"							
Isophorone	ND	2.2	"							
Naphthalene	ND	1.6	"							
Nitrobenzene	ND	1.9	"							
2-Nitrophenol	ND	3.6	"							
4-Nitrophenol	ND	2.4	"							
N-Nitrosodimethylamine	ND	10	"							
N-Nitrosodi-n-propylamine	ND	10	"							
N-Nitrosodiphenylamine	ND	10	"							
Pentachlorophenol	ND	3.6	"							
Phenanthrene	ND	5.4	"							
Phenol	ND	1.5	"							
Pyrene	ND	1.9	"							
2,4,6-Trichlorophenol	ND	2.7	"							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Blank (0J15014-BLK1)				Prepared: 10/15/10 Analyzed: 10/21/10						
LCS (0J15014-BS1)				Prepared: 10/15/10 Analyzed: 10/21/10						
Surrogate: 2-Fluorophenol	*36.9*		*ug/l*	*100*		*36.9*	*21-110*			
Surrogate: Phenol-d6	*42.4*		"	*100*		*42.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.4*		"	*50.0*		*72.8*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*38.7*		"	*50.0*		*77.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*101*		"	*100*		*101*	*10-123*			
Surrogate: Terphenyl-d14	*48.4*		"	*50.0*		*96.7*	*33-141*			
Surrogate: 2-Fluorophenol	*36.9*		"	*100*		*36.9*	*21-110*			
Surrogate: Phenol-d6	*42.4*		"	*100*		*42.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.4*		"	*50.0*		*72.8*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*38.7*		"	*50.0*		*77.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*101*		"	*100*		*101*	*10-123*			
Surrogate: Terphenyl-d14	*48.4*		"	*50.0*		*96.7*	*33-141*			
Acenaphthene	84.0	1.9	"	100		84.0	47-145			
Phenol	30.9	1.5	"	100		30.9	5-112			
Acenaphthylene	84.0	3.5	"	100		84.0	33-145			
Anthracene	92.7	1.9	"	100		92.7	27-133			
2-Chlorophenol	60.7	3.3	"	100		60.7	23-134			
1,4-Dichlorobenzene	61.4	4.4	"	100		61.4	20-124			
Nitrobenzene	76.1	1.9	"	100		76.1	35-180			
2-Nitrophenol	81.0	3.6	"	100		81.0	29-182			
Benzo (a) anthracene	93.6	7.8	"	100		93.6	33-143			
Benzo (a) pyrene	95.9	7.8	"	100		95.9	17-163			
2,4-Dimethylphenol	52.1	2.7	"	100		52.1	32-119			
Benzo (b) fluoranthene	95.1	4.8	"	100		95.1	24-159			
2,4-Dichlorophenol	80.8	2.7	"	100		80.8	39-135			
4-Chloro-3-methylphenol	80.6	3.0	"	100		80.6	22-147			
Benzo (g,h,i) perylene	89.2	4.1	"	100		89.2	1-219			
Benzo (k) fluoranthene	90.5	2.5	"	100		90.5	11-162			
2,4,6-Trichlorophenol	87.5	2.7	"	100		87.5	37-144			
2,4-Dinitrophenol	107	42	"	100		107	10-191			
Bis(2-chloroethoxy)methane	77.0	5.3	"	100		77.0	33-184			
4-Nitrophenol	57.2	2.4	"	100		57.2	10-132			
Bis(2-chloroethyl)ether	68.1	5.7	"	100		68.1	12-158			
Bis(2-chloroisopropyl)ether	73.8	5.7	"	100		73.8	36-166			

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Batch 0J15014 - EPA 3510C

LCS (0J15014-BS1) Prepared: 10/15/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,6-Dinitro-2-methylphenol	124	24	ug/l	100		124	10-181			
Azobenzene	89.6	10	"	100		89.6	10-120			
Bis(2-ethylhexyl)phthalate	92.0	2.5	"	100		92.0	8-158			
4-Chloro-3-methylphenol	80.6	3.0	"	100		80.6	22-147			
Pentachlorophenol	123	3.6	"	100		123	14-176			
2-Chlorophenol	60.7	3.3	"	100		60.7	23-134			
Chrysene	95.4	2.5	"	100		95.4	17-168			
Dibenz (a,h) anthracene	101	2.5	"	100		101	1-227			
1,4-Dichlorobenzene	61.4	4.4	"	100		61.4	0-200			
3,3'-Dichlorobenzidine	139	16	"	100		139	1-262			
2,4-Dichlorophenol	80.8	2.7	"	100		80.8	39-135			
Diethyl phthalate	88.8	1.9	"	100		88.8	1-114			
Dimethyl phthalate	62.2	1.6	"	100		62.2	1-112			
2,4-Dimethylphenol	52.1	2.7	"	100		52.1	32-119			
Di-n-butyl phthalate	96.3	2.5	"	100		96.3	1-118			
4,6-Dinitro-2-methylphenol	124	24	"	100		124	1-181			
2,4-Dinitrophenol	107	42	"	100		107	1-191			
2,4-Dinitrotoluene	105	5.7	"	100		105	39-139			
Fluoranthene	102	2.2	"	100		102	26-137			
Fluorene	92.8	1.9	"	100		92.8	59-121			
Hexachlorobenzene	87.4	1.9	"	100		87.4	1-152			
Hexachlorobutadiene	60.4	0.90	"	100		60.4	24-116			
Hexachloroethane	56.0	1.6	"	100		56.0	40-113			
Indeno (1,2,3-cd) pyrene	94.7	3.7	"	100		94.7	1-171			
Isophorone	80.1	2.2	"	100		80.1	21-196			
Naphthalene	71.7	1.6	"	100		71.7	21-133			
Nitrobenzene	76.1	1.9	"	100		76.1	35-180			
2-Nitrophenol	81.0	3.6	"	100		81.0	29-182			
4-Nitrophenol	57.2	2.4	"	100		57.2	1-132			
N-Nitrosodi-n-propylamine	83.0	10	"	100		83.0	1-230			
Pentachlorophenol	123	3.6	"	100		123	14-176			
Phenanthrene	92.2	5.4	"	100		92.2	54-120			
Phenol	30.9	1.5	"	100		30.9	5-112			
Pyrene	96.4	1.9	"	100		96.4	52-115			
2,4,6-Trichlorophenol	87.5	2.7	"	100		87.5	37-144			

LCS Dup (0J15014-BSD1) Prepared: 10/15/10 Analyzed: 10/21/10

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San Diego Gas & Electric

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
LCS Dup (0J15014-BSD1)				Prepared: 10/15/10 Analyzed: 10/21/10						
Surrogate: 2-Fluorophenol	*38.5*		*ug/l*	*100*		*38.5*	*21-110*			
Surrogate: Phenol-d6	*43.6*		"	*100*		*43.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.0*		"	*50.0*		*72.0*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*38.2*		"	*50.0*		*76.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*99.2*		"	*100*		*99.2*	*10-123*			
Surrogate: Terphenyl-d14	*45.4*		"	*50.0*		*90.7*	*33-141*			
Surrogate: 2-Fluorophenol	*38.5*		"	*100*		*38.5*	*21-110*			
Surrogate: Phenol-d6	*43.6*		"	*100*		*43.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*36.0*		"	*50.0*		*72.0*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*38.2*		"	*50.0*		*76.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*99.2*		"	*100*		*99.2*	*10-123*			
Surrogate: Terphenyl-d14	*45.4*		"	*50.0*		*90.7*	*33-141*			
Acenaphthene	84.2	1.9	"	100		84.2	47-145	0.166	200	
Acenaphthylene	83.4	3.5	"	100		83.4	33-145	0.657	200	
Phenol	32.4	1.5	"	100		32.4	5-112	4.90	200	
2-Chlorophenol	63.1	3.3	"	100		63.1	23-134	3.91	200	
Anthracene	91.7	1.9	"	100		91.7	27-133	1.05	200	
1,4-Dichlorobenzene	59.2	4.4	"	100		59.2	20-124	3.53	200	
Nitrobenzene	75.3	1.9	"	100		75.3	35-180	1.04	200	
2-Nitrophenol	80.9	3.6	"	100		80.9	29-182	0.173	200	
Benzo (a) anthracene	93.8	7.8	"	100		93.8	33-143	0.192	200	
2,4-Dimethylphenol	52.2	2.7	"	100		52.2	32-119	0.115	200	
Benzo (a) pyrene	93.8	7.8	"	100		93.8	17-163	2.27	200	
Benzo (b) fluoranthene	93.3	4.8	"	100		93.3	24-159	1.93	200	
2,4-Dichlorophenol	82.5	2.7	"	100		82.5	39-135	2.08	200	
4-Chloro-3-methylphenol	84.8	3.0	"	100		84.8	22-147	5.11	200	
Benzo (g,h,i) perylene	98.2	4.1	"	100		98.2	1-219	9.59	200	
2,4,6-Trichlorophenol	89.5	2.7	"	100		89.5	37-144	2.24	200	
Benzo (k) fluoranthene	88.0	2.5	"	100		88.0	11-162	2.82	200	
Bis(2-chloroethoxy)methane	75.9	5.3	"	100		75.9	33-184	1.35	200	
2,4-Dinitrophenol	109	42	"	100		109	10-191	1.87	200	
Bis(2-chloroethyl)ether	66.1	5.7	"	100		66.1	12-158	2.95	200	
4-Nitrophenol	59.5	2.4	"	100		59.5	10-132	4.03	200	
Bis(2-chloroisopropyl)ether	73.6	5.7	"	100		73.6	36-166	0.244	200	
4,6-Dinitro-2-methylphenol	126	24	"	100		126	10-181	1.76	200	
Azobenzene	92.0	10	"	100		92.0	10-120	2.73	200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
LCS Dup (0J15014-BSD1)				Prepared: 10/15/10 Analyzed: 10/21/10						
Bis(2-ethylhexyl)phthalate	94.1	2.5	ug/l	100		94.1	8-158	2.30	200	
Pentachlorophenol	124	3.6	"	100		124	14-176	1.24	200	
4-Chloro-3-methylphenol	84.8	3.0	"	100		84.8	22-147	5.11	200	
2-Chlorophenol	63.1	3.3	"	100		63.1	23-134	3.91	200	
Chrysene	96.9	2.5	"	100		96.9	17-168	1.55	200	
Dibenz (a,h) anthracene	110	2.5	"	100		110	1-227	9.06	200	
1,4-Dichlorobenzene	59.2	4.4	"	100		59.2	0-200	3.53	200	
3,3'-Dichlorobenzidine	146	16	"	100		146	1-262	5.35	200	
2,4-Dichlorophenol	82.5	2.7	"	100		82.5	39-135	2.08	200	
Diethyl phthalate	59.0	1.9	"	100		59.0	1-114	40.3	200	
Dimethyl phthalate	19.8	1.6	"	100		19.8	1-112	103	200	
2,4-Dimethylphenol	52.2	2.7	"	100		52.2	32-119	0.115	200	
Di-n-butyl phthalate	86.2	2.5	"	100		86.2	1-118	11.1	200	
4,6-Dinitro-2-methylphenol	126	24	"	100		126	1-181	1.76	200	
2,4-Dinitrophenol	109	42	"	100		109	1-191	1.87	200	
2,4-Dinitrotoluene	102	5.7	"	100		102	39-139	2.83	200	
Fluoranthene	100	2.2	"	100		100	26-137	2.10	200	
Fluorene	89.2	1.9	"	100		89.2	59-121	3.89	200	
Hexachlorobenzene	88.6	1.9	"	100		88.6	1-152	1.35	200	
Hexachlorobutadiene	59.2	0.90	"	100		59.2	24-116	1.89	200	
Hexachloroethane	55.0	1.6	"	100		55.0	40-113	1.80	200	
Indeno (1,2,3-cd) pyrene	103	3.7	"	100		103	1-171	8.72	200	
Isophorone	80.5	2.2	"	100		80.5	21-196	0.536	200	
Naphthalene	70.9	1.6	"	100		70.9	21-133	1.19	200	
Nitrobenzene	75.3	1.9	"	100		75.3	35-180	1.04	200	
2-Nitrophenol	80.9	3.6	"	100		80.9	29-182	0.173	200	
4-Nitrophenol	59.5	2.4	"	100		59.5	1-132	4.03	200	
N-Nitrosodi-n-propylamine	81.5	10	"	100		81.5	1-230	1.91	200	
Pentachlorophenol	124	3.6	"	100		124	14-176	1.24	200	
Phenanthrene	93.4	5.4	"	100		93.4	54-120	1.34	200	
Phenol	32.4	1.5	"	100		32.4	5-112	4.90	200	
Pyrene	89.9	1.9	"	100		89.9	52-115	6.95	200	
2,4,6-Trichlorophenol	89.5	2.7	"	100		89.5	37-144	2.24	200	
Matrix Spike (0J15014-MS1)	Source: 1010056-02			Prepared: 10/15/10 Analyzed: 10/21/10						
Surrogate: 2-Fluorophenol	*44.8*		*ug/l*	*100*		*44.8*	*21-110*			
Surrogate: Phenol-d6	*65.3*		"	*100*		*65.3*	*10-110*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Matrix Spike (0J15014-MS1)		**Source: 1010056-02**		**Prepared: 10/15/10**		**Analyzed: 10/21/10**				
Surrogate: Nitrobenzene-d5	*35.4*		*ug/l*	*50.0*		*70.7*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*37.7*		"	*50.0*		*75.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*106*		"	*100*		*106*	*10-123*			
Surrogate: Terphenyl-d14	*48.5*		"	*50.0*		*97.1*	*33-141*			
Surrogate: 2-Fluorophenol	*44.8*		"	*100*		*44.8*	*21-110*			
Surrogate: Phenol-d6	*65.3*		"	*100*		*65.3*	*10-110*			
Surrogate: Nitrobenzene-d5	*35.4*		"	*50.0*		*70.7*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*37.7*		"	*50.0*		*75.4*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*106*		"	*100*		*106*	*10-123*			
Surrogate: Terphenyl-d14	*48.5*		"	*50.0*		*97.1*	*33-141*			
Acenaphthene	85.4	1.9	"	100	ND	85.4	47-145			
Acenaphthylene	85.0	3.5	"	100	ND	85.0	33-145			
Phenol	47.2	1.5	"	100	ND	47.2	5-112			
2-Chlorophenol	64.9	3.3	"	100	ND	64.9	23-134			
Anthracene	95.3	1.9	"	100	ND	95.3	27-133			
1,4-Dichlorobenzene	49.5	4.4	"	100	ND	49.5	20-124			
Nitrobenzene	73.2	1.9	"	100	ND	73.2	35-180			
2-Nitrophenol	79.0	3.6	"	100	ND	79.0	29-182			
Benzo (a) anthracene	95.7	7.8	"	100	ND	95.7	33-143			
2,4-Dimethylphenol	54.4	2.7	"	100	ND	54.4	32-119			
Benzo (a) pyrene	95.1	7.8	"	100	ND	95.1	17-163			
2,4-Dichlorophenol	79.8	2.7	"	100	ND	79.8	39-135			
Benzo (b) fluoranthene	95.1	4.8	"	100	ND	95.1	24-159			
4-Chloro-3-methylphenol	94.4	3.0	"	100	ND	94.4	22-147			
Benzo (g,h,i) perylene	94.5	4.1	"	100	ND	94.5	1-219			
2,4,6-Trichlorophenol	88.1	2.7	"	100	ND	88.1	37-144			
Benzo (k) fluoranthene	92.0	2.5	"	100	ND	92.0	11-162			
Bis(2-chloroethoxy)methane	73.7	5.3	"	100	ND	73.7	33-184			
2,4-Dinitrophenol	121	42	"	100	ND	121	10-191			
4-Nitrophenol	78.0	2.4	"	100	ND	78.0	10-132			
Bis(2-chloroethyl)ether	63.8	5.7	"	100	ND	63.8	12-158			
4,6-Dinitro-2-methylphenol	130	24	"	100	ND	130	10-181			
Bis(2-chloroisopropyl)ether	72.1	5.7	"	100	ND	72.1	36-166			
Bis(2-ethylhexyl)phthalate	94.4	2.5	"	100	ND	94.4	8-158			
Azobenzene	88.7	10	"	100	ND	88.7	10-120			
4-Chloro-3-methylphenol	94.4	3.0	"	100	ND	94.4	22-147			

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Batch 0J15014 - EPA 3510C

Matrix Spike (0J15014-MS1) Source: 1010056-02 Prepared: 10/15/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Pentachlorophenol	125	3.6	ug/l	100	ND	125	14-176			
2-Chlorophenol	64.9	3.3	"	100	ND	64.9	23-134			
Chrysene	96.3	2.5	"	100	ND	96.3	17-168			
Dibenz (a,h) anthracene	102	2.5	"	100	ND	102	1-227			
1,4-Dichlorobenzene	49.5	4.4	"	100	ND	49.5	20-124			
3,3'-Dichlorobenzidine	143	16	"	100	ND	143	1-262			
2,4-Dichlorophenol	79.8	2.7	"	100	ND	79.8	39-135			
Diethyl phthalate	100	1.9	"	100	ND	100	1-114			
Dimethyl phthalate	91.7	1.6	"	100	ND	91.7	1-112			
2,4-Dimethylphenol	54.4	2.7	"	100	ND	54.4	32-119			
Di-n-butyl phthalate	103	2.5	"	100	ND	103	1-118			
4,6-Dinitro-2-methylphenol	130	24	"	100	ND	130	1-181			
2,4-Dinitrophenol	121	42	"	100	ND	121	1-191			
2,4-Dinitrotoluene	114	5.7	"	100	ND	114	39-139			
Fluoranthene	112	2.2	"	100	ND	112	26-137			
Fluorene	92.9	1.9	"	100	ND	92.9	59-121			
Hexachlorobenzene	85.1	1.9	"	100	ND	85.1	1-152			
Hexachlorobutadiene	48.4	0.90	"	100	ND	48.4	24-116			
Hexachloroethane	43.4	1.6	"	100	ND	43.4	40-113			
Indeno (1,2,3-cd) pyrene	101	3.7	"	100	ND	101	1-171			
Isophorone	81.2	2.2	"	100	ND	81.2	21-196			
Naphthalene	66.3	1.6	"	100	ND	66.3	21-133			
Nitrobenzene	73.2	1.9	"	100	ND	73.2	35-180			
2-Nitrophenol	79.0	3.6	"	100	ND	79.0	29-182			
4-Nitrophenol	78.0	2.4	"	100	ND	78.0	1-132			
N-Nitrosodi-n-propylamine	81.4	10	"	100	ND	81.4	1-230			
Pentachlorophenol	125	3.6	"	100	ND	125	14-176			
Phenanthrene	94.5	5.4	"	100	ND	94.5	54-120			
Phenol	47.2	1.5	"	100	ND	47.2	5-112			
Pyrene	96.9	1.9	"	100	ND	96.9	52-115			
2,4,6-Trichlorophenol	88.1	2.7	"	100	ND	88.1	37-144			

Matrix Spike Dup (0J15014-MSD1) Source: 1010056-02 Prepared: 10/15/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2-Fluorophenol	*40.4*		*ug/l*	*99.0*		*40.8*	*21-110*			
Surrogate: Phenol-d6	*61.8*		*"*	*99.0*		*62.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*35.1*		*"*	*49.5*		*70.9*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*37.2*		*"*	*49.5*		*75.1*	*43-116*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Matrix Spike Dup (0J15014-MSD1)	**Source: 1010056-02**			**Prepared: 10/15/10 Analyzed: 10/21/10**						
Surrogate: 2,4,6-Tribromophenol	*102*		*ug/l*	*99.0*		*103*	*10-123*			
Surrogate: Terphenyl-d14	*44.6*		"	*49.5*		*90.1*	*33-141*			
Surrogate: 2-Fluorophenol	*40.4*		"	*99.0*		*40.8*	*21-110*			
Surrogate: Phenol-d6	*61.8*		"	*99.0*		*62.4*	*10-110*			
Surrogate: Nitrobenzene-d5	*35.1*		"	*49.5*		*70.9*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*37.2*		"	*49.5*		*75.1*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*102*		"	*99.0*		*103*	*10-123*			
Surrogate: Terphenyl-d14	*44.6*		"	*49.5*		*90.1*	*33-141*			
Acenaphthene	81.7	1.9	"	99.0	ND	82.6	47-145	4.40	200	
Phenol	44.9	1.5	"	99.0	ND	45.3	5-112	5.12	200	
Acenaphthylene	81.5	3.5	"	99.0	ND	82.3	33-145	4.22	200	
2-Chlorophenol	62.5	3.3	"	99.0	ND	63.1	23-134	3.75	200	
Anthracene	93.1	1.9	"	99.0	ND	94.0	27-133	2.30	200	
1,4-Dichlorobenzene	47.9	4.4	"	99.0	ND	48.3	20-124	3.35	200	
Nitrobenzene	73.4	1.9	"	99.0	ND	74.1	35-180	0.267	200	
Benzo (a) anthracene	92.1	7.8	"	99.0	ND	93.1	33-143	3.74	200	
2-Nitrophenol	79.0	3.6	"	99.0	ND	79.8	29-182	0.0503	200	
2,4-Dimethylphenol	53.3	2.7	"	99.0	ND	53.9	32-119	1.94	200	
Benzo (a) pyrene	90.6	7.8	"	99.0	ND	91.5	17-163	4.85	200	
Benzo (b) fluoranthene	92.5	4.8	"	99.0	ND	93.4	24-159	2.85	200	
2,4-Dichlorophenol	79.5	2.7	"	99.0	ND	80.3	39-135	0.383	200	
4-Chloro-3-methylphenol	91.3	3.0	"	99.0	ND	92.2	22-147	3.39	200	
Benzo (g,h,i) perylene	85.4	4.1	"	99.0	ND	86.2	1-219	10.1	200	
Benzo (k) fluoranthene	85.4	2.5	"	99.0	ND	86.2	11-162	7.47	200	
2,4,6-Trichlorophenol	87.6	2.7	"	99.0	ND	88.4	37-144	0.587	200	
2,4-Dinitrophenol	118	42	"	99.0	ND	119	10-191	3.18	200	
Bis(2-chloroethoxy)methane	74.1	5.3	"	99.0	ND	74.8	33-184	0.541	200	
Bis(2-chloroethyl)ether	63.6	5.7	"	99.0	ND	64.2	12-158	0.323	200	
4-Nitrophenol	68.1	2.4	"	99.0	ND	68.8	10-132	13.5	200	
Bis(2-chloroisopropyl)ether	72.8	5.7	"	99.0	ND	73.6	36-166	1.06	200	
4,6-Dinitro-2-methylphenol	125	24	"	99.0	ND	126	10-181	3.50	200	
Azobenzene	87.0	10	"	99.0	ND	87.8	10-120	1.94	200	
Bis(2-ethylhexyl)phthalate	88.3	2.5	"	99.0	ND	89.2	8-158	6.72	200	
4-Chloro-3-methylphenol	91.3	3.0	"	99.0	ND	92.2	22-147	3.39	200	
Pentachlorophenol	122	3.6	"	99.0	ND	123	14-176	2.13	200	
2-Chlorophenol	62.5	3.3	"	99.0	ND	63.1	23-134	3.75	200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Matrix Spike Dup (0J15014-MSD1)	**Source: 1010056-02**			Prepared: 10/15/10	Analyzed: 10/21/10					
Chrysene	95.2	2.5	ug/l	99.0	ND	96.2	17-168	1.08	200	
Dibenz (a,h) anthracene	97.7	2.5	"	99.0	ND	98.6	1-227	4.38	200	
1,4-Dichlorobenzene	47.9	4.4	"	99.0	ND	48.3	20-124	3.35	200	
3,3'-Dichlorobenzidine	140	16	"	99.0	ND	141	1-262	2.14	200	
2,4-Dichlorophenol	79.5	2.7	"	99.0	ND	80.3	39-135	0.383	200	
Diethyl phthalate	97.2	1.9	"	99.0	ND	98.2	1-114	2.89	200	
Dimethyl phthalate	90.4	1.6	"	99.0	ND	91.3	1-112	1.34	200	
2,4-Dimethylphenol	53.3	2.7	"	99.0	ND	53.9	32-119	1.94	200	
Di-n-butyl phthalate	95.8	2.5	"	99.0	ND	96.7	1-118	7.06	200	
4,6-Dinitro-2-methylphenol	125	24	"	99.0	ND	126	1-181	3.50	200	
2,4-Dinitrophenol	118	42	"	99.0	ND	119	1-191	3.18	200	
2,4-Dinitrotoluene	109	5.7	"	99.0	ND	111	39-139	4.12	200	
Fluoranthene	105	2.2	"	99.0	ND	106	26-137	6.51	200	
Fluorene	90.3	1.9	"	99.0	ND	91.2	59-121	2.92	200	
Hexachlorobenzene	83.2	1.9	"	99.0	ND	84.0	1-152	2.25	200	
Hexachlorobutadiene	47.5	0.90	"	99.0	ND	48.0	24-116	1.85	200	
Hexachloroethane	41.0	1.6	"	99.0	ND	41.4	40-113	5.78	200	
Indeno (1,2,3-cd) pyrene	92.2	3.7	"	99.0	ND	93.1	1-171	8.78	200	
Isophorone	80.9	2.2	"	99.0	ND	81.7	21-196	0.320	200	
Naphthalene	65.4	1.6	"	99.0	ND	66.1	21-133	1.27	200	
Nitrobenzene	73.4	1.9	"	99.0	ND	74.1	35-180	0.267	200	
2-Nitrophenol	79.0	3.6	"	99.0	ND	79.8	29-182	0.0503	200	
4-Nitrophenol	68.1	2.4	"	99.0	ND	68.8	1-132	13.5	200	
N-Nitrosodi-n-propylamine	80.4	10	"	99.0	ND	81.2	1-230	1.23	200	
Pentachlorophenol	122	3.6	"	99.0	ND	123	14-176	2.13	200	
Phenanthrene	90.0	5.4	"	99.0	ND	90.9	54-120	4.93	200	
Phenol	44.9	1.5	"	99.0	ND	45.3	5-112	5.12	200	
Pyrene	89.6	1.9	"	99.0	ND	90.5	52-115	7.79	200	
2,4,6-Trichlorophenol	87.6	2.7	"	99.0	ND	88.4	37-144	0.587	200	
Reference (0J15014-SRM1)				Prepared: 10/15/10	Analyzed: 10/21/10					
Surrogate: 2-Fluorophenol	*42.0*		*ug/l*	*100*		*42.0*	*21-110*			
Surrogate: Phenol-d6	*48.6*		"	*100*		*48.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*40.9*		"	*50.0*		*81.8*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*41.9*		"	*50.0*		*83.8*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*117*		"	*100*		*117*	*10-123*			
Surrogate: Terphenyl-d14	*50.9*		"	*50.0*		*102*	*33-141*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J15014 - EPA 3510C										
Reference (0J15014-SRM1)				Prepared: 10/15/10 Analyzed: 10/21/10						
Surrogate: 2-Fluorophenol	*42.0*		*ug/l*	*100*		*42.0*	*21-110*			
Surrogate: Phenol-d6	*48.6*		"	*100*		*48.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*40.9*		"	*50.0*		*81.8*	*35-114*			
Surrogate: 2-Fluorobiphenyl	*41.9*		"	*50.0*		*83.8*	*43-116*			
Surrogate: 2,4,6-Tribromophenol	*117*		"	*100*		*117*	*10-123*			
Surrogate: Terphenyl-d14	*50.9*		"	*50.0*		*102*	*33-141*			
Batch 0J18007 - General Preparation										
Blank (0J18007-BLK1)				Prepared: 10/18/10 Analyzed: 10/19/10						
Ammonia as N	313	50	ug/l							
LCS (0J18007-BS1)				Prepared: 10/18/10 Analyzed: 10/19/10						
Ammonia as N	1900	50	ug/l	2000		95.2	80-120			
Matrix Spike (0J18007-MS1)	Source: 1010061-03			Prepared: 10/18/10 Analyzed: 10/19/10						
Ammonia as N	3200	50	ug/l	2000	894	116	75-125			
Matrix Spike Dup (0J18007-MSD1)	Source: 1010061-03			Prepared: 10/18/10 Analyzed: 10/19/10						
Ammonia as N	3170	50	ug/l	2000	894	114	75-125	0.959	20	
Batch 0J19015 - No Prep. - Sub.										
Blank (0J19015-BLK1)				Prepared: 10/19/10 Analyzed: 10/20/10						
Cyanide (total)	ND	5.0	ug/l							
LCS (0J19015-BS1)				Prepared: 10/19/10 Analyzed: 10/20/10						
Cyanide (total)	300	5.0	ug/l	300		100	80-120			
Matrix Spike (0J19015-MS1)	Source: 1010026-02			Prepared: 10/19/10 Analyzed: 10/20/10						
Cyanide (total)	213	5.0	ug/l	300	ND	71.0	75-125			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J19015 - No Prep. - Sub.										
Matrix Spike (0J19015-MS1)	**Source: 1010026-02**			**Prepared: 10/19/10**	**Analyzed: 10/20/10**					
Matrix Spike (0J19015-MS2)	**Source: 1010056-02**			**Prepared: 10/19/10**	**Analyzed: 10/20/10**					
Cyanide (total)	248	5.0	ug/l	300	ND	82.7	75-125			
Matrix Spike Dup (0J19015-MSD1)	**Source: 1010026-02**			**Prepared: 10/19/10**	**Analyzed: 10/20/10**					
Cyanide (total)	221	5.0	ug/l	300	ND	73.7	75-125	3.69	20	
Matrix Spike Dup (0J19015-MSD2)	**Source: 1010056-02**			**Prepared: 10/19/10**	**Analyzed: 10/20/10**					
Cyanide (total)	248	5.0	ug/l	300	ND	82.7	75-125	0.00	20	
Batch 0J20001 - No Prep. GC/MS										
Blank (0J20001-BLK1)				**Prepared: 10/20/10**	**Analyzed: 10/21/10**					
Surrogate: Dibromofluoromethane	*55.2*		*ug/l*	*50.0*		*110*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*49.2*		*"*	*50.0*		*98.5*	*80-120*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.9*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*53.4*		*"*	*50.0*		*107*	*86-115*			
Surrogate: Dibromofluoromethane	*55.2*		*"*	*50.0*		*110*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*49.2*		*"*	*50.0*		*98.5*	*80-120*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.9*	*88-117*			
Surrogate: 4-Bromofluorobenzene	*53.4*		*"*	*50.0*		*107*	*86-115*			
Acrolein	ND	100	"							
1,1-Dichloroethene	ND	2.8	"							
Acrylonitrile	ND	50	"							
Methylene chloride	ND	18	"							
Chloroform	ND	1.6	"							
Benzene	ND	4.4	"							
Bromodichloromethane	ND	2.2	"							
1,1,1-Trichloroethane	ND	3.8	"							
1,2-Dichloroethane	ND	2.8	"							
Bromoform	ND	4.7	"							
Benzene	ND	4.4	"							
Bromomethane	ND	5.0	"							

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
Blank (0J20001-BLK1)				Prepared: 10/20/10 Analyzed: 10/21/10						
Trichloroethene	ND	1.9	ug/l							
Carbon tetrachloride	ND	2.8	"							
Toluene	ND	6.0	"							
Chlorobenzene	ND	6.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Chloroform	ND	1.6	"							
Chloromethane	ND	5.0	"							
Tetrachloroethene	ND	4.1	"							
Chlorobenzene	ND	6.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
Dibromochloromethane	ND	3.1	"							
Ethylbenzene	ND	7.2	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
1,2-Dichloroethane	ND	2.8	"							
1,1-Dichloroethene	ND	2.8	"							
Ethylbenzene	ND	7.2	"							
Methylene chloride	ND	18	"							
1,1,2,2-Tetrachloroethane	ND	6.9	"							
Tetrachloroethene	ND	4.1	"							
Toluene	ND	6.0	"							
1,1,1-Trichloroethane	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	1.9	"							
Vinyl chloride	ND	5.0	"							
LCS (0J20001-BS1)				Prepared: 10/20/10 Analyzed: 10/21/10						
Surrogate: Dibromofluoromethane	*55.4*		*ug/l*	*50.0*		*111*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		"	*50.0*		*97.5*	*80-120*			
Surrogate: Toluene-d8	*51.3*		"	*50.0*		*103*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*50.6*		"	*50.0*		*101*	*86-115*			
Surrogate: Dibromofluoromethane	*55.4*		"	*50.0*		*111*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		"	*50.0*		*97.5*	*80-120*			
Surrogate: Toluene-d8	*51.3*		"	*50.0*		*103*	*88-117*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
LCS (0J20001-BS1)				Prepared: 10/20/10	Analyzed: 10/21/10					
Surrogate. 4-Bromofluorobenzene	*50.6*		*ug/l*	*50.0*		*101*	*86-115*			
1,1-Dichloroethene	31.4	2.8	"	20.0		157	1-234			
Methylene chloride	36.4	18	"	20.0		182	1-221			
Chloroform	24.5	1.6	"	20.0		122	51-138			
Benzene	18.3	4.4	"	20.0		91.4	37-151			
1,1,1-Trichloroethane	24 2	3.8	"	20.0		121	52-162			
Bromodichloromethane	23 0	2.2	"	20.0		115	35-155			
1,2-Dichloroethane	27.0	2.8	"	20.0		135	49-155			
Bromoform	18.9	4.7	"	20.0		94.6	45-169			
Benzene	18.3	4.4	"	20.0		91.4	37-151			
Bromomethane	31.3	5.0	"	20.0		157	1-242			
Trichloroethene	17.9	1.9	"	20.0		89.6	71-157			
Carbon tetrachloride	24.3	2.8	"	20.0		122	70-140			
Toluene	18.8	6.0	"	20.0		94.1	47-150			
Chlorobenzene	20.4	6.0	"	20.0		102	37-160			
Chloroform	24.5	1.6	"	20.0		122	51-138			
1,1,2-Trichloroethane	20.4	5.0	"	20.0		102	52-150			
Tetrachloroethene	18 1	4.1	"	20.0		90.4	64-148			
Chloromethane	34 5	5.0	"	20.0		173	1-273			
cis-1,3-Dichloropropene	17.0	5.0	"	20.0		85.0	1-227			
Chlorobenzene	20.4	6.0	"	20.0		102	37-160			
Dibromochloromethane	18.0	3.1	"	20.0		90.0	53-149			
Ethylbenzene	21.1	7.2	"	20 0		106	37-162			
1,2-Dichlorobenzene	17.4	5.0	"	20.0		87.0	18-190			
1,3-Dichlorobenzene	16.6	5.0	"	20.0		82.8	59-156			
1,3-Dichlorobenzene	16.6	5.0	"	20.0		82 8	59-156			
1,2-Dichlorobenzene	17.4	5.0	"	20.0		87 0	18-190			
1,4-Dichlorobenzene	18.9	5.0	"	20.0		94 6	18-190			
1,2-Dichloroethane	27.0	2.8	"	20.0		135	49-155			
1,1-Dichloroethene	31.4	2.8	"	20.0		157	1-234			
Ethylbenzene	21.1	7.2	"	20.0		106	37-162			
Methylene chloride	36.4	18	"	20.0		182	1-221			
1,1,2,2-Tetrachloroethane	19.0	6.9	"	20.0		94.9	46-157			
Tetrachloroethene	18.1	4.1	"	20.0		90.4	64-148			
Toluene	18.8	6.0	"	20.0		94.1	47-150			
1,1,1-Trichloroethane	24.2	3.8	"	20.0		121	52-162			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
LCS (0J20001-BS1)				Prepared: 10/20/10	Analyzed: 10/21/10					
1,1,2-Trichloroethane	20.4	5.0	ug/l	20.0		102	52-150			
Trichloroethene	17.9	1.9	"	20.0		89.6	71-157			
Vinyl chloride	32.3	5.0	"	20.0		162	1-251			
LCS Dup (0J20001-BSD1)				Prepared: 10/20/10	Analyzed: 10/21/10					
Surrogate: Dibromofluoromethane	*54.9*		*ug/l*	*50.0*		*110*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*51.0*		*"*	*50.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*51.5*		*"*	*50.0*		*103*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*50.6*		*"*	*50.0*		*101*	*86-115*			
Surrogate: Dibromofluoromethane	*54.9*		*"*	*50.0*		*110*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*51.0*		*"*	*50.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*51.5*		*"*	*50.0*		*103*	*88-117*			
Surrogate: 4-Bromofluorobenzene	*50.6*		*"*	*50.0*		*101*	*86-115*			
1,1-Dichloroethene	31.8	2.8	"	20.0		159	1-234	1.45	200	
Methylene chloride	39.3	18	"	20.0		196	1-221	7.69	200	
Benzene	18.7	4.4	"	20.0		93.3	37-151	2.11	200	
Chloroform	24.1	1.6	"	20.0		120	51-138	1.73	200	
1,1,1-Trichloroethane	24.0	3.8	"	20.0		120	52-162	0.706	200	
Bromodichloromethane	23.2	2.2	"	20.0		116	35-155	1.04	200	
1,2-Dichloroethane	27.4	2.8	"	20.0		137	49-155	1.73	200	
Bromoform	19.6	4.7	"	20.0		98.2	45-169	3.68	200	
Bromomethane	30.9	5.0	"	20.0		154	1-242	1.48	200	
Benzene	18.7	4.4	"	20.0		93.3	37-151	2.11	200	
Carbon tetrachloride	24.1	2.8	"	20.0		120	70-140	0.868	200	
Trichloroethene	18.0	1.9	"	20.0		90.0	71-157	0.390	200	
Toluene	19.1	6.0	"	20.0		95.5	47-150	1.48	200	
Chlorobenzene	20.1	6.0	"	20.0		100	37-160	1.78	200	
1,1,2-Trichloroethane	20.9	5.0	"	20.0		105	52-150	2.66	200	
Chloroform	24.1	1.6	"	20.0		120	51-138	1.73	200	
Tetrachloroethene	18.0	4.1	"	20.0		90.0	64-148	0.333	200	
Chloromethane	29.4	5.0	"	20.0		147	1-273	16.2	200	
cis-1,3-Dichloropropene	17.1	5.0	"	20.0		85.4	1-227	0.528	200	
Chlorobenzene	20.1	6.0	"	20.0		100	37-160	1.78	200	
Dibromochloromethane	18.6	3.1	"	20.0		93.0	53-149	3.28	200	
Ethylbenzene	21.1	7.2	"	20.0		105	37-162	0.284	200	
1,2-Dichlorobenzene	17.6	5.0	"	20.0		88.2	18-190	1.37	200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
LCS Dup (0J20001-BSD1)				Prepared: 10/20/10 Analyzed: 10/21/10						
1,3-Dichlorobenzene	16.2	5.0	ug/l	20.0		80.9	59-156	2.26	200	
1,3-Dichlorobenzene	16.2	5.0	"	20.0		80.9	59-156	2.26	200	
1,2-Dichlorobenzene	17.6	5.0	"	20.0		88.2	18-190	1.37	200	
1,4-Dichlorobenzene	19.2	5.0	"	20.0		96.0	18-190	1.52	200	
1,2-Dichloroethane	27.4	2.8	"	20.0		137	49-155	1.73	200	
1,1-Dichloroethene	31.8	2.8	"	20.0		159	1-234	1.45	200	
Ethylbenzene	21.1	7.2	"	20.0		105	37-162	0.284	200	
Methylene chloride	39.3	18	"	20.0		196	1-221	7.69	200	
1,1,2,2-Tetrachloroethane	19.5	6.9	"	20.0		97.4	46-157	2.55	200	
Tetrachloroethene	18.0	4.1	"	20.0		90.0	64-148	0.333	200	
Toluene	19.1	6.0	"	20.0		95.5	47-150	1.48	200	
1,1,1-Trichloroethane	24.0	3.8	"	20.0		120	52-162	0.706	200	
1,1,2-Trichloroethane	20.9	5.0	"	20.0		105	52-150	2.66	200	
Trichloroethene	18.0	1.9	"	20.0		90.0	71-157	0.390	200	
Vinyl chloride	31.5	5.0	"	20.0		157	1-251	2.70	200	
Matrix Spike (0J20001-MS1)		Source: 1010056-01		Prepared: 10/20/10 Analyzed: 10/21/10						
Surrogate: Dibromofluoromethane	*53.0*		*ug/l*	*50.0*		*106*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*44.0*		"	*50.0*		*88.1*	*80-120*			
Surrogate: Toluene-d8	*51.4*		"	*50.0*		*103*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*49.9*		"	*50.0*		*99.8*	*86-115*			
Surrogate: Dibromofluoromethane	*53.0*		"	*50.0*		*106*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*44.0*		"	*50.0*		*88.1*	*80-120*			
Surrogate: Toluene-d8	*51.4*		"	*50.0*		*103*	*88-117*			
Surrogate: 4-Bromofluorobenzene	*49.9*		"	*50.0*		*99.8*	*86-115*			
1,1-Dichloroethene	30.6	2.8	"	20.0	ND	153	1-234			
Methylene chloride	37.3	18	"	20.0	ND	186	1-221			
Chloroform	23.2	1.6	"	20.0	ND	116	51-138			
Benzene	18.2	4.4	"	20.0		90.8	37-151			
Bromodichloromethane	22.4	2.2	"	20.0		112	35-155			
1,1,1-Trichloroethane	23.3	3.8	"	20.0	ND	116	52-162			
Bromoform	15.2	4.7	"	20.0		76.0	45-169			
1,2-Dichloroethane	23.8	2.8	"	20.0	ND	119	49-155			
Bromomethane	31.6	5.0	"	20.0		158	1-242			
Benzene	18.2	4.4	"	20.0	ND	90.8	37-151			
Trichloroethene	17.4	1.9	"	20.0	ND	87.2	71-157			

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Batch 0J20001 - No Prep. GC/MS

Matrix Spike (0J20001-MS1) Source: 1010056-01 Prepared: 10/20/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Carbon tetrachloride	23.6	2.8	ug/l	20.0		118	70-140			
Toluene	18.7	6.0	"	20.0	ND	93.7	47-150			
Chlorobenzene	20.0	6.0	"	20.0		100	37-160			
Chloroform	23.2	1.6	"	20.0		116	51-138			
1,1,2-Trichloroethane	17.5	5.0	"	20.0	ND	87:3	52-150			
Tetrachloroethene	17.6	4.1	"	20.0	ND	88.2	64-148			
Chloromethane	32.7	5.0	"	20.0		163	1-273			
cis-1,3-Dichloropropene	13.4	5.0	"	20.0		67.0	1-227			
Chlorobenzene	20.0	6.0	"	20.0	ND	100	37-160			
Ethylbenzene	21.0	7.2	"	20.0	ND	105	37-162			
Dibromochloromethane	16 0	3.1	"	20.0		80.2	53-149			
1,2-Dichlorobenzene	17 2	5.0	"	20.0		86.0	18-190			
1,3-Dichlorobenzene	16.4	5.0	"	20.0	ND	81.9	59-156			
1,2-Dichlorobenzene	17.2	5.0	"	20.0	ND	86.0	18-190			
1,3-Dichlorobenzene	16.4	5.0	"	20.0		81.9	59-156			
1,4-Dichlorobenzene	19.1	5.0	"	20.0		95.4	18-190			
1,2-Dichloroethane	23.8	2.8	"	20.0		119	49-155			
1,1-Dichloroethene	30.6	2.8	"	20.0		153	1-234			
Ethylbenzene	21.0	7.2	"	20.0		105	37-162			
Methylene chloride	37.3	18	"	20.0		186	1-221			
1,1,2,2-Tetrachloroethane	14.4	6.9	"	20.0		71.8	46-157			
Tetrachloroethene	17.6	4.1	"	20.0		88.2	64-148			
Toluene	18.7	6.0	"	20.0		93.7	47-150			
1,1,1-Trichloroethane	23.3	3.8	"	20.0		116	52-162			
1,1,2-Trichloroethane	17.5	5.0	"	20.0		87.3	52-150			
Trichloroethene	17.4	1.9	"	20.0		87.2	71-157			
Vinyl chloride	33.1	5.0	"	20.0		165	1-251			

Matrix Spike Dup (0J20001-MSD1) Source: 1010056-01 Prepared: 10/20/10 Analyzed: 10/21/10

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*53.8*		*ug/l*	*50.0*		*108*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*43.4*		"	*50.0*		*86.7*	*80-120*			
Surrogate: Toluene-d8	*50.3*		"	*50.0*		*101*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*50.0*		"	*50.0*		*100*	*86-115*			
Surrogate: Dibromofluoromethane	*53.8*		"	*50.0*		*108*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*43.4*		"	*50.0*		*86.7*	*80-120*			
Surrogate: Toluene-d8	*50.3*		"	*50.0*		*101*	*88-117*			
Surrogate: 4-Bromofluorobenzene	*50.0*		"	*50.0*		*100*	*86-115*			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
Matrix Spike Dup (0J20001-MSD1)		Source: 1010056-01		Prepared: 10/20/10 Analyzed: 10/21/10						
1,1-Dichloroethene	28.9	2.8	ug/l	20.0	ND	145	1-234	5.58	200	
Methylene chloride	36.8	18	"	20.0	ND	184	1-221	1.32	200	
Benzene	17.2	4.4	"	20.0		86.0	37-151	5.49	200	
Chloroform	23.2	1.6	"	20.0	ND	116	51-138	0.0431	200	
1,1,1-Trichloroethane	22.1	3.8	"	20.0	ND	110	52-162	5.42	200	
Bromodichloromethane	21.5	2.2	"	20.0		108	35-155	4.23	200	
1,2-Dichloroethane	23.2	2.8	"	20.0	ND	116	49-155	2.26	200	
Bromoform	15.1	4.7	"	20.0		75.5	45-169	0.594	200	
Benzene	17.2	4.4	"	20.0	ND	86.0	37-151	5.49	200	
Bromomethane	29.0	5.0	"	20.0		145	1-242	8.72	200	
Carbon tetrachloride	21.9	2.8	"	20.0		110	70-140	7.46	200	
Trichloroethene	16.4	1.9	"	20.0	ND	82.0	71-157	6.09	200	
Toluene	17.7	6.0	"	20.0	ND	88.3	47-150	5.93	200	
Chlorobenzene	19.6	6.0	"	20.0		97.9	37-160	2.37	200	
Chloroform	23.2	1.6	"	20.0		116	51-138	0.0431	200	
1,1,2-Trichloroethane	16.7	5.0	"	20.0	ND	83.7	52-150	4.21	200	
Tetrachloroethene	16.4	4.1	"	20.0	ND	82.2	64-148	7.10	200	
Chloromethane	28.9	5.0	"	20.0		144	1-273	12.3	200	
Chlorobenzene	19.6	6.0	"	20.0	ND	97.9	37-160	2.37	200	
cis-1,3-Dichloropropene	12.3	5.0	"	20.0		61.7	1-227	8.16	200	
Dibromochloromethane	15.6	3.1	"	20.0		78.2	53-149	2.53	200	
Ethylbenzene	20.2	7.2	"	20.0	ND	101	37-162	3.59	200	
1,2-Dichlorobenzene	17.1	5.0	"	20.0		85.3	18-190	0.759	200	
1,3-Dichlorobenzene	15.8	5.0	"	20.0	ND	79.2	59-156	3.35	200	
1,2-Dichlorobenzene	17.1	5.0	"	20.0	ND	85.3	18-190	0.759	200	
1,3-Dichlorobenzene	15.8	5.0	"	20.0		79.2	59-156	3.35	200	
1,4-Dichlorobenzene	18.6	5.0	"	20.0		93.2	18-190	2.33	200	
1,2-Dichloroethane	23.2	2.8	"	20.0		116	49-155	2.26	200	
1,1-Dichloroethene	28.9	2.8	"	20.0		145	1-234	5.58	200	
Ethylbenzene	20.2	7.2	"	20.0		101	37-162	3.59	200	
Methylene chloride	36.8	18	"	20.0		184	1-221	1.32	200	
1,1,2,2-Tetrachloroethane	14.6	6.9	"	20.0		73.2	46-157	1.93	200	
Tetrachloroethene	16.4	4.1	"	20.0		82.2	64-148	7.10	200	
Toluene	17.7	6.0	"	20.0		88.3	47-150	5.93	200	
1,1,1-Trichloroethane	22.1	3.8	"	20.0		110	52-162	5.42	200	
1,1,2-Trichloroethane	16.7	5.0	"	20.0		83.7	52-150	4.21	200	
Trichloroethene	16.4	1.9	"	20.0		82.0	71-157	6.09	200	

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
Matrix Spike Dup (0J20001-MSD1)	**Source: 1010056-01**			Prepared: 10/20/10 Analyzed: 10/21/10						
Vinyl chloride	29.1	5.0	ug/l	20.0		146	1-251	12.7	200	
Reference (0J20001-SRM1)				Prepared: 10/20/10 Analyzed: 10/21/10						
Surrogate: Dibromofluoromethane	*53.9*		*ug/l*	*50.0*		*108*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*48.5*		"	*50.0*		*97.0*	*80-120*			
Surrogate: Toluene-d8	*50.9*		"	*50.0*		*102*	*88-110*			
Surrogate: 4-Bromofluorobenzene	*49.8*		"	*50.0*		*99.7*	*86-115*			
Surrogate: Dibromofluoromethane	*53.9*		"	*50.0*		*108*	*86-118*			
Surrogate: 1,2-Dichloroethane-d4	*48.5*		"	*50.0*		*97.0*	*80-120*			
Surrogate: Toluene-d8	*50.9*		"	*50.0*		*102*	*88-117*			
Surrogate: 4-Bromofluorobenzene	*49.8*		"	*50.0*		*99.7*	*86-115*			
1,1-Dichloroethene	33.2	2.8	"	20.0		166	0-200			
Methylene chloride	39.8	18	"	20.0		199	0-200			
Benzene	20.3	4.4	"	20.0		102	0-200			
Chloroform	25.2	1.6	"	20.0		126	0-200			
1,1,1-Trichloroethane	25.7	3.8	"	20.0		128	0-200			
Bromodichloromethane	23.6	2.2	"	20.0		118	0-200			
1,2-Dichloroethane	26.2	2.8	"	20.0		131	0-200			
Bromoform	18.0	4.7	"	20.0		90.0	0-200			
Benzene	20.3	4.4	"	20.0		102	0-200			
Bromomethane	31.6	5.0	"	20.0		158	0-200			
Trichloroethene	19.4	1.9	"	20.0		96.9	0-200			
Carbon tetrachloride	25.9	2.8	"	20.0		129	0-200			
Toluene	20.1	6.0	"	20.0		100	0-200			
Chlorobenzene	21.5	6.0	"	20.0		107	0-200			
1,1,2-Trichloroethane	20.2	5.0	"	20.0		101	0-200			
Chloroform	25.2	1.6	"	20.0		126	0-200			
Tetrachloroethene	19.2	4.1	"	20.0		95.8	0-200			
Chloromethane	33.4	5.0	"	20.0		167	0-200			
cis-1,3-Dichloropropene	17.7	5.0	"	20.0		88.6	0-200			
Chlorobenzene	21.5	6.0	"	20.0		107	0-200			
Dibromochloromethane	18.2	3.1	"	20.0		90.8	0-200			
Ethylbenzene	22.9	7.2	"	20.0		114	0-200			
1,2-Dichlorobenzene	18.8	5.0	"	20.0		94.0	0-200			
1,3-Dichlorobenzene	16.6	5.0	"	20.0		82.8	0-200			
1,3-Dichlorobenzene	16.6	5.0	"	20.0		82.8	0-200			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20001 - No Prep. GC/MS										
Reference (0J20001-SRM1)				Prepared: 10/20/10 Analyzed: 10/21/10						
1,2-Dichlorobenzene	18.8	5.0	ug/l	20.0		94.0	0-200			
1,4-Dichlorobenzene	21.2	5.0	"	20.0		106	0-200			
1,2-Dichloroethane	26.2	2.8	"	20.0		131	0-200			
1,1-Dichloroethene	33.2	2.8	"	20.0		166	0-200			
Ethylbenzene	22.9	7.2	"	20.0		114	0-200			
Methylene chloride	39.8	18	"	20.0		199	0-200			
1,1,2,2-Tetrachloroethane	17.8	6.9	"	20.0		88.8	0-200			
Tetrachloroethene	19.2	4.1	"	20.0		95.8	0-200			
Toluene	20.1	6.0	"	20.0		100	0-200			
1,1,1-Trichloroethane	25.7	3.8	"	20.0		128	0-200			
1,1,2-Trichloroethane	20.2	5.0	"	20.0		101	0-200			
Trichloroethene	19.4	1.9	"	20.0		96.9	0-200			
Vinyl chloride	33.8	5.0	"	20.0		169	0-200			
Batch 0J20002 - 200.7/ No Digest										
Blank (0J20002-BLK1)				Prepared: 10/20/10 Analyzed: 10/22/10						
Selenium	ND	50	ug/l							
Zinc	ND	60	"							
Thallium	ND	0.10	mg/l							
Chromium	ND	0.020	"							
Antimony	ND	0.10	"							
Arsenic	ND	2.0	ug/l							
Copper	ND	0.50	"							
Beryllium	ND	0.010	mg/l							
LCS (0J20002-BS1)				Prepared: 10/20/10 Analyzed: 10/26/10						
Arsenic	1000	2.0	ug/l	1000		102	85-115			
Copper	972	0.50	"	1000		97.2	85-115			
Selenium	1100	50	"	1000		110	80-120			
Antimony	1.08	0.10	mg/l	1.00		108	80-120			
Thallium	1.14	0.10	"	1.00		114	80-120			
Chromium	1.06	0.020	"	1.00		106	80-120			
Beryllium	1.06	0.010	"	1.00		106	80-120			
Zinc	1100	60	ug/l	1000		110	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20002 - 200.7/ No Digest										
LCS (0J20002-BS1)				Prepared: 10/20/10 Analyzed: 10/22/10						
Matrix Spike (0J20002-MS1)	Source: 1010056-02			Prepared: 10/20/10 Analyzed: 10/22/10						
Antimony	0.784	0.10	mg/l	1.00	ND	78.4	75-125			
Beryllium	0.713	0.010	"	1.00	ND	71.3	75-125			QM-12
Arsenic	950	2.0	ug/l	1000	1.2	94.8	70-130			
Zinc	668	60	"	1000	ND	66.8	75-125			QM-12
Selenium	830	50	"	1000	ND	83.0	75-125			
Chromium	0.656	0.020	mg/l	1.00	ND	65.6	75-125			QM-12
Thallium	0.761	0.10	"	1.00	0.100	66.0	75-125			QM-12
Copper	890	0.50	ug/l	1000	0.598	89.0	70-130			
Matrix Spike Dup (0J20002-MSD1)	Source: 1010056-02			Prepared: 10/20/10 Analyzed: 10/26/10						
Copper	895	0.50	ug/l	1000	0.598	89.4	70-130	0.515	20	
Arsenic	940	2.0	"	1000	1.2	94.2	70-130	0.655	20	
Beryllium	0.742	0.010	mg/l	1.00	ND	74.2	75-125	4.04	20	QM-12
Chromium	0.699	0.020	"	1.00	ND	69.9	75-125	6.33	20	QM-12
Antimony	0.844	0.10	"	1.00	ND	84.4	75-125	7.30	20	
Thallium	0.808	0.10	"	1.00	0.100	70.8	75-125	6.08	20	QM-12
Selenium	893	50	ug/l	1000	ND	89.3	75-125	7.39	20	
Zinc	707	60	"	1000	ND	70.7	75-125	5.64	20	QM-12
Batch 0J20004 - EPA 3005A										
Blank (0J20004-BLK1)				Prepared: 10/20/10 Analyzed: 10/25/10						
Cadmium	ND	0.50	ug/l							
Lead	ND	2.5	"							
Nickel	ND	2.5	"							
Silver	ND	0.50	"							
LCS (0J20004-BS1)				Prepared: 10/20/10 Analyzed: 10/25/10						
Silver	523	0.50	ug/l	500		105	80-120			
Nickel	1100	2.5	"	1000		110	80-120			
Cadmium	996	0.50	"	1000		99.6	80-120			
Lead	1030	2.5	"	1000		103	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0J20004 - EPA 3005A										
Matrix Spike (0J20004-MS1)	**Source: 1010056-02**			Prepared: 10/20/10	Analyzed: 10/25/10					
Lead	715	2.5	ug/l	1000	ND	71.5	75-125			QM-12
Silver	422	0.50	"	500	ND	84.4	75-125			
Cadmium	907	0.50	"	1000	ND	90.7	75-125			
Nickel	724	2.5	"	1000	ND	72.4	75-125			QM-12
Matrix Spike Dup (0J20004-MSD1)	**Source: 1010056-02**			Prepared: 10/20/10	Analyzed: 10/25/10					
Nickel	789	2.5	ug/l	1000	ND	78.9	75-125	8.59	20	
Silver	425	0.50	"	500	ND	85.0	75-125	0.708	20	
Lead	708	2.5	"	1000	ND	70.8	75-125	0.984	20	QM-12
Cadmium	936	0.50	"	1000	ND	93.6	75-125	3.16	20	
Batch 0J20005 - EPA 245.1										
Blank (0J20005-BLK1)				Prepared: 10/20/10	Analyzed: 10/21/10					
Mercury	ND	0.10	ug/l							
LCS (0J20005-BS1)				Prepared: 10/20/10	Analyzed: 10/21/10					
Mercury	4.85	0.10	ug/l	5.00		97.0	85-115			
Matrix Spike (0J20005-MS1)	**Source: 1010056-02**			Prepared: 10/20/10	Analyzed: 10/21/10					
Mercury	3.76	0.10	ug/l	5.00	ND	75.2	70-130			
Matrix Spike Dup (0J20005-MSD1)	**Source: 1010056-02**			Prepared: 10/20/10	Analyzed: 10/21/10					
Mercury	3.38	0.10	ug/l	5.00	ND	67.5	70-130	10.8	20	QM-12

Notes and Definitions

QM-12	The MS and/or MSD percent recoveries indicate bias due to the sample matrix. Method criteria were satisfied.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
A-01	Value outside QC limits due to matrix interference, since other surrogate met requirements. The data is accepted.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

2010 2nd Semi-annual NPDES plant samples

Date Sample: 10/13/10 Start time: 0945

January- June 2010

	Total Discharge MG	Days of Discharge	MGD	% MGD	mls/sample	Time of Sample	Comments
Blowdown	0.201609	51	0.0039531	2.76%	524.9	1145	Intake sample - 1020
RO	2.291070	79	0.0290009	20.27%	3850.5	1122	Combined Discharge - 1035
Sump Drain 4	1.405230	160	0.0087827	6.14%	1166.1	1127	
Sump Drain 5	3.867460	168	0.0230206	16.09%	3056.5	1131	Blowdown Open Closed
LVW 1 & 2	5.437400	177	0.0307198	21.47%	4078.7	1110	Unit - 1 — — off
							Unit - 2 — — off
TWT 5	0.000000	0	0.0000000	0%	0 mls		Unit - 3 — — off
TWT 6	0.000000	0	0.0000000	0%	0 mls		Unit - 4 0800 1250
							Unit - 5 0800 1250
Desal:							
Backwash (1)	0.163100	177	0.0009215				
Seawater (2)	0.000000	177	0.0000000				
Brine (3)	0.000000	177	0.0000000				
Product (4)	0.000000	177	0.0000000				pH Analysis
Diverted	5.624400	177	0.0317763				Intake (M-INT)
Total Pumped	**8.429800**	**177**	**0.0476260**	33.28%	6323.4	1100	1020 8.12pH @ 67.2°F
Total EPS			0.1431030	100%	19000		Discharge (M-001)
Units on line	Unit 1-OFF	Unit 2 - OFF	Unit 3 OFF	Unit 4 - ON	Unit 5 - ON		1035 8.09pH 71.4°F
CW pumps	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5		
	N ON	N OFF	N OFF	E ON	E ON		Inplant (M-001B to M-001H)
	S OFF	S OFF	S ON	W ON	S ON		1220 7.71pH 62.6°F
Time poured the sample to the containers:	1215						TOTAL Residual Chlorine
Sampled by:	Pedro Lopez						0.17 mg/l @ 1222
Signature	Tom McCluskey						Blank @ 0945 5.78pH TRC. 0.00 mg/l

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A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Lab WO No. 10-10-056

Work ID: Encina Semi-Annual Waste Water 2010-2nd Half
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: 69 (total)
Due Date: 10-day TAT

Sampled by: Pedro Lopez / Tom McCluskey (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Intake	01A	10/13/10	1020	Water	250 mL P	4°C, pH<2 HNO_3	ENPS Metals
Intake	01B			Water	250 mL P	4°C, pH<2 H_2SO_4	Nitrogen (Ammonia) 4500-NH3 C; pH Value 4500-H+ B (field test)
Intake	01C			Water	250 mL P	4°C, pH>12 w/NaOH	Cyanide, Total 4500-CN E
Intake	01D/E			Water	2 x 1L AG	4°C	625-ENPS
Intake	01F-I			Water	4 x VOA	4°C, pH<2 HCl	624-ENPS
Intake	01J/K			Water	2 x 1L AG	4°C	608-ENPS
Intake	01L			Water	125 mL P	4°C	Cr6 3500-Cr B
Combined Discharge (DP 001)	02A	10/13/10	~~12-15~~ 1035	Water	500 mL P	4°C, pH<2 HNO_3	ENPS Metals
Combined Discharge (DP 001)	02B			Water	250 mL P	4°C, pH<2 H_2SO_4	Nitrogen (Ammonia) 4500-NH3 C; pH Value 4500-H+ B (field test)
Combined Discharge (DP 001)	02C			Water	250 mL P	4°C, pH>12 w/NaOH	Cyanide, Total 4500-CN E
Combined Discharge (DP 001)	02D-I			Water	6 x 1L AG	4°C	625-ENPS
Combined Discharge (DP 001)	02J-R			Water	9 x VOA	4°C, pH<2 HCl	624-ENPS
Combined Discharge (DP 001)	02S-X			Water	6 x 1L AG	4°C	608-ENPS
Combined Discharge (DP 001)	02Y			Water	125 mL P	4°C	Cr6 3500-Cr B

Comments:
Renewal application parameters included with Combined LVW samples.
Use the Combined Discharge (02) sample for the method QC requirements.
ENPS Metals = Ag, As, Cd, Cu, Ni, Hg, Pb, Se, Zn / 608 = Pesticides / 624 = Volatiles / 625 = Semivolatiles

Releasing	Date	Time	Accepting	Date	Time
	10/13/10	1430		10/13/10	1436
Releasing	Date	Time	Accepting	Date	Time

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A Sempra Energy utility

Chain of Custody Form

Environmental Analysis Laboratory
6555 Nancy Ridge Drive, Suite 300, San Diego CA 92121-3221
Lab Phone No: 858-503-5371 Fax: 858-503-5398

Page 2 of 2

Lab WO No. 10-10-056

Work ID: Encina Semi-Annual Waste Water 2010-2nd Half
Client Name: Sheila Henika
Client Address: 4600 Carlsbad Blvd, Carlsbad, CA 92008-4301
Client Phone: 760-268-4018

Client Code: Cabrillo Power I
Project Code: NPDES Waste Water
Number of Containers: 69 (total)
Due Date: 10-day TAT

Sampled by: Pedro Lopez / Tom McClaskey (signature):

Sample ID	Sample No.	Date	Time	Sample Type	Sample Container	Preservation	Test Codes
Comb. LVW (001B - 001H)	03A	10/13/10	1215 ~~1035~~ PL	Water	250 mL P	4°C, pH<2 HNO$_3$	ENPS Metals; Sb Total ICP 200.7; Be Total ICP 200.7; Tl Total ICP 200.7; Cr Total ICP 200.7
Comb. LVW (001B - 001H)	03B			Water	250 mL P	4°C, pH<2 H$_2$SO$_4$	Nitrogen (Ammonia) 4500-NH3 C; pH Value 4500-H+ B (field test)
Comb. LVW (001B - 001H)	03C			Water	250 mL P	4°C pH>12 w/NaOH	Cyanide, Total 4500-CN E
Comb. LVW (001B - 001H)	03D			Water	125 mL P	4°C	Cr6 3500-Cr B
Comb. LVW (001B - 001H)	03E-G			Water	3 x 1L AG	4°C	625 Semivolatiles (includes Hexachlorocylopentadine; N-nitrosodimethylamine; N-nitrosodiphenylamine; PAHs)
Comb. LVW (001B - 001H)	03H-K			Water	4 x VOA	4°C, pH<2 HCl	624 Volatiles (includes Acrolein; Acrylonitrile; 1,3-dichloropropene; Halomethanes)
Comb. LVW (001B - 001H)	03L-N			Water	3 x 1L AG	4°C	608 Pest/PCB
Comb. LVW (001B - 001H)	03O/P			Water	2 x 1L AG	4°C	1613 TCDD Equivalents
Comb. LVW (001B - 001H)	03Q-V	↓	↓	Water	6 x 1L AG	4°C	Tributyltin (Organotins By Krone et al. 1989)
Blank - Field	04A	10/13/10	0945	Water	250 mL P	4°C, pH<2 HNO$_3$	ENPS Metals
Blank - Field	04B	10/13/10		Water	250 mL P	4°C, pH<2 H$_2$SO$_4$	Nitrogen (Ammonia) 4500-NH3 C; pH Value 4500-H+ B (field test)
Blank - Field	04C	10/13/10		Water	250 mL P	4°C, pH>12 w/NaOH	Cyanide, Total 4500-CN E
Blank - Field	04D/E	10/13/10	↓	Water	2 x 1L AG	4°C	625-ENPS
Blank - Trip	04F/G	9/10/10	0715	Water	2 x VOA	4°C, pH<2 HCl	624-ENPS
Blank - Field	04H/I	10/13/10	0945	Water	2 x 1L AG	4°C	608-ENPS
Blank - Field	04J	10/13/10	↓	Water	125 mL P	4°C	Cr6 3500-Cr B

Comments:
Renewal application parameters included with Combined LVW samples.
Use the Combined Discharge (02) sample for the method QC requirements.
ENPS Metals = Ag, As, Cd, Cu, Ni, Hg, Pb, Se, Zn / 608 = Pesticides / 624 = Volatiles / 625 = Semivolatiles

R2153
R2154

Releasing	Date	Time	Accepting	Date	Time
	10/13/10	1430		10/13/10	1430

S:\LAB\COCFORMS\ENPS Semi2010 Permit Renewal COC.xls COC 2010 Permit Renewal

CRG Marine Laboratories, Inc.
"A Center for Excellence in Analytical Chemistry and Environmental Microbiology"

November 15, 2010

Albert Menagus
San Diego Gas & Electric
6555 Nancy Ridge Drive, Suite 300
San Diego CA, 92121

RE: CRG Work Order: 1011028
Client Project Reference: Encina Semiannual

Enclosed is your analytical report for the referenced project. Samples were received on 11/05/2010 and analyzed as indicated on the Chain of Custody (attached).

The results contained in this report comply with all applicable standards and guidelines established in the CRG Quality Assurance Program Manual (QAPM) and Standard Operating Procedures (SOPs), the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP), and your Quality Assurance Project Plan (QAPP), if one was provided to CRG.

Should you have any questions, or require additional assistance, please do not hesitate to contact me. Thank you.

Sincerely,

Joseph Doak

Joseph Doak
Project Manager

San Diego Gas & Electric		Work Order #:	1011028
Project:	Encina Semiannual	Received:	11/05/10
Project Manager:	Albert Menegus	Reported:	11/15/10

Project Sample List

Client Sample ID	*CRG Sample ID*	*Matrix*	*Date Sampled*	*Date Received*
1010056-05	1011028-01	Liquid	11/03/10 12:33	11/05/10 8:55

San Diego Gas & Electric		Work Order #:	1011028
Project:	Encina Semiannual	Received:	11/05/10
Project Manager:	Albert Menegus	Reported:	11/15/10

Organotins by Krone et al., 1989

Analyte	Result	MDL	RL	Units	Dilution	Batch	Prepared	Analyzed	Method	Qualifier
1010056-05 (1011028-01) Liquid Sampled: 11/03/2010 12:33										
Dibutyltin	ND	1.15	3.45	ng/L	1	C0K1001	11/08/10	11/12/10	Krone et al., 1989	
Monobutyltin	ND	1.15	3.45	ng/L	1	C0K1001	11/09/10	11/12/10	Krone et al., 1989	
Tetrabutyltin	ND	1.15	3.45	ng/L	1	C0K1001	11/09/10	11/12/10	Krone et al., 1989	
Tributyltin	ND	1.15	3.45	ng/L	1	C0K1001	11/09/10	11/12/10	Krone et al., 1989	
Surrogate: (Tripentyltin)			*92 %*	*63-120*		*C0K1001*	*11/09/10*	*11/12/10*	*Krone et al., 1989*	

San Diego Gas & Electric		Work Order #:	1011028
Project: Encina Semiannual		Received:	11/05/10
Project Manager: Albert Menegus		Reported:	11/15/10

Organotins by Krone et al., 1989 - Quality Control

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch C0K1001											
Blank C0K1001-BLK1					Prepared: 11/09/2010			Analyzed: 11/12/2010			
Dibutyltin	ND	1.22	3.66	ng/L							
Monobutyltin	ND	1.22	3.66	ng/L							
Tetrabutyltin	ND	1.22	3.66	ng/L							
Tributyltin	ND	1.22	3.66	ng/L							
Surrogate: (Tripentyltin)							*65*	*53-120*			
LCS C0K1001-BS1					Prepared: 11/09/2010			Analyzed: 11/12/2010			
Dibutyltin	1140	1.19	3.57	ng/L	1190		95	0-152			
Monobutyltin	543	1.19	3.57	ng/L	1190		46	0-121			
Tetrabutyltin	795	1.19	3.57	ng/L	1190		67	61-104			
Tributyltin	937	1.19	3.57	ng/L	1190		79	48-121			
Surrogate: (Tripentyltin)							*34*	*53-120*			*S-04*
LCS Dup C0K1001-BSD1					Prepared: 11/09/2010			Analyzed: 11/12/2010			
Dibutyltin	1110	1.19	3.57	ng/L	1190		93	0-152	3	30	
Monobutyltin	584	1.19	3.57	ng/L	1190		50	0-121	9	30	
Tetrabutyltin	481	1.19	3.57	ng/L	1180		40	61-104	49	30	L-2, L-4
Tributyltin	1030	1.19	3.57	ng/L	1190		87	48-121	10	30	
Surrogate: (Tripentyltin)							*47*	*53-120*			*S-04*
Duplicate C0K1001-DUP1			**Source: 1011028-01**		Prepared: 11/09/2010			Analyzed: 11/12/2010			
Dibutyltin	ND	1.15	3.45	ng/L		ND				30	
Monobutyltin	ND	1.15	3.45	ng/L		ND				30	
Tetrabutyltin	ND	1.15	3.45	ng/L		ND				30	
Tributyltin	ND	1.15	3.45	ng/L		ND				30	
Surrogate: (Tripentyltin)							*82*	*53-120*			
Matrix Spike C0K1001-MS1			**Source: 1011028-01**		Prepared: 11/09/2010			Analyzed: 11/12/2010			
Dibutyltin	1340	1.14	3.41	ng/L	1140	ND	118	0-152			
Monobutyltin	344	1.14	3.41	ng/L	1140	ND	30	0-121			
Tetrabutyltin	897	1.14	3.41	ng/L	1140	ND	79	61-104			
Tributyltin	1180	1.14	3.41	ng/L	1140	ND	104	48-121			
Surrogate: (Tripentyltin)							*94*	*53-120*			

Organotins by Krone et al., 1989 - Quality Control

Analyte	Result	MDL	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch C0K1001											
Matrix Spike C0K1001-MS2		**Source: 1011018-02**			Prepared: 11/10/2010		Analyzed: 11/12/2010				
Dibutyltin	1430	1.20	3.61	ng/L	1200	ND	119	0-152			
Monobutyltin	1010	1.20	3.61	ng/L	1200	ND	84	0-121			
Tetrabutyltin	839	1.20	3.61	ng/L	1200	ND	70	61-104			
Tributyltin	1170	1.20	3.61	ng/L	1200	ND	97	48-121			
Surrogate: (Tripentyltin)							*91*	*53-120*			
Matrix Spike Dup C0K1001-MSD1		**Source: 1011028-01**			Prepared: 11/09/2010		Analyzed: 11/13/2010				
Dibutyltin	1100	1.16	3.49	ng/L	1160	ND	95	0-152	20	30	
Monobutyltin	387	1.16	3.49	ng/L	1160	ND	33	0-121	12	30	
Tetrabutyltin	816	1.16	3.49	ng/L	1160	ND	70	61-104	9	30	
Tributyltin	1040	1.16	3.49	ng/L	1160	ND	90	48-121	12	30	
Surrogate: (Tripentyltin)							*81*	*53-120*			
Matrix Spike Dup C0K1001-MSD2		**Source: 1011018-02**			Prepared: 11/10/2010		Analyzed: 11/13/2010				
Dibutyltin	1580	1.25	3.75	ng/L	1250	ND	126	0-152	10	30	
Monobutyltin	855	1.25	3.75	ng/L	1250	ND	68	0-121	16	30	
Tetrabutyltin	977	1.25	3.75	ng/L	1250	ND	78	61-104	15	30	
Tributyltin	1290	1.25	3.75	ng/L	1250	ND	103	48-121	10	30	
Surrogate: (Tripentyltin)							*89*	*53-120*			

Qualifiers and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
L-4	CRG's QAPP allows 5% of compounds greater than 10 times the MDL to be outside acceptance limits for precision and/or accuracy. This is often due to random error and cannot be attributed to a specific issue.
L-2	The LCS and/or LCS duplicate compound recovery was below the acceptance limits. Results for this compound may be biased low.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

San Diego Gas & Electric

Project:	Encina Semiannual	Received:	11/05/10
Project Manager:	Albert Menegus	Reported:	11/15/10

Work Order #: 1011028

Qualifiers Summary

LabNumber	*Analyte*	*Qualifier*
C0K1001-BS1	(Tripentyltin)	S-04
C0K1001-BSD1	Tetrabutyltin	L-2
C0K1001-BSD1	Tetrabutyltin	L-4
C0K1001-BSD1	(Tripentyltin)	S-04

SDGE
A Sempra Energy utility

CHAIN OF CUSTODY/SAMPLE SUBMITTAL FORM

ENVIRONMENTAL ANALYSIS LABORATORY
6555 NANCY RIDGE DRIVE, SUITE 300, SAN DIEGO, CA 92121-3221
(858) 503-5371 FAX. (858) 503-5398

1011028

LAB NO.

WORK ID. Encina Semiannual WW 2010-2nd Half	CLIENT NAME Albert Menegus	CLIENT CODE
SAMPLED BY (Print & Signature) Pedro Lopez	CLIENT'S PHONE 858-503-5371	PROJECT CODE
CLIENT'S ADDRESS same as above	NUMBER OF CONTAINERS 6	DATE DUE Routine

SAMPLE ID	DATE	TIME	SAMPLE TYPE	SAMPLE CONTAINER	PRESERVATION	ANALYSIS NEEDED	TEST CODE(S)
1010056-05	11/3/10	1233	Wate	6 x 1-L AG	4°C	Organotins by GCMS using Krône, *et al.*	

COMMENTS

Please email report to: AMenegus@semprautilities.com ,thank you.

Sample temperature when packed in cooler = 3.9°C

RELEASING Albert M	DATE 11/4/10	TIME 0830	ACCEPTING	DATE 11/5/10	TIME 0855
RELEASING	DATE	TIME	ACCEPTING	DATE	TIME

Shaded areas for Lab use only

DISTRIBUTION: WHITE – LAB YELLOW – LAB REPORT PINK LOG GOLDENROD – CUSTOMER COPY

131-00130 (6/09)

CRG Marine Laboratories, Inc.

"A Center for Excellence in Analytical Chemistry and Environmental Microbiology"

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 Fax (310) 533-5003 www.crglabs.com

CRG WORKORDER # 1011038

SAMPLE RECEIPT FORM

CLIENT: SDGE   Date Received: 11.05.10   Total # of Samples: 4

Received By:

COURIER INFORMATION

○ CRG   ○ OTHER   ☒ FEDEX

○ CLIENT   ○ UPS   tracking # 7964 1540 4900

TEMPERATURE

4 °C   ○ WET ICE   ☒ BLUE ICE   ○ NO ICE

SAMPLE MATRIX

☒ LIQUID   ○ TISSUE

☐ Composite at CRG, equal   ☐ Homogenized

☐ Composite at CRG, flow-weighted   ☐ Unhomogenized

○ SEDIMENT   ○ OTHER

CLIENT COC

☒ INCLUDED   ☒ SIGNED

○ NOT INCLUDED   ○ NOT SIGNED

CONDITION OF SAMPLES UPON VERIFICATION

Samples Verified By:

	Yes	No	NA
All sample containers received intact and in good condition	☑	☐	☐
All samples listed on COC(s) are present	☑	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s)	☑	☐	☐
Correct containers used for analyses requested	☑	☐	☐
All samples received within method holding time	☑	☐	☐

NOTES

Samples Labeled By:

Vista
Analytical Laboratory

November 03, 2010

Vista Project I.D.: 32878

Mr. Albert Menegus
San Diego Gas & Electric
6555 Nancy Ridge Road
Suite 300
San Diego, CA 92121

Dear Mr. Menegus,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on October 21, 2010 under your Project Name "Encina Semiannual WW 2010-2nd Half". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha M. Maier
Laboratory Director

Section I: Sample Inventory Report

Date Received: **10/18/2010**

Vista Lab. ID	Client Sample ID
32878-001	1010056-03

SECTION II

Vista

Method Blank

EPA Method 1613

Matrix:	Aqueous	QC Batch No.:	3397
Sample Size:	1.00 L	Date Extracted:	27-Oct-10

Lab Sample:	0-MB001				
Date Analyzed DB-5:	3-Nov-10	Date Analyzed DB-225:	NA		

Analyte	Conc. (pg/L)	DL ^{a}	EMPC ^{b}	Qualifiers
2,3,7,8-TCDD	ND	0.719		
1,2,3,7,8-PeCDD	ND	0.725		
1,2,3,4,7,8-HxCDD	ND	0.883		
1,2,3,6,7,8-HxCDD	ND	0.922		
1,2,3,7,8,9-HxCDD	ND	0.962		
1,2,3,4,6,7,8-HpCDD	ND	1.14		
OCDD	2.86			J
2,3,7,8-TCDF	ND	0.695		
1,2,3,7,8-PeCDF	ND	0.523		
2,3,4,7,8-PeCDF	ND	0.503		
1,2,3,4,7,8-HxCDF	ND	0.481		
1,2,3,6,7,8-HxCDF	ND	0.528		
2,3,4,6,7,8-HxCDF	ND	0.552		
1,2,3,7,8,9-HxCDF	ND	0.736		
1,2,3,4,6,7,8-HpCDF	ND	0.792		
1,2,3,4,7,8,9-HpCDF	ND	0.790		
OCDF	ND	1.32		

	Labeled Standard	%R	LCL-UCL ^{d}	Qualifiers
IS	13C-2,3,7,8-TCDD	108	25 - 164	
	13C-1,2,3,7,8-PeCDD	104	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	97.5	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	103	28 - 130	
	13C-1,2,3,7,8,9-HxCDD	96.7	32 - 141	
	13C-1,2,3,4,6,7,8-HpCDD	92.9	23 - 140	
	13C-OCDD	86.8	17 - 157	
	13C-2,3,7,8-TCDF	107	24 - 169	
	13C-1,2,3,7,8-PeCDF	106	24 - 185	
	13C-2,3,4,7,8-PeCDF	107	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	102	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	104	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	101	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	97.5	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	91.4	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	92.8	26 - 138	
	13C-OCDF	89.8	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	119	35 - 197	

Totals

Total TCDD	ND	0.719
Total PeCDD	ND	0.725
Total HxCDD	ND	0.922
Total HpCDD	ND	1.14
Total TCDF	ND	0.695
Total PeCDF	ND	0.513
Total HxCDF	ND	0.574
Total HpCDF	ND	0.791

Toxic Equivalent Quotient (TEQ) Data ^{e}

TEQ (Min): 0.00286

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: TEH

Approved By: Martha M. Maier 03-Nov-2010 13:34

OPR Results

EPA Method 1613

Matrix: Aqueous
Sample Size: 1.00 L
QC Batch No.: 3397
Date Extracted: 27-Oct-10
Lab Sample: 0-OPR001
Date Analyzed DB-5: 2-Nov-10
Date Analyzed DB-225: NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	9.94	6.7 - 15.8	**IS**	13C-2,3,7,8-TCDD	90.5	25 - 164	
1,2,3,7,8-PeCDD	50.0	50.4	35 - 71		13C-1,2,3,7,8-PeCDD	93.5	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	50.7	35 - 82		13C-1,2,3,4,7,8-HxCDD	83.9	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	51.2	38 - 67		13C-1,2,3,6,7,8-HxCDD	83.9	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	51.1	32 - 81		13C-1,2,3,7,8,9-HxCDD	81.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	50.0	50.3	35 - 70		13C-1,2,3,4,6,7,8-HpCDD	78.5	23 - 140	
OCDD	100	103	78 - 144		13C-OCDD	75.6	17 - 157	
2,3,7,8-TCDF	10.0	9.71	7.5 - 15.8		13C-2,3,7,8-TCDF	90.1	24 - 169	
1,2,3,7,8-PeCDF	50.0	49.6	40 - 67		13C-1,2,3,7,8-PeCDF	96.0	24 - 185	
2,3,4,7,8-PeCDF	50.0	49.5	34 - 80		13C-2,3,4,7,8-PeCDF	96.9	21 - 178	
1,2,3,4,7,8-HxCDF	50.0	50.3	36 - 67		13C-1,2,3,4,7,8-HxCDF	86.9	26 - 152	
1,2,3,6,7,8-HxCDF	50.0	50.3	42 - 65		13C-1,2,3,6,7,8-HxCDF	86.8	26 - 123	
2,3,4,6,7,8-HxCDF	50.0	49.6	35 - 78		13C-2,3,4,6,7,8-HxCDF	85.0	28 - 136	
1,2,3,7,8,9-HxCDF	50.0	48.9	39 - 65		13C-1,2,3,7,8,9-HxCDF	83.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	50.0	49.7	41 - 61		13C-1,2,3,4,6,7,8-HpCDF	78.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	50.0	49.1	39 - 69		13C-1,2,3,4,7,8,9-HpCDF	78.2	26 - 138	
OCDF	100	100	63 - 170		13C-OCDF	76.2	17 - 157	
				CRS	37Cl-2,3,7,8-TCDD	107	35 - 197	

Analyst: TEH

Approved By: Martha M. Maier 03-Nov-2010 13:34

Sample ID: **1010056-03**

EPA Method 1613

Client Data
Name: San Diego Gas & Electric
Project: Encina Semiannual WW 2010-2nd Ha
Date Collected: 13-Oct-10
Time Collected: 1215

Sample Data
Matrix: Aqueous
Sample Size: 0.979 L

Laboratory Data
Lab Sample: 32878-001
QC Batch No.: 3397
Date Analyzed DB-5: 3-Nov-10
Date Received: 18-Oct-10
Date Extracted: 27-Oct-10
Date Analyzed DB-225: NA

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.733		
1,2,3,7,8-PeCDD	ND	0 874		
1,2,3,4,7,8-HxCDD	ND	1.05		
1,2,3,6,7,8-HxCDD	ND	1.10		
1,2,3,7,8,9-HxCDD	ND	1.18		
1,2,3,4,6,7,8-HpCDD	ND	1.29		
OCDD	2.20			J,B
2,3,7,8-TCDF	ND	0.760		
1,2,3,7,8-PeCDF	ND	0.706		
2,3,4,7,8-PeCDF	ND	0.654		
1,2,3,4,7,8-HxCDF	ND	0.537		
1,2,3,6,7,8-HxCDF	ND	0.598		
2,3,4,6,7,8-HxCDF	ND	0 618		
1,2,3,7,8,9-HxCDF	ND	0.827		
1,2,3,4,6,7,8-HpCDF	ND	0.832		
1,2,3,4,7,8,9-HpCDF	ND	0.856		
OCDF	ND	1.42		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	92.9	25 - 164	
	13C-1,2,3,7,8-PeCDD	88.9	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	85.4	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	92.3	28 - 130	
	13C-1,2,3,7,8,9-HxCDD	85.9	32 - 141	
	13C-1,2,3,4,6,7,8-HpCDD	86.8	23 - 140	
	13C-OCDD	88.5	17 - 157	
	13C-2,3,7,8-TCDF	93.1	24 - 169	
	13C-1,2,3,7,8-PeCDF	91.4	24 - 185	
	13C-2,3,4,7,8-PeCDF	90.9	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	87.5	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	92.9	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	88.5	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	87.9	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	86.2	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	87.6	26 - 138	
	13C-OCDF	89.7	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	107	35 - 197	

Totals

Total TCDD	ND	0.733
Total PeCDD	ND	0.874
Total HxCDD	ND	1.11
Total HpCDD	ND	1.29
Total TCDF	ND	0 760
Total PeCDF	ND	0.680
Total HxCDF	ND	0.645
Total HpCDF	ND	0.844

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.00220

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: TEH

Approved By: Martha M. Maier 03-Nov-2010 13:34

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	Recovery was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SDGE
A Sempra Energy utility

CHAIN OF CUSTODY/SAMPLE SUBMITTAL FORM

ENVIRONMENTAL ANALYSIS LABORATORY
6555 NANCY RIDGE DRIVE, SUITE 300, SAN DIEGO, CA 92121-3221
(858) 503-5371 FAX: (858) 503-5398

32878, 0.8°C

LAB NO.

WORK ID. Encina Semiannual WW 2010-2nd Half		CLIENT NAME Albert Menegus	CLIENT CODE
SAMPLED BY (Print & Signature) Pedro Lopez/Tom McCluskey		CLIENT'S PHONE 858-503-5371	PROJECT CODE
CLIENT'S ADDRESS same as above		NUMBER OF CONTAINERS 2	DATE DUE Routine

SAMPLE ID	DATE	TIME	SAMPLE TYPE	SAMPLE CONTAINER	PRESERVATION	ANALYSIS NEEDED	TEST CODE(S)
1010056-03	10/13/10	1215	Water	2 x 1-L AG	4°C; $Na_2S_2O_3$	EPA 1613	

COMMENTS

Please email report to: AMenegus@semprautilities.com ,thank you.

Sample temperature when packed in cooler = 4.3°C

RELEASING	DATE 10/20/10	TIME 1200	ACCEPTING Ronda Burnell	DATE 10/21/10	TIME 1251
RELEASING	DATE	TIME	ACCEPTING	DATE	TIME

Shaded areas for Lab use only

DISTRIBUTION: WHITE - LAB YELLOW - LAB REPORT PINK - LOG GOLDENROD - CUSTOMER COPY

131-00130 (6/09)

Vista
Analytical Laboratory

SAMPLE LOG-IN CHECKLIST

Vista Project #: 32878 TAT Standard

Samples Arrival:	Date/Time 10/21/10 0855	Initials: RB	Location: WR-2 Shelf/Rack: N/A
Logged In:	Date/Time 10/21/10 1552	Initials: RB	Location: WR-2 Shelf/Rack: B-2

Delivered By:	[✓ FedEx]	UPS	Cal	DHL	Hand Delivered	Other

Preservation:	[✓ Ice]	[✓ Blue Ice]	Dry Ice	None

Temp °C 0.8	Time: 0916	Thermometer ID: IR-1

	YES	NO	NA
Adequate Sample Volume Received? (2) 1 Liter Bottles	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Shipping Documentation Present?	✓		
Airbill Trk # 7940 9242 9995	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	[✓ COC]	[✓ Sample Container]	None

Shipping Container	Vista	[✓ Client]	Retain	[✓ Return]	Dispose

Comments:

1010056-03 A & B Bottle

SECTION 3

Attachment 3.5 – Best Management Practices (Storm Water Pollution Prevention Plan)

REPORT

STORM WATER POLLUTION PREVENTION PLAN AND BEST MANAGEMENT PRACTICES PLAN

CABRILLO POWER I LLC

Prepared for:

NRG

CABRILLO POWER I LLC
ENCINA POWER STATION
4600 CARLSBAD BOULEVARD
CARLSBAD, CALIFORNIA 92008

Revision: December 2010

E2 ManageTech SOLUTIONS

E2 Project Number: 10-023-001

5000 E. Spring Street, Suite 720
Long Beach, California 90815
P: (562) 740-1060
www.E2ManageTech.com

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

FOREWORD

In November 1990, the United States Environmental Protection Agency (EPA) published final regulations that establish application requirements for storm water permits. The primary emphasis of these National Pollutant Discharge Elimination System (NPDES) storm water regulations is pollution prevention. As a result, the concept of the Storm Water Pollution Prevention Plan (SWPPP) was developed,and became an integral requirement of the Industrial Activities Storm Water General Permit, which was adopted by the California State Water Resources Control Board (SWRCB). On April 17, 1997, the SWRCB adopted a revised Industrial Activities Storm Water Permit, which replaced the expired 1990 permit (see Appendix C). The revised permit incorporates several additional components and contains some deletions to the previously existing permit. These revisions are reflected in this document.

The overall objective of this SWPPP is to:

- **Identify sources of pollution that affect the quality of industrial storm water discharges and authorized non-storm water discharges; and**
- **Implement practices to reduce or prevent pollutants in storm water discharges.**

Elements of this SWPPP include a topographic map of the general vicinity around the site, a site plan, a description of activities that may affect storm water quality, a significant materials inventory, potential pollutant pathway identification, and a summary of pollutant spills.

The practices used to reduce or eliminate pollutants in storm water include identification of SWPPP personnel responsible for developing, implementing and revising this Plan, preventive maintenance and inspections, good housekeeping, spill prevention and response, and storm water management practices including structural and nonstructural controls for minimizing storm water contamination, sediment and erosion control, employee training, and inspections.

STATEMENT OF COMPANY POLICY

It is the intent and desire of Cabrillo Power I LLC to comply with all laws and regulations. To that end, the company will do its part to protect and improve the environment by providing an atmosphere of cooperation, the physical resources necessary to develop and implement a comprehensive SWPPP and the leadership to get the job done properly.

The company will evaluate potential sources of storm water pollution from the Encina Power Station facility and undertake efforts to control or eliminate them. If the company is unable to totally eliminate the pollutant, then the company will make every effort to control the pollutant and mitigate its effect on the environment. Implementation of this SWPPP is designed to achieve this goal and will be updated periodically as the need arises.

Cabrillo Power I LLC recognizes that to achieve these goals, a partnership must be formed with all parties involved: the government, the company, and the employees. The employees of this company are encouraged to provide input to the pollution prevention efforts in this plan and are encouraged to notify their supervisor or Station management to report potential instances of noncompliance.

STORM WATER POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Certified By:

Cabrillo Power I LLC
By: NRG Cabrillo Operations Inc.
It's Authorized Agent

By: Jerry L Carter Date: 01/28/2011
Jerry L. Carter
Plant Manager

STORM WATER POLLUTION PREVENTION PLAN TEAM PRINCIPAL CONTACTS LIST ENCINA POWER STATION

Plant Manager .... Jerry L. Carter
(760) 268-4011

Operations & Maintenance Manager .... Robert Stahl
(760) 268-4093
Shawn Reilly
(760) 268-4012

Technical Manager (Storm Water Compliance Coordinator) .... Dan Bergeron
(760) 268-4015

Environmental Specialist .... Sheila Henika
(760) 268-4018

Environmental Specialist .... Brian Yim
(760) 268-4020

Laboratory Supervisor/ Fueling Administrator .... Pedro Lopez
(760) 268-4070

SECTION 1 STORM WATER POLLUTION PREVENTION PLAN

This Storm Water Pollution Prevention Plan (SWPPP) was developed to allow Cabrillo Power I LLC to minimize the potential discharge of pollutants in storm water discharges from the Cabrillo Power I LLC Encina Power Station facility, to consolidate information provided in the permit application, and to ensure compliance with the terms and conditions of the April 1997 National Pollutant Discharge Elimination System (NPDES) storm water permit issued by the State Water Resources Control Board (SWRCB) (97-03-WQ/ CAS000001: Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (i.e., "General Permit"]; see Appendix D).

This SWPPP has been specifically designed to parallel and otherwise reflect the content and structure of the General Permit. This structure is preferred so that all elements mandated by the General Permit are covered, and that ease of assessing plan compliance is assured. This SWPPP identifies potential sources of pollution that may affect the quality of storm water discharges associated with industrial activity at the site, and presents the management practices that will be used at Cabrillo Power I LLC's Encina Power Station facility for reducing pollutants in storm water discharges. Industrial activities that are subject to the general industrial storm water regulations include the following:

> ". . . industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or byproducts used or created by the facility; material handling sites; refuse sites, sites used for the application or disposal of process wastewaters; sites used for the storage and maintenance of material-handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water."

Sources of information used to assist with the development of this SWPPP include the following:

- SWRQB Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements (WDR) for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities, April 17, 1997.

- 40 Code of Federal Regulations (CFR) Part 122 (Final Rule)
- U.S. Environmental Protection Agency (EPA) storm water hotline: 1-703-821-4823
- In accordance with §A.10 of the General Permit, the following general requirements apply to all facilities that are required to maintain SWPPPs:
- The SWPPP must be retained onsite and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) that receives the storm water discharges.
- The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements outlined in the General Permit. As requested by the Regional Water Board and/or local agency, the facility operator must submit a SWPPP revision and implementation schedule that meets the minimum requirements of the General Permit to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator must provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.
- The SWPPP must be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- Other than as provided in the General Permit, the SWPPP must be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of the General Permit.
- When any part of the SWPPP is infeasible to implement by the deadlines specified in the General Permit due to proposed significant structural changes, the facility operator must submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the Best Management Practices (BMPs) that will be implemented in the interim

period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators must provide written notification of the Regional Water Board within 14 days after the SWPPP revisions are implemented.

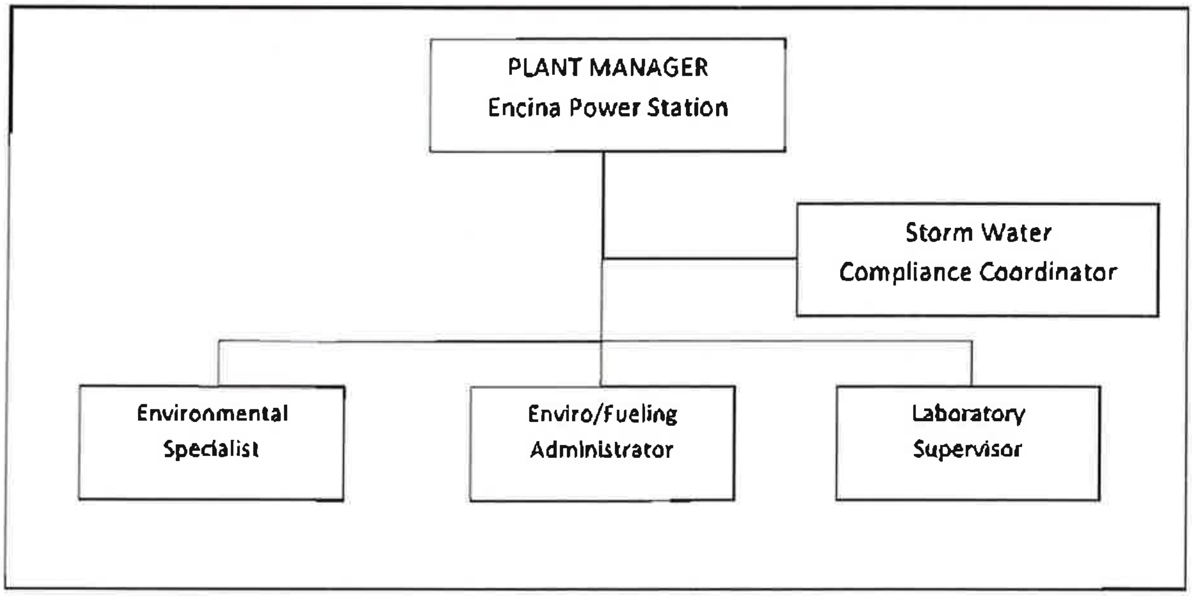
- The SWPPP must be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that must be available to the public by the Regional Water Board under Section 308 (b) of the Clean Water Act.

1.1 COMPANY MANAGEMENT AND ORGANIZATION

The following discussion provides a perspective on the responsibilities and organization of the personnel associated with the Storm Water Pollution Prevention Team.

Pollution Prevention Team

In accordance with the requirements of the General Permit, a Storm Water Pollution Prevention Team has been organized at Encina Power Station facility to assist in development, implementation and revision of this SWPPP and to conduct all monitoring program activities required by the General Permit. These positions and their responsibilities are shown and described below. Refer to the list of principal contacts at the front of this document for specific personnel assigned to these positions.



- Review of public and private records of current and historical land use
- Review for prior releases of hazardous materials
- Environmental database search
- Review of relevant files of federal, state, and local agencies as appropriate
- Visual survey of the subject Site and adjacent properties
- Review of historical aerial photographs
- Interviews with current and previous owners and operators
- Review of regulatory correspondence and environmental reports
- Report preparation

The above information was collected and evaluated and is included in this report, which summarizes our findings, opinions and conclusions.

- **The Plant Manager – Encina Power Station** will be responsible for signing the Annual Report and certifying that the elements of this plan are being implemented.

- **The Storm Water Compliance Coordinator** will be responsible for recommending revisions and updates to the SWPPP to assure compliance. He/she will also assist in updating this plan as appropriate based on team recommendations.

- **The Fueling Administrator** will be responsible for assigning respective staff members specific responsibilities for prevention of storm water pollution and provide quality assurance (QA) that implementation is carried through for all fueling shipments and transfers.

- **The Environmental Specialist** will be responsible for planning and scheduling staff training and implementation programs in accordance with this plan. He/she will be responsible for instructing and assuring their respective staff members operate and maintain the facility in a storm water-sensitive manner to continually assure compliance with this SWPPP. He/she will also coordinate indoctrination and orientation of new facility employees such that all onsite employees are consistently educated in storm water pollution awareness. He/she will assure that shipping, receiving, storage, and potential spillage of significant materials are continually safeguarded against storm water pollution.

- **The Laboratory Supervisor** will be responsible for conducting observations and sampling in accordance with this Plan, for performing laboratory analyses of the samples collected, and preparing the Annual Report. He/she will also be responsible for archiving all data and support information collected, as well as completion of the Annual Compliance Evaluation report.

The above personnel will receive training for each of their specific responsibilities in storm water pollution prevention in accordance with Cabrillo Power I LLC standard practice. These persons will then assure that remaining site personnel are educated regarding proper work practices and management techniques to mitigate pollutant exposure to storm water flows. Refresher training for site personnel will be conducted annually so that proper implementation of the SWPPP can be assured prior to the onset of seasonal rainfall. Specific responsibilities will be in accordance with those specified in Table 1.

1.2 FACILITY DESCRIPTION

Regional Setting and Site Map

The Encina Power Station facility of Cabrillo Power I LLC is located in the northwest area of San Diego County, California. The facility is located in township 11 south and range 4 west in the San Luis Rey quadrangle as shown in Figure 1. The facility is located north of the intersection of Cannon Road and Carlsbad Boulevard and encompasses approximately 130 acres (Figure 1; Figure 2).

The Encina Power Station produces electricity utilizing natural gas and residual fuel oil as fuel, and is classified by Standard Industrial Classification (SIC) code 4911: "Steam Electric Generating Facilities."

Table 1
Storm Water/Non-Storm Water Monitoring Responsibilities

MONTH	ACTIVITY	RESPONSIBLE PERSON*	LOG FORM**
January	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (January, February or March). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS	VI V VI
February	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (January, February or March). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS	VI V VI
March	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (January, February or March). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS	VI V VI
April	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (April, May or June). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS	VI V VI
May	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (April, May or June). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected. • Conduct annual site inspection. • Schedule and conduct annual comprehensive evaluation. • Review and revise SWPPP, as appropriate. • Prepare Annual Report	LS LS LS LS LS/SWCC SWPPT LS/SWCC	VI V VI I III/VIII II NA

Table 1

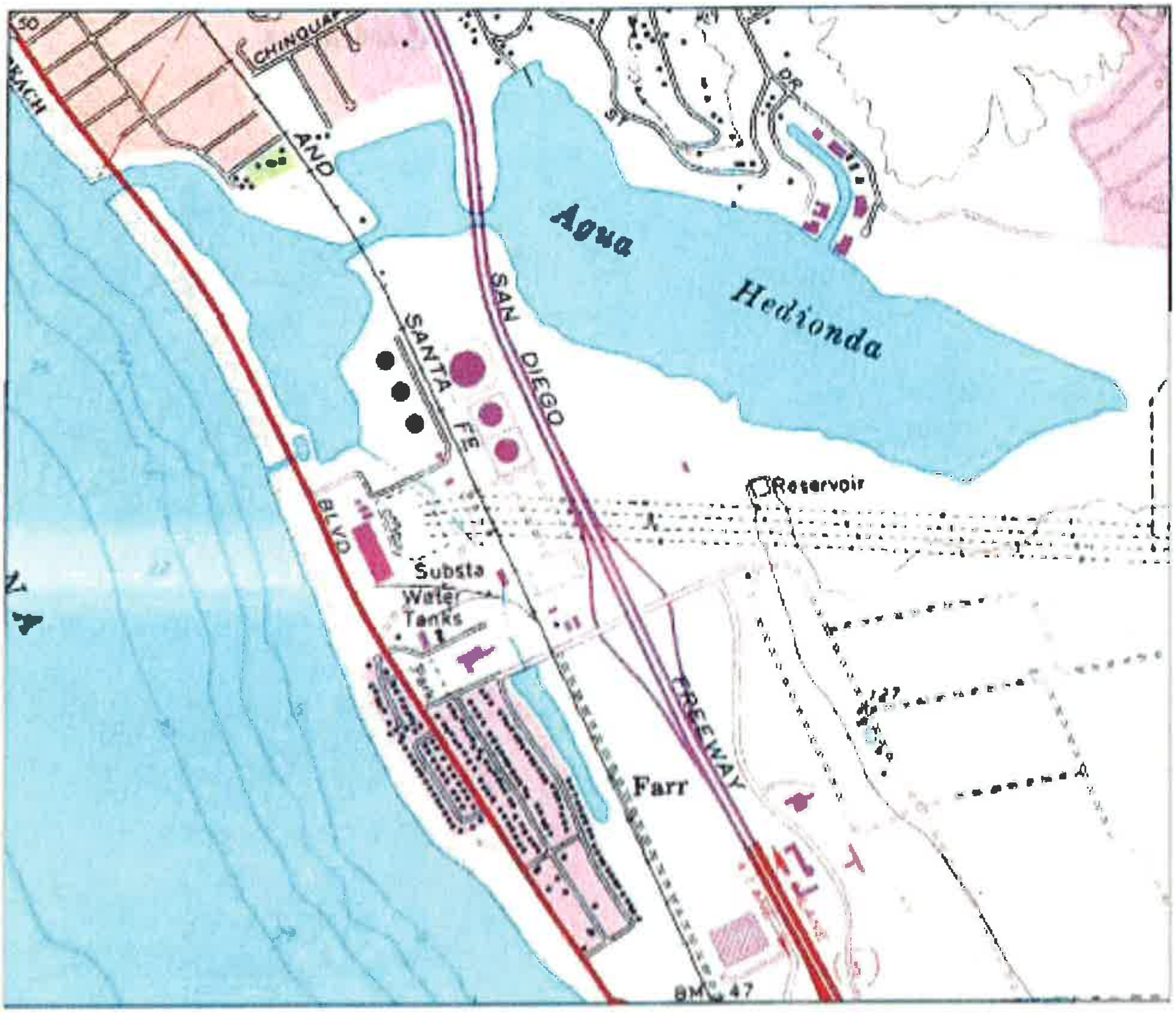
Storm Water/Non-Storm Water Monitoring Responsibilities (continued)

MONTH	ACTIVITY	RESPONSIBLE PERSON*	LOG FORM**
June	*Beginning of dry season.* • Non-storm water discharge visual observations once per quarter (April, May or June). • Submit Annual Report to RWQCB by July 1 each year	LS LS/SWCC	V I – VIII
July	• Non-storm water discharge visual observations once per quarter (July, August or September).	LS	V
August	• Non-storm water discharge visual observations once per quarter (July, August or September).	LS	V
September	• Non-storm water discharge visual observations once per quarter (July, August or September).	LS	V
October	*Beginning of wet season.* • Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (October, November or December). • Water samples collected from all identified outfalls during first hour of *first* storm event of wet season. • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season.	LS LS LS LS	VI V VI VI
November	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (October, November or December). • Water samples collected from all identified outfalls during first hour of *first* storm event of wet season, if not already collected. • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS LS	VI V VI VI
December	• Wet season visual observations once per month during first hour of storm. • Non-storm water discharge visual observations once per quarter (October, November or December). • Water samples collected from all identified outfalls during first hour of *second* storm event of wet season, if not already collected.	LS LS LS	VI V VI

* LS: Laboratory Supervisor
SWCC: Storm Water Compliance Coordinator
SWPPT: Storm Water Pollution Prevention Team

** These forms or other appropriate forms may be used

Figure 1. Location of Encina Power Station Facility, Cabrillo Power I LLC



San Luis Rey, Calif. NE/4 Oceanside 15' Quadrangle

N3307.5 – W11715/7.5 1968 Photo revised 1975
AMS 2550 III NE – Series V895
United States Geological Service

Figure 2. Encina Power Station SWPPP Site Layout Plan, Cabrillo Power I LLC

SEE FULL SCALE DRAWING INCLUDED AS APPENDIX E

A total of five steam turbine generator units operate at the plant producing a total of 950 megawatts (MW) of electrical energy. Each turbine generator is driven by superheated steam produced in boilers through the burning of natural gas or residual fuel oil. Natural gas is supplied by two gas runs with pressure regulating stations located northeast and southeast of the Power Station. Residual fuel oil is supplied to the Power Station from seven aboveground storage tanks (ASTs) that have floating roofs. The tanks range in capacity from 126,000 to 450,000 barrels (bbls). Maximum storage capacity of these tanks is 1.7 million bbls. The electrical generators are cooled with 98 percent pure hydrogen gas for more efficient cooling. Also on site is a 20 MW gas turbine which burns natural gas or diesel oil. This unit was installed for "black starts" and may be used for power generation.

Wastewater generated at the plant is routed through wastewater treatment facilities (WWTF) located east of the plant and is treated as required and tested prior to discharge.

The main transformers and auxiliary transformers for the steam generating units are located immediately east of the Power Station building. East of the Power Station is a 138-kilovolt (kV) and 230 kV switch yard. All the transformers and oil circuit breakers contain non-polychlorinated biphenyl (PCB) insulating oil.

Two lessees occupy portions of the Encina Power Station site. Poseidon Resources utilizes a portion of the west parking lot for a pilot desalination plant. Carlsbad Aquafarm (CA) utilizes the northern shore of the Power Station discharge pond and a 5-acre area of the outer Agua Hedionda Lagoon for aquaculture and processing.

Climate

The Encina Power Station area is characterized as an arid climate with warm, dry summers and mild winters. Winter precipitation in the area is associated with storms migrating inland from the Pacific Ocean. Nearly 90 percent of the annual rainfall occurs during the period from November to April with a mean annual rainfall of about 9 inches (NOAA, 1991).

Topography and Drainage

The topography of the site is moderate to flat and generally slopes west toward Carlsbad Boulevard and the Pacific Ocean. As indicated by earlier storm water investigations at the Encina Power Station (Geocon Environmental Consultants Inc.[Geocon], 1992), the Encina facility contains six different surface drainage basins (Figure 2). These drainage basins are described as follows:

Basin A: Fuel Oil Tank Nos. 4, 5, 6, 7 and adjacent access road, vacant land, and storage areas located in the north east corner of the site.

Basin B:	Vacant storage area, switching yard, paved areas, waste water treatment facility, dredge equipment, reverse osmosis, machine shop, and hazardous materials storage area.
Basin C:	Fuel Oil Tank Nos. 1, 2 and 3.
Basin D:	Power Station, gas turbine, main transformers, paint booth, and sodium hypochlorite tanks, sulfuric acid and sodium hydroxide tanks.
Basin E:	Employee parking area, administrative buildings and maintenance building.
Basin F:	Dredge dock, access road to dock structure at Carlsbad Aquafarm, and Poseidon Resources pilot desalination plant.

The amount of impervious surface (e.g., paved surfaces, structures) on this site is approximately 10 percent (Geocon, 1992). The balance of the site consists of planted landscaping, natural vegetation, and evaporation or retention areas. During periods of rain, storm water runoff is generally diverted by surface gradients and curbing to storm water inlets and drainage channels located throughout the site. The nearest surface water bodies to the Encina Power Station facility are the Pacific Ocean directly to the west and the Agua Hedionda Lagoon directly to the north.

There are several storm water conveyance and discharge structures located on the site. These include sumps, pump pits, swales and ditches, all of which are depicted in Figure 2. In addition to conveyance systems for storm water that originates onsite, a 96-inch storm drain pipe that discharges to the Agua Hedionda lagoon at the north end of the site from the west side of Basin B contains flow from offsite sources in the Carlsbad area. Facility personnel have observed flow in this pipe all year round. In addition to surface and subsurface drains, throughout the site, multiple roof drains divert storm water to the ground surface, which then follows the local topography generally leading toward Carlsbad Boulevard.

Security

The Encina Power Station facility is completely surrounded with fencing, excluding lagoon waterfront. Cabrillo Power I LLC maintains a security force at the Power Station so that a pair of security guards is onsite 24 hours per day. A guard station is located at the main entrance to the facility. One of the guard pair patrols the Power Station facility during traditional non-business hours. All valves used to drain tank retention areas and sumps are locked in the closed position when not in use. Only trained operators or supervisors have the authority to unlock and open drain valves and operate sump pumps. All outside areas are lighted during the night. Visitors are required to check in at the main entrance before clearance can be given for site visitation.

1.3 SIGNIFICANT MATERIALS

There are a number of "significant materials[1]" used at the Encina Power Station facility that have the potential to be exposed to precipitation. "Significant materials" include metallic products, and any chemical the facility is required to report under Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA) that have the potential to be released with storm water discharges. These commonly include stored metal parts, cutting/lubricating oils, water softening/treating chemicals, paints, and metal shaving waste.

In accordance with §A.5 of the General Permit, detailed information regarding the significant materials handled and/or stored at the Encina Power Station facility is provided Table 2. It should be noted that significant materials used at the Power Station are expendable and are consumed onsite. In this regard, there is no offsite shipping of significant materials, incoming shipments serve to restore inventories as materials are used or otherwise consumed.

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[1] 1 The 1997 General Permit defines significant materials as including but not limited to "raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101 (14) of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges".

Table 2. Significant Materials Handled and Stored at the Encina Power Station Facility

Material	Receiving Location	Handling Location	Storage Location	Quantity/Capacity
Fuel Oil	Fuel tanks (Basin A and C)	Burned in Power Station boilers to produce steam	East/West Tank Farms	Tank 1-3: 126,400 bbls Tank 4-5: 241,300 bbls Tank 6: 413,200 bbls Tank 7: 421,200 bbls
Displacement Oil (diesel / fuel oil mix)	Displacement oil tank (Basin B)	Used for fuel oil line purges and cutter stock	West Tank Farm	8,100-bbl tank
Natural Gas	Pumped to facility through one 10" main and one 20" main	Burned in Power Station to produce steam	N/A (pressurized pipelines on and off site)	Boiler 1: 1.2 mmcf/hr Boiler 2: 2.2 mmcf/hr Boiler 3: 1.2 mmcf/hr Boiler 4: 3.0 mmcf/hr Boiler 5: 3.0 mmcf/hr
Liquid Caustic Soda	East of Unit 4 and at Wastewater Treatment Facility (WWTF) (Basin B and D)	Unit 4 basement and WWTF	East of Unit 4 and at WWTF	Unit 4 area: 6,000 gal. WWTF: 4,000 gal.
Liquid Sulfuric Acid	East of Unit 4 and at WWTF (Basin B and D)	Unit 4 basement and WWTF	East of Unit 4 and west side of WWTF	Unit 4 area: 6,000 gal. WWTF: 900 gal.
Fuel Oil Additive (Calcium nitrate)	East side of Unit 5 (Basin D)	East side of Unit 5	East side of Unit 5	6,000-gallon tank
Lubricating Oils	Hazmat storage area (Basin B)	Various locations inside and outside the plant	Hazmat storage area (Basin B)	Fifteen 55-gallon drums
Transformer Oil	Transformers and circuit	Transformers and circuit	Transformers and	Variable

Material	Receiving Location	Handling Location	Storage Location	Quantity/Capacity
(mineral oil)	breakers outside the plan on east side	breakers are stationary equipment	circuit breakers are oil-filled stationary equipment on east side	
Turbine Oil	Hazmat storage area (Basin B)	At each Unit in the power plant	Hazmat storage area (Basin B)	Ten 55-gallon drums
Used Oils (lube oils, fuel oils)	East of Unit 4, near stack	East of Unit 4, near stack	East of Unit 4, near stack	600-gallon tank and up to six 55-gallon drums
Low-Volume Wastewater (LVW)	Two surge tanks at LVW WWTF	Wastewater system is permanent and stationary	Two surge tanks at LVW WWTF	Two 56,000-gallon tanks
Demineralizer Regenerant & Reverse Osmosis Membrane Cleaning Wastewater	One tank east of Unit 5	Tank is permanent and stationary	East of Unit 5, adjacent to reverse osmosis unit	One 43,750 gallon tank
Metal-Cleaning Wastewater (MCW)	Two collection tanks at LVW WWTF	Wastewater system is permanent and stationary	Two collection tanks at WWTF	Two 357,000-gallon tanks
Metal-Cleaning Wastewater (MCW)	Same as MCW above	MCW treatment facility east of switching yard	Same as Treated Wastewater below	6 treatment tanks from 735 to 121,830 gallons
Treated Wastewater	Two collection tanks at LVW WWTF	Wastewater system is permanent and stationary	Two collection tanks at WWTF	Two 95,000-gallon tanks
Sodium Hypochlorite	West side of plant on	West side of plant on	West side of plant on	Two 5,000-gallon tanks

Material	Receiving Location	Handling Location	Storage Location	Quantity/Capacity
	cooling water deck	cooling water deck	cooling water deck	
Paints and Thinner	Hazmat storage area (Basin B)	Various locations inside and outside the plant	Hazmat storage area	200 gallons (mostly 1-gallon cans)
Ammonium Hydroxide	South Side of plant	South Side of plant	South Side of plant	Two 9,000-gallon tanks
Pilot Desalination Plant	North Side of plant	North Side of plant	North Side of plant	Ferric (III) Chloride (55 Gallons) Sodium Bisulfite (55 Gallons) Sodium Hypochlorite (55 Gallons) Sulfuric Acid (55 Gallons) Vitec 3000 (55 Gallons)
Carlsbad Aquafarm	North Side of plant	North Side of plant	North Side of plant	Chlorine Bleach (55 Gallons) Outboard motor oil (55 Gallons)

*Note: Hazardous materials generated on-site are discussed below under Waste Handling/Recycling.

1.4 POTENTIAL POLLUTANT SOURCES

Outside activities or operations that could affect ambient storm water quality at the Encina Power Station facility are mostly limited to maintenance activities, hazardous waste/materials storage, aboveground fuel storage, shipping and receiving, and dust/particulate generation.

Industrial Processes

Each major industrial process is described below in terms of the type, characteristics, and quantity of significant materials used in or resulting from the process. As this facility is solely used for generating electricity, it is not involved in any manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the electricity-generation process unless warranted by maintenance. It is important to note that most tanks, pipe ways, associated piping, valves, and other ancillary equipment capable of spillage, rupture, leakage, or other failure are protected by secondary containment structures. According to site interviews, each corresponding secondary containment unit provides enough capacity to hold 110 percent of the total tank volume plus the accumulation of rainfall from a 25-year, 24-hour-duration storm event.

Steam-Powered Generating Units

There are five steam-powered generating units located within the main Power Station building. These units can burn either natural gas or fuel oil as fuel. Fuel oil is used mainly as a backup fuel and, therefore, rarely is burned. Fuel oil is stored in the two tank farms located at the east and west farms of the facility. In addition, a displacement oil tank stores diesel oil.

Gas Turbine Generating Unit

A 20-MW gas turbine is located east of the main Power Station. This turbine burns natural gas or diesel oil and is used infrequently for generating additional electricity during peak-demand periods or for "black start" requirements. A small diesel tank (less than 50 gallons) is contained within turbine housing.

Wastewater Treatment Facilities

The Power Station has a wastewater collection facility, which also includes the low volume waste (LVW) on-line treatment system, and a metal cleaning wastewater (MCW) treatment facility. The LVW treatment facility is located in Basin 8 directly north of the switching yard. This facility consists of six aboveground industrial wastewater holding tanks, with capacities ranging from 56,000 gallons to 357,000 gallons, and two LVW oil/and sediment coalescers.

Station low volume wastewater is collected and routed through this facility. MCW are collected in tanks within the LVW facility prior to treatment. For treatment they are routed to the MCW treatment facility located east of the switching yard. Treated MCW is routed to two treated water holding tanks in the LVW facility for testing prior to discharge into the Power Station's outfall. The wastewater treatment facilities have secondary containment for the ASTs.

A double-walled tank located directly east of Unit 5 is used to collect and self neutralize low volume wastewater generated from the regeneration of the Station's demineralizer and reverse osmosis membrane cleanings. After neutralization, these wastewaters are routed to the LVW treatment facility for treatment and discharge into the Power Station's outfall.

Material and Waste Handling Storage Areas

Described below are the major areas associated with handling and storage of significant materials. Specific spill or leak prevention and response procedures are provided by the Spill Prevention Control and Countermeasures (SPCC) Plan and the Hazardous Material and Waste Contingency Plan. As noted above, most areas having the potential for spills, leaks, ruptures, or otherwise failure are equipped with structural secondary containment and adequate containment capacity.

Wastewater Treatment Facilities

Low volume wastewater and metal-cleaning wastewater streams are separated, collected, treated, and stored within these facilities. Wastewater discharge is in accordance with NPDES permit requirements at the LVW and MCW facilities.

Oil Recovery Area

The oil recovery area is located east of Unit 4 and north of the reverse osmosis unit. Various oils are recycled and reclaimed in the area.

Tank Farms

A total of seven ASTs store residual fuel oil in two separate locations at the Encina Station - the east and west tank farms. The total storage capacity of these tank farms is 1.7 million bbls. Each of the ASTs has a floating roof and is provided with secondary containment. Displacement oil used at the Power Station for fuel oil line purges and cutter stock is stored in an 8,100-bbl tank in the west tank farm.

Liquid Caustic Soda Storage

Liquid caustic soda is stored in two tanks. A 6,000-gallon tank is located on the east side of Unit 4 and a 4,000-gallon tank is located at the wastewater treatment facility. The caustic is used for regeneration of the demineralizer and in the wastewater treatment process.

Liquid Sulfuric Acid Storage

Liquid sulfuric acid is stored in two tanks. A 6,000-gallon tank is located on the east side of Unit 4 and a 900-gallon tank is located at the wastewater treatment facility. The acid is used for regeneration of the demineralizer and in the wastewater treatment process.

Fuel Oil Additive Storage

Calcium nitrate is used as a residual fuel oil additive. It is stored in a 6,500-gallon bulk tank east of Unit 5. The additive is injected into the fuel oil at each boiler to control stack exhaust gas pH.

Storeroom Building

Several miscellaneous hazardous materials required for Power Station operation and maintenance are stored in appropriate sections of the storeroom building (e.g., paints, cleaners, welding rods, spare parts).

Paint Shop

A small amount of various paints are held in flammable liquid lockers located in the paint shop.

Hazardous Material and Waste Storage

A storage area at the facility is dedicated to the storage of accumulated hazardous wastes and materials used exclusively by Cabrillo Power I LLC. The building contains both solid and liquid hazardous wastes and materials. The containers are segregated according to waste type (e.g., toxic solids, non-flammables, corrosives). Secondary containment at the building is provided.

Fuel Oil and Displacement Oil Loading/Unloading

Residual fuel oil is delivered to the Power Station from tankers or barges, which are moored directly offshore from the facility in the Pacific Ocean. A 20-inch submarine pipeline is used to transfer the residual oil from the tankers to storage tanks located at the Power Station. The ASTs are used to store the residual oil. Residual oil and displacement oil can be unloaded from the tankers to any of the ASTs or transferred from these tanks to vessels for shipment. Oil is drawn from the ASTs and transferred to the Power Station for firing the boilers. A small cone-roofed tank of 8,100 bbls is used to store displacement oil for displacing the residual oil in the submarine pipeline. Heat exchangers and transfer pumps are located in the displacement oil tank berm. A pumping facility, located adjacent to Tank 5, is used to transfer oil from Tanks 4, 5 and 6 to the Power Station. The truck unloading containment area is designed to divert any spilled oil or accumulated runoff into the displacement oil tank containment area. Tank trucks are required to be attended during unloading. Standard Cabrillo Power I LLC protocol mandates that visual observation for sheens and other visible pollutants be conducted prior to draining all containments surrounding tanks and equipment. If necessary, laboratory analyses may be performed for suspected contaminants in this water before drainage is authorized.

Aqua Ammonia Storage and Unloading Area

Ammonium Hydroxide is used by the Selective Catalytic Reduction (SCR) NOx reduction system that is currently installed in boilers 1 through 5. The Ammonium Hydroxide solution used at the Power Station has a concentration of 19 percent and is stored in two 9,000-gallon steel tanks that are located on the south side of the property inside containment. The unloading area is also in containment.

Pilot Desalination Plant

A 50 gallon per minute (gpm) Poseidon Resources pilot plant to test the feasibility of desalination at Encina Power Station is located in the west parking lot just east of the guard shack. The system consists of filtration media, a reverse osmosis train, and a corrosion study. Cleaning and processing chemicals are stored on secondary container pallets near the system.

Dredge Onshore Maintenance Activities

The dredge activities at Encina require the dredge and support equipment to be maintained onshore (i.e., normal repairs, cleaning, painting, overhauls, equipment change outs, etc.).

Machine Shop

A Machine Shop is located in the north east corner of the facility and contains equipment used to support facility maintenance and operation. The machine shop includes electrically powered equipment, raw metal materials, and some lubricants. The machine shop is enclosed and protected from storm water flows.

Carlsbad Aquafarm

A commercial aqua farm establishment, Carlsbad Aquafarm, Inc., resides on the north shore of the Power Station discharge pond. Processing facilities are located onshore with necessary chemicals stored in secondary containment. Growing facilities are floated in the outer basin of the Agua Hedionda Lagoon for the harvesting of shellfish, such as Mediterranean (Gallo) Mussel, Blonde Oyster, Oyster del Sol, and Golden Manila Clam. An evaluation of the bacterial effects of waterfowl related to aqua farm operations on the outer Agua Hedionda Lagoon is included in Appendix G.

Dust and Particulate Generating Activities

Industrial activities that may generate dust or particulates at the Encina Power Station are mostly associated with the Power Station exhaust stacks, gas turbines, and maintenance activities. Deposition of airborne particulates and dust occur within the facility's boundaries and generally follow a west-east distribution, which is consistent with the onshore-offshore wind patterns native to the area.

The Encina Power Station facility has been issued 11 Permits to Operate by the San Diego County Air Pollution Control District (SDAPCD). These permits have been issued for the following equipment: boilers, abrasive blasting area, metal parts coating station, emergency generator set, and dredging barge ICEs.

Significant Spills/Leaks

In accordance with the General Permit, any material or chemical spilled or leaked in significant quantities to storm water, or the release of any unauthorized non-storm water discharge, that has occurred since April 17, 1994 must be identified.

November 10 2008;

Ten to 15 gallons of vegetable oil EAL 224H spilled into the outer basin of Aqua Hedionda Lagoon when a hydraulic line on the dredge ladder broke during system pressurization. Notifications were made to National Response Corporation (NRC), the Office of Emergency Services (OES), the Regional Water Quality Control Board (RWQCB), Department of Environmental Health (DEH), California Department of Fish and Game (CDFG). Cleanup was initiated and containment boom deployed. No warnings or violations given by the U.S. Coast Guard (USCG).

September 16 2008:

Fifty gallons of residual fuel oil #6 spilled to ground due to failure of fuel transfer piping elbow. The piping was isolated, the spill contained and weld repairs were completed. Agencies notified: NRC, OES, NRC Environmental Services, USCG, CDFG, DEH.

February 24 2006:

Fifty gallons of residual fuel oil #6 spilled to ground, due to mechanical seal failure in East fuel oil tank farm pump pit. Pump valved out at 21:12 and flow stopped at 21:25. NRC cleaned up oil that was contained in the pump pit. State Emergency Response Commission was notified.

July 8 2002:

One gallon of hydraulic (vegetable oil) was released into Agua Hedionda Lagoon. An Anchor Scow used to set anchors and move vessels during dredging operations sank causing the oil sheen. The sheen was contained to a small part of the South end of the outer lagoon. The sheen was cleaned up by absorbent pads and was completely eliminated by 1730 on July 9, 2002.

July 4 2002:

An oil sheen was discovered in Agua Hedionda Lagoon. It was determined that the mineral oil came from off site through the storm water conveyance system. The oil was removed and the storm water conveyance was flushed and cleaned.

March 22, 2001

Ninety gallons of residual fuel oil was spilled as a result of maintenance operations. The fuel oil line was purged from the fuel oil line prior to maintenance; however a small amount of oil was left in the line, which was spilled when one of the flanges was removed. The spill was contained and cleaned up immediately after the incident occurred. The oil was high viscosity oil and, therefore, did not penetrate the soil. Required notifications to NRC and OES and courtesy notifications to CDFG, San Diego DEH and Carlsbad Fire Department were made.

March 15, 2000

Ninety gallons of residual fuel oil was spilled as a result of an underground pipe failing inside fuel oil tank containment. During routine inspection the operator saw oil coming to the surface. High pour point oil, therefore, no soil permeation. Required notifications to NRC and OES and courtesy notifications to CDFG, DEH and Carlsbad Fire Department were made.

November 24, 1998:

Commercial divers removed sand from the Under Sea Mooring hose string. A pin hole leak developed at end of hose releasing approx. 8 oz. of #2 diesel creating sheen on surface. Leak was stopped within 10 min. 12/4/98 the Barge Jovalon flushed the diesel out of piping, without incident, in preparation of mooring overhaul during week of 12/15. All hoses & spool pieces were replaced.

November 14, 1997:

15-20 gallons of residual fuel oil found on valve platform. Concrete containment. Not reportable. Shift Supervisor did courtesy contact to NRC.

May 20, 1997:

1-2 gallons oil globs on return line heated up hidden oil from previous 4/2/97 incident. The oil globs got into storm drain, but stopped at the permanently placed boom at site drainage point. $250.00 fine. Notification NRC, USCG, Aquafarm, CA DOHS, Hubbs Research, F&G.

May 4, 1997:

Sheen (estimated 1 teaspoon) at Dredge Vessel stem. It was vessel drive propulsion engine oil. Notified NRC, OES & USCG. $250.00 fine NOV issued.

April 25, 1997:

Cooling water Bar Rack area Lube Oil 2 gallons leaked. 1 gal. on ground, 1 gal. in water. Notification to NRC, OES, RWQCB & USCG.

April 2,1997:

Residual Fuel Oil approx. 100 gallons released to concrete (no material entered the water) from #1 & 2 Fuel Oil return line. Return line leak & 90% of oil contained on concrete slab/ containment of small amount in soil. High pour point oil, therefore, no soil permeation. Required notification NRC, OES (required notification) & courtesy notification to F&G, DEH, USCG and EPA Region 9.

Non-storm Water Discharges

A major element of storm water NPDES permitting is the elimination of non-storm water discharges to the storm water collection system. The 1997 General Permit differs from the earlier 1992 General Permit in that certain non-storm water discharges are allowed provided that the non-storm water component of the discharge complies with the following:

- Local Regional Water Quality Control Board requirements.
- Local agency ordinances and/or requirements.

- BMPs are specifically included in the SWPPP to (1) prevent or reduce pollutants in non-storm water discharges, and (2) minimize the flow or volume of non-storm water discharges.

Regular, authorized non-storm water discharges occur at the Encina Power Station. The non-storm water sources and their frequency of occurrence are shown in Table 3:

Table 3: Non-Storm Water Discharges

Source	Frequency
Fire hydrant flushing	Every six months
Irrigation	Weekly schedule concentrated from April through October
Back flow preventer testing	Annually

In addition there are non-storm water sources at the Encina Power Station that are not scheduled and occur sporadically/infrequently. These sources of non-storm water are exempt per General Permit Section D and include:

- Discharges from fire-fighting activities;
- Potable water sources, including waterline flushings;
- Drinking fountain water;
- Uncontaminated compressor or air conditioner condensate;

During routine maintenance and servicing at the Encina facility, these discharges are sometimes allowed to drain to the ground because they do not pose a potential pollution problem for storm water. However, standard protocol at Cabrillo Power I LLC facilities is to minimize and otherwise prevent any non-storm water discharges to the ground. When these discharges do occur, they are infrequent, typically of low volume, and evaporate in a short time. In addition, these discharges either are from a potable water source supplied by the City of Carlsbad or are otherwise known not to contain substances that pose a threat to storm water quality.

The potential for storm water contamination at the Encina Power Station facility from non-storm water discharges was investigated in July 1997 as part of revising this SWPPP. The methods used to perform the investigation consisted of the following:

- Observation of storm water outfalls during dry weather and normal working hours.

- Inspection of outside areas for the presence of unidentified discharge pipes.
- Review of site plans to determine whether they matched current conditions.
- Identification of the potential drainage routes where spills or leaks could occur.

Soil Erosion

Approximately 10 percent of the Encina Power Station facility is occupied by impervious surfaces (i.e., buildings, and asphalt and concrete paving. The balance of the site is unpaved and consists of either dirt or gravel surfaces, natural vegetation or landscaping. Storm water from Basin A is discharged to the hillside above the middle lagoon and has the potential to erode the slope overtime.

Should the facility site undergo modifications in the future that will involve a high potential for significant soil erosion, appropriate measures to limit erosion will be identified and implemented in accordance with the principles presented in this plan.

1.5 ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

Table 4 presents a summary of all industrial activities at the Encina Power Station facility, potential pollutant sources, potential pollutants and BMPs used to control the pollutant. The outfalls and potential source areas listed in Table 4 are shown in Figure 2.

Table 4. Assessment of Potential Pollution Sources and Corresponding Best Management Practices Summary

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Tank Farms	Storage and transfer of fuel oil, diesel oil, displacement oil and diesel fuel	• Spills and leaks during delivery and transfer • Leakage from ASTs • Failure of roof drain hose	#6 fuel oil; diesel displacement oil	• Use of secondary containment around tank farm perimeter, as well as truck unloading areas • Inspection of areas daily • Visual inspection and/or laboratory analysis of samples taken in containment areas prior to storm water discharge • Apply SPCC measures when applicable • Perform regular inspections of fueling area • Maintain spill kit in vicinity of areas in case of spill incident • Provide employee training regarding proper fueling, cleanup and spill response techniques
Storeroom/ Warehouse	Handling, storage and delivery of supplies	Spills during delivery	Small quantities of various supplies	• Apply SPCC measures when applicable • Perform regular inspections of area • Maintain spill kit in vicinity of area in case of spill incident • Provide employee training regarding proper cleanup and spill response techniques
Equipment repair area	As needed repairs of various equipment	• Metal shavings • Paints • Lubricating materials	Small quantities of various supplies used in equipment maintenance	• Train contractors using the facility's contractor safety notice program • Encourage housekeeping during and after maintenance repairs • Cover storm drains as necessary with mat during work near storm drains
Paint booth/shop	Parts and equipment painting	• Spills/leaks of paint supplies • Over spray from paint	Paints, solvents and thinners	• Use of secondary containment around paint supplies • Use of dispenser drums with containment structures • Keep containers covered and sealed • Specialized cleaner for paint gun tips
Sandblasting shack	Sandblasting of parts and equipment	Particulate generated during sandblasting activities	abrasive blast material (i.e., lead, copper)	• Use of bag house to capture particulates • Daily cleanup of booth • Prohibition of water in booth
Portable sandblasting	Sandblasting of permanent or large	Particulate generated during sandblasting	CARB approved abrasive blast	• Use of temporary enclosures to capture particulates • Use of CARB approved blast materials • Daily cleanup of work area

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
operations	structures	activities	material	• Cover storm drains as necessary
Satellite hazardous materials storage	Storage of hazardous materials and waste (e.g., waste oils)	leaks and spills	Various	• Use of secondary containment • Restricted access to personnel • Regular employee training • Regular inspections • Apply Hazardous Materials and Waste Contingency Plan when applicable • Maintain spill kit in vicinity of area in case of spill incident
Plant Maintenance shops	Welding/grinding materials	leaks and spills	Various	• Regular employee training • Daily housekeeping required
Wastewater Treatment Facilities	Wastewater treatment	Spills and leaks	metal cleaning waste	• Use of secondary containment • Use of alarms • Regular employee training • Use of SPCC plan regular inspections
Trash racks	Seaweed debris removal	Equipment leaks	oils and greases	• Regular maintenance of equipment
Hazardous materials and waste storage	Drum handling	residue on containers, leaks, spills	various	• Built in secondary containment • Use of mechanical drum handling tools • Inside storage when possible • Storm drain valve west of building closed except during rain • Inspected weekly • Apply Hazardous Materials and Waste Contingency Plan when applicable • Maintain spill kit in vicinity of area in case of spill incident
Transformers and switch yard	Transformer maintenance	leaks; maintenance activities	mineral oil (non-PCB)	• Regular equipment inspections • Personnel training • Alarms provided on sumps associated with transformer areas
Vehicle parking	Parking/driving	oil leaks	oil, antifreeze, gasoline	• Cleanup of significant stains • Spill cleanup practices
Recycle bins	Storage of waste products	leaching during rainstorms; leakage	metals shavings; oils	• Placement of roll-off bins away from storm drains • Regular housekeeping • Provide covers for bins as required

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle washing	not allowed	N/A	N/A	• N/A
Dredge onshore maintenance	Dredge maintenance, normal repairs, cleaning, painting	maintenance activities	paints, oils, metal shavings, abrasive blast materials	• Use of secondary containment • Daily housekeeping • Regular employee training • Provide covers for outdoor bins • Maintain drums on spill pallets
R O Skid	Repairs on installed equipment	maintenance activities	R O brine and product water	• Cover storm drains in the area with mats during maintenance activities
Ammonium Hydroxide	Delivery and Storage	Spills and leaks during delivery	Ammonium Hydroxide	• Use of secondary containment around perimeter of tanks, as well as truck unloading area • Inspection of areas two times per day • Visual inspection and/or laboratory analysis of samples taken in containment areas prior to storm water discharge • Apply SPCC measures when applicable • Provide employee training regarding proper truck unloading and spill response techniques
Machine Shop	Machining custom parts	Spills and leaks	metals shavings; oils	• Daily housekeeping • Regular employee training • Cleanup of significant stains • Spill cleanup practices • Maintain drums on spill pallets • Spill kit on-site
Pilot Desalination Plant	Sea water desalination	Spills and leaks	Sea water, potable water, chemicals	• Regular equipment inspections • Personnel training • Regular maintenance of equipment
Carlsbad Aquafarm	Shellfish harvesting and processing	Spills and leaks	Sea water, potable water, chemicals, oils, fecal coliform	• Regular equipment inspections • Personnel training • Regular maintenance of equipment • Bird excluders (spikes) on shellfish buoys, regularly maintained

As evidenced by the June 1997 storm water site inspection, the overall risk of contributing contaminants to storm water discharges through runoff posed by industrial activity at the Encina Power Station is considered low. The following section identifies the existing BMPs, as well as BMPs to potentially implement in the future.

1.6 STORM WATER BEST MANAGEMENT PRACTICES

The BMPs employed at the Encina Power Station can be segregated according to nonstructural controls and structural controls. Nonstructural controls generally are implemented by various personnel throughout the site, while structural controls involve a physically constructed barrier to contain potential pollutants. The following sections describe these BMPs.

Non-Structural BMPs

Non-structural BMPs or control measures include the following:

Good Housekeeping

Proper traditional "housekeeping" practices will be performed by maintenance staff so the facility is kept in a clean and orderly condition. This element of the storm water pollution prevention program is an ongoing task and is continually implemented to minimize the exposure of significant materials to storm water. Proper housekeeping practices include:

- Periodic cleanup and maximization of parts storage under roofed or covered areas.
- Sweeping of impervious surfaces.
- Proper disposal and rainfall protection techniques for spent paint cans, waste oils, etc.
- Maintenance of oil-absorbing materials in areas of potential spillage.
- Proper storage and rainfall protection techniques for potential contaminants.
- Brief employees and contractors on SWPPP efforts and potential storm water issues.

Preventive Maintenance

A preventive maintenance program involving inspection and maintenance of storm water management devices is in effect at the Encina Power Station facility. Inspection and performance of preventive maintenance at the Encina Power Station facility will be conducted annually and on an as-needed basis.

Storm water management maintenance activities performed as part of this program include the following:

- Cleaning of accumulated debris from retention basins (i.e., fuel oil pump pits, sump pump areas, conveyance structures and outfalls).
- Clearing of debris from grate drains, catch basins, diversion ditches, and drainage pipes.
- Maintenance and inspection of secondary containment structures and associated drain valves.
- Periodic inspection and maintenance of pumping equipment as needed.
- Inspection and maintenance of rainfall protection coverings for waste storage bins and receptacles.

Spill Response

The prevention of and response to spills at the Encina Power Station facility are performed according to the facility's Hazardous Material and Waste Contingency Plan and Emergency Procedures, as well as the SPCC and other response or contingency plans. In addition to these plans, other considerations regarding the identification of potential spills areas, procedures for cleaning up spills, and their potential drainage points are necessary to minimize storm water contamination.

Emergency cleanup practices at the Encina Power Station facility include the availability of spill kits and emergency collection devices or containers at strategic locations around the facility, particularly where the above-mentioned spill potentials exist. Typical components of a spill cleanup kit include, but are not limited to, dry absorbents such as pads, socks, mops, absorbing clays, portable booms or diverting structures, and appropriate personal protective equipment (PPE). These materials are maintained in clearly labeled containers at various locations around the site and are accessible to all employees.

Material Handling and Storage

Similar to the procedures for emergency spill response, material handling and storage of potentially contaminating substances is conducted in strict accordance with various plans, policies, and other associated control documents.

Employee Training

The training program for the Encina Power Station facility's Pollution Prevention Team focuses on proper preparation and response to storm events. Team members undergo storm water management training for all areas and operations at this facility. Training updates are conducted annually. New employees are provided with a program summary of storm water management practices as part of their employment orientation.

The topics addressed in the annual training program include updates to storm water pollution prevention regulations, spill response, material management practices, storm water BMPs, good housekeeping, inspection protocol and consequences of noncompliance.

Waste Handling/Recycling

The following types of hazardous waste are generated at the Encina facility.

- Oil-contaminated solid waste – e.g., oily rags, oil-contaminated dirt and/or absorbent (generated by routine maintenance/cleanup of oil leaks). This waste is held in drums or a hazardous waste bin until disposal is arranged.
- Asbestos – solid asbestos-containing insulation and lagging wastes are removed during maintenance and replaced with non-asbestos insulation. The asbestos waste is double-bagged and held at the hazardous waste bin until disposal is arranged.
- Wastewater treatment facility filter cake – the wastewater treatment facility produces solid wastes containing low concentrations of metals that are a by-product of boiler acid cleanings and fireside washes. A special hazardous waste bin is brought in on an as-needed basis for filter cake disposal.
- Empty product drums – Several 55-gallon drums from various vendors are generated through site activities. These empty drums either are returned to the vendor or are sent to a licensed drum recycler. In the interim, the drums are held at the hazardous waste building.
- Boiler fireside/soot hopper solid wastes – these wastes may contain some metals in low concentrations. They normally are removed during overhauls and are placed in hazardous waste drums or bins brought in for these jobs. They are disposed of on an as-needed basis.
- Various universal wastes – fluorescent light bulbs, alkaline batteries, lead acid batteries, aerosol cans, electronic waste

Each of these materials is managed in an environmentally conscientious manner in accordance with standard Power Station protocol and in accordance with federal, state and local regulations.

Recordkeeping and Internal Reporting

The maintenance and storage of environmental records is conducted in accordance with this SWPPP and other environmental management programs exercised by Power Station. These procedures ensure that all records of inspections, spills, maintenance activities, corrective actions, and visual observations are developed, retained, and provided, as necessary, to the appropriate facility personnel. Appropriate company communication and environmental records associated with the storm water management program can be found in the appendices of this document.

Erosion Control and Site Stabilization

Because approximately 90 percent of the Encina Power Station facility consists of pervious surfaces, sediment and erosion prevention and control measures have been implemented to maximize site stabilization including grading, stabilizing ground cover (e.g. gravel), and compaction. Should the facility site undergo modifications in the future that will involve a high potential for significant soil erosion, appropriate measures to limit erosion will be identified and implemented.

Inspections

Two types of inspections are performed at the Encina Power Station facility as part of this SWPPP: an annual formal compliance evaluation and continuous visual inspections performed by employees. The compliance evaluation is conducted once a year by the Environmental Specialist or Laboratory Technician to verify that the description of potential pollutant sources is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions; and that the controls to reduce pollutants in storm water discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. Records documenting significant observations made during the site inspection and corrective actions resulting from the inspection are retained as part of this SWPPP for 5 years.

In addition to this annual inspection, visual inspections are conducted by facility personnel who are trained to observe evidence of, or the potential for, pollutants to enter the drainage system from equipment, or materials handling and storage areas. If only minor corrective actions are needed, they are performed immediately and not reported. If more extensive actions are required, the shift supervisor is to be notified, and he or she in turn notifies the Plant Manager. Records of visual inspections and corrective actions also are retained for 5 years. Guidelines used in these informal inspections are presented in the Table 5, as well as in the multiple log forms provided in Appendix A.

Non-storm water discharge inspections and observations are performed quarterly at all potential discharge locations and containment areas. In addition, storm water discharge visual observations are performed at each discharge and run-on location (Figure 2) for at least two storms per year to detect indications of contaminants. If indications of contaminants exist, the source is investigated and action taken to reduce pollutants in the discharge.

Quality Assurance

The procedures employed at the Encina Power Plant facility to ensure that all elements of this SWPPP and Monitoring Program are adequately conducted include:

- Monitoring program quality assurance/quality control activities (details provided in Appendix D).
- Recordkeeping practices (see "Recordkeeping and Internal Reporting" Section above)
- Employee training programs (see "Employee Training" Section above)
- Regular site inspections (see "Inspection" Section above)

Structural BMPs

In addition to the non-structural BMPs identified above, specific structural BMPs are implemented at the Encina Power Station facility. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and other non-authorized discharges. These are described below.

Overhead Coverage

Structures that provide overhead, horizontal coverage of significant materials in order to prevent contact with storm water are in use at the following areas;

- Machine shop
- Maintenance Shop
- Paint Area
- Storeroom/Warehouse
- Paint Booth
- Sandblasting Shack

Secondary Containment Structures

Structural containment is provided for all tanks and most areas throughout the facility that are prone to potential spills, leaks, or ruptures. In areas where significant materials are stored outside without rainfall protection, secondary containment in these areas provides for the largest single container or tank and runoff from a 24-hour, 25-year return period storm. All secondary containment structures are outfitted with manually controlled discharge valves, warning signs, and remained locked at all times. Inspection and maintenance procedures are tailored to maintain these BMPs in meticulous condition and strictly regulate the authority for any releases.

Hazardous Waste/Materials Storage

This facility is sloped to contain spills. Management practices for this less-than-90-day storage facility mandates that significant precautions be employed to mitigate leaks or spills, and that the potential for release to the storm water conveyance system is mitigated.

Spill Kits

Equipment for emergency spill response is provided via spill kits situated in strategic locations throughout the facility. These are also supplied with PPE to safeguard response personnel when using absorbents and emergency response equipment. Additionally a containment berm is permanently deployed at the discharge point from Basin B.

Potential BMP Developments

In addition to the existing material management techniques employed at the Power Station facility, other potential BMPs may be appropriate in the future as conditions warrant. If required, the BMPs identified below, which are based on 1997 observations, would serve to further enhance storm water quality. As such, the implementation of these BMPs is contingent on the effectiveness of existing storm water controls.

The results of future annual inspections will determine whether the BMP developments below are necessary based onsite conditions and whether they can be accommodated without significant fiscal and staff-related impacts.

1. All drain inlets should be checked, cleared of accumulated debris, and maintained to ensure that significant debris buildup does not occur.
2. Sand bags or other erosion control devices will be placed in areas subject to heavy debris buildup as appropriate.
3. Periodically remove landscaping waste piles in Basin B (H-6) and control upgradient erosion with sand bags to minimize sediment buildup in the wastewater treatment plant area.

4. Remove/clean areas where minor spills have occurred (H-16) and areas showing spill/leakage and or stains (B-18). Avoid outside spray painting.
5. Minimize storage of waste drums outside maintenance shop (B-20) and conduct routine dry sweeping and vacuuming to collect welding/other particulates.
6. Provide "soft" berming, sand bags, telephone poles, or other containment devices around the dredging operation area and adjacent to the lay down area to control erosion/sediment dispersion (B-13 through B-18; C-18). Provide a portable sandbox or other suitable method to collect welding slag, cutting debris and spent welding rods where such outside activities are conducted.
7. Grated drain inlets that are situated within unpaved, dirt areas show signs of minor erosion and the subsequent introduction of sediments to the storm water conveyance system. For these areas, sand bags or suitable alternatives are suggested to reduce the velocity of inflow at the grate and provide a physical barrier for minimizing solids input. Flow dissipaters, such as rock/gravel diffuser systems, could also be employed at a number of locations throughout the site, primarily at offshoot diversion structures from driveways.
8. Brief contractors or other temporary onsite personnel on the need to consolidate or remove unnecessary equipment and waste materials from District Operations lay down area in northeast section of Basin B.
9. The employee parking area should be cleaned on an as needed basis using dry methods (absorbents and subsequent sweeping and collection) to eliminate accumulated oils, grease, and other automobile contaminants.

1.7 ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

In accordance with Section §A.9 of the General Permit, a comprehensive site compliance evaluation must be conducted at least once per year. Evaluations are to be conducted within 8 to 16 months of each other. A formal site inspection shall be conducted annually by a member of the Pollution Prevention Team to verify that the controls to reduce pollutants in storm water discharges identified in this SWPPP are adequate and properly implemented. If it is determined that existing control measures are not adequate, additional control measures will be recommended and implemented within 90 days of the evaluation.

The site evaluation will include a review of all visual observation records, inspection records, and sampling and analysis records. Site inspection and corrective action records produced under this program shall be retained for 5 years and should be archived in the appendix of this document. Inspections will be used to verify that best management practices are in place, including structural and nonstructural controls. Recommendation of additional or modifications to storm water controls, evaluation of good housekeeping techniques, and verification of erosion prevention will also be included as part of the annual compliance evaluation. A site inspection log sheet is shown as Form I in Appendix A. The annual review of the SWPPP and changes made as a result of the annual compliance evaluation should be recorded on Form II (Appendix A).

The Encina Power Station SWPPP will be reviewed and compliance with it determined based on the annual compliance evaluation. If conditions throughout the facility comply with the SWPPP, a certification to that effect will be signed by the Plant Manager or other principal executive officer (see Appendix A, Form III). Should management status of the facility change either by retirement, promotion, or otherwise, a new authorization must be attached to the SWPPP prior to submittal of any reports, certifications, or information signed by the person responsible.

Form I, Form II, and the signed certification constitute all of the required elements of the Evaluation Report outlined in Section A9d of the General Permit. The Evaluation Report shall be submitted as part of the Annual Report.

SECTION 2 STORM WATER MONITORING PROGRAM AND REPORTING REQUIREMENTS

This storm water sampling plan and monitoring program has been developed in accordance with the State Water Resources Control Board's Storm Water Monitoring and Reporting Requirements as stated in Section B of the Industrial Activities Storm Water General Permit published April 17, 1997. The Encina Power Station facility has complied with state storm water monitoring and reporting requirements since the date of enactment of the first General Permit (No. 91-013-DWQ; amended on September 1992).

The goals and objectives of the monitoring program for Cabrillo Power I LLC Encina Power Station facility are to:

- Provide visual observation methods and guidelines for dry- and wet-weather inspections.
- Provide guidelines for complying with the discharge prohibitions specified in the General Permit.
- Ensure practices at the facility to control pollutants in storm water discharges and authorized non-storm water discharges are evaluated and revised to meet changing conditions.
- Aid in the implementation and revision of the SWPPP.
- Measure the effectiveness of BMPs in removing or reducing pollutants in storm water discharge and authorized non-storm water discharges.

The storm water monitoring program consists of three main elements:

- Non-storm Water Discharge Visual Observations
- Storm Water Discharge Visual Observations
- Sampling and Analysis

Each of these elements is described below. Results of these monitoring elements must be documented in the Annual Report submitted to the RWQCB due by July 1 of each year (refer to Appendix B for Annual Reports). All monitoring records must be maintained for a period of 5 years.

Conducting this monitoring program involves the collection of information and storage of records pertaining to site inspections, field observations, weather conditions, compliance evaluations, and other applicable information. Several forms have been developed specifically for this program to assist in its implementation. Therefore, to simplify the presentation of this material, all examples of inspection, observation, and other log forms are presented in

Appendix A. The forms presented in Appendix A may be modified to suit the changing needs of the facility as appropriate.

An overview to the duties and responsibilities of personnel for each storm water monitoring program element are summarized in Table 1, presented in the early sections of this SWPPP.

2.1 NON-STORM WATER DISCHARGE - VISUAL OBSERVATIONS

In accordance with Section B.3 of the General Permit, "facility operators" must visually observe all drainage areas within their facilities for the presence of unauthorized non-storm water discharges and must visually observe the facility's authorized non-storm water discharges and their sources. These visual observations must occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours. Quarterly visual observations must be conducted in each of the following periods: January-March, April-June, July-September; and October-December. The quarterly visual observations must be conducted within 6 to 18 weeks of each other.

The visual observations made must document the presence of any discolorations, stains, odors, floating materials, etc. as well as the source of any discharge. Records must be maintained of (1) the visual observation dates, (2) locations observed, (3) observations, and (4) response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.

For areas that are detected to have offsite run-on, the source of run-on should be traced to the source and corrective action taken. Refer to "Non-storm Water Discharges" presented earlier in the Storm Water Pollution Plan section for allowable non-storm water discharges. Those found to be of an unauthorized nature should be immediately eliminated. Adjacent property owners, or operators of equipment on adjacent property that cause non-storm water discharges to flow onsite should be immediately notified to halt such activities or implement corrective measures. Should initial attempts to resolve such offsite run-on conditions, the San Diego RWQCB can be notified if appropriate.

A site inspection log sheet is shown as Form IV in Appendix A. The annual review of the SWPPP and changes made as a result of the annual site inspection should be recorded on Form II (Appendix A).

2.2 STORM WATER DISCHARGE - VISUAL OBSERVATIONS

Facility operators must visually observe storm water discharges from one storm event per month between October 1 and May 30, during which wet weather is expected. The visual observations must occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water must occur at the time of the release. Visual observations are only required of storm water discharges that occur during daylight hours that are preceded by at least three working days without storm water discharges and that occur during scheduled facility operating hours. The three working days may be separated by non-working days provided no storm water discharge occurs during the non-working days. The visual observations must document the presence of any floating or suspended material, oil and grease, discolorations, turbidity, odor and source of any pollutants.

Records must be maintained of (1) the visual observation dates, (2) locations observed, (3) observations, and (4) response taken to reduce or prevent pollutants in storm water discharges.

Guidelines for conducting the visual observations are presented on Form VI in Appendix A. The annual review of the SWPPP and changes made as a result of the annual site inspection should be recorded on Form II (Appendix A).

2.3 WET-SEASON SAMPLING AND ANALYSIS

This section summarizes the wet-season sampling program, including when sampling must occur, the locations to be sampled, analytical requirements, and includes a list of constituents to be analyzed.

Sampling locations (Figure 2) were selected at the Encina facility when the initial SWPPP was developed (Geocon, 1992). Sampling points were selected to sufficiently represent industrial characteristics upstream and avoid repetition in redundant sampling. A total of five representative wet-weather sampling points were chosen to characterize the Encina Power Station facility. The analytical parameters for each sampling location are based on the industrial activity occurring in each of the defined basins.

Wet-Season Sampling Criteria

The Encina Power Station facility is required to collect samples and perform visual observations during daylight hours only if significant storm water discharges commence during scheduled facility operating hours.

The sampling requirements for wet-season conditions are as follows:

- Samples of storm water runoff must be collected from the five storm water discharge sampling locations and analyzed from the first storm event of the "wet season" and at least one other storm event in the wet season. Facility personnel that do not collect samples from the first storm event of the wet season are still required to collect samples from two other storm events of the wet season and must explain in the Annual Report why the first storm event was not sampled.
- A minimum of three working days of dry weather must have elapsed from the end of the previous rainfall event to collect a valid storm water runoff sample. The three

working days may be separated by non-working days provided no storm water discharge occurs during the non-working days.

- A grab sample must be taken during the first hour of the discharge. The intent of the grab sample is to collect runoff during the initial flush. If obtaining a grab sample during the first hour is impracticable, the grab sample can be taken as soon as practicable thereafter. An explanation must be provided in the annual monitoring reports as to why the grab sample could not be taken in the first hour of rainfall. (See exemption criteria below.)

- Sampling of stored or contained storm water must occur at the time the stored or contained storm water is released.

- Storm water discharge samples may be collected either manually or with automatic water sampling devices. A grab sample will be collected from representative locations of each storm water outfall during a rainfall event.

Sample Analyses

As stated in §B.5.c. of the General Permit, each wet-season storm water sample shall be analyzed for the following parameters:

1. Total suspended solids (TSS), pH, specific conductance, and total organic carbon (TOC). Oil and grease may be substituted for TOC; and
2. Toxic chemicals and other pollutants that are likely to be present in storm water discharge in significant quantities. If these pollutants are not detected in significant quantities after two consecutive sampling events, the facility operator may eliminate the pollutant from future sample analysis until the pollutant is likely to be present again; and
3. Other analytical parameters are listed in Table D (i.e., specific to the industry and in accordance with the Standard Industrial Classification (SIC) code associated with that industry). For the Encina Power Station, the applicable SIC code is 4911 ("Steam Electric Power Generating Facilities"), which mandates an analysis for iron in storm water samples. Facility operators are not required to analyze a parameter listed in Table D when the parameter is not already required to be analyzed pursuant to Section B.5.c.i. and ii. or B.6 of the General Permit and either of the two following conditions are met: (1) the parameter has not been detected in significant quantities from the last two consecutive sampling events, or (2) the parameter is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation of the facility's industrial activities, potential pollutant sources and SWPPP. Facility operators that do not analyze for the applicable Table D parameters shall certify in the Annual Report that the above conditions have been satisfied.

As specified by General Permit §B.6, facilities subject to federal storm water effluent limitations must also collect and analyze two storm water samples for any pollutant specified by 40 CFR Subchapter N. Based on recent discussion with the Region 9 of the Environmental Protection Agency, Steam Electric Power Generating facilities are subject to additional storm water sampling requirements (and subsequent requirements of General Permit §B.6) if storm water runoff from coal piles exists and/or the facility is currently subject to federal storm water effluent limits (E. Bromley, personal communication 1997). From the results of the 1997 Encina Power Station site audit, the interpretation of 40 CFR 423, and discussions with federal regulators, this facility is not subject to General Permit §B.6. A copy of 40 CFR 423 has been included in Appendix C as support and reference material.

Thus, storm water samples collected at the Encina Power Station must be analyzed for:

- pH
- TSS
- Specific conductance
- Oil and grease
- Iron (General Permit Table D)

Wet-Weather Sampling Locations

Storm water permit regulations require the collection of runoff samples from all industrial areas where storm water is discharged that represent the quality and quantity of the facility's storm water discharges from the storm event (General Permit §B.7.). However, if a facility discharges storm water at multiple locations, the discharger may sample a reduced number of locations if different locations are substantially identical, or, in the alternative, may collect samples from each substantially identical drainage area and analyze a combined sample from each substantially identical drainage area. Facility operators must document such a determination in the Annual Report.

If the facility's storm water discharges are commingled with run-on from surrounding areas the facility operator should identify other visual observation and sample collection locations that have not been commingled by run-on and that represent the quality and quantity of the facility's storm water discharges from the storm event.

The locations for wet-weather sampling designated below are areas that are associated with storm water runoff, which have the potential to contain pollutants:

Basin A:The storm drain inlet depicted as A-1 on Figure 2. East tank farm drainage goes to Basin A and is sampled at location A-2 prior to discharge which may be after a storm event has concluded.

Basin B: The outlet to the drainage channel depicted as B-1 contains storm water from the area adjacent to the southeast portion of the Power Station and from off site. The sample location is shown on Figure 2.

Basin C: One of the three locking inlets located in the fuel tank farm shown as C-1, C-2, and C-3 on Figure 2. Samples will only be collected from these locations prior to opening the locked valves, which may be after the storm event has concluded.

Basin D: This basin covers the Power Station and surrounding area and storm water discharge from this basin are covered under a separate NPDES permit. A sample will be collected from the inlet depicted as D-1 on Figure 2.

Basin E: Basin E contains the employee parking, administrative building and maintenance building. This basin is exempt under the current regulations and a sample will not be collected from Basin E.

Basin F: Basin F consists of the dredge dock structure, an access road, and desalination pilot project. A Sample will be collected at location F-1 as shown on Figure 2.

Refer to Figure 2 for graphic depictions of these sampling locations and to Appendix D for specific procedures to follow when sampling.

Visual Observation and Sample Collection Exemptions

In accordance with General Permit §B.8., the following exceptions to the mandatory visual observation and sample collection requirements are allowed:

1. A facility operator is not required to collect a sample and conduct visual observations when:

    - ➢ Dangerous weather conditions exist, such as flooding, electrical storm, etc.
    - ➢ Storm water discharges begin after scheduled facility operating hours.
    - ➢ Storm water discharges are not preceded by three working days without discharge.
    - ➢ Storm water discharges do not occur during daylight hours.

2. A facility operator may conduct visual observations and sample collection more than 1 hour after discharge begins if the facility operator determines that the objectives of the observation and sampling program will be better satisfied.

If any of these exceptions are employed, then an explanation for the exception must be provided in the Annual Report.

Monitoring Methods

The methods employed for the monitoring program have been selected to satisfy storm water pollution control objectives and to provide observation and sampling data from each storm water basin on the site. The rationale and description of the visual observation methods, sampling methods, locations, and frequency are described in the protocols above. Additional details including analytical methods and corresponding method detection limits used to analyze pollutants in storm water discharges is presented in Appendix D.

All monitoring methods described in this plan include, incorporate, or reference the following requirements:

- All sampling and sample preservation must be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).
- All monitoring instruments and equipment must be calibrated and maintained in accordance with the manufacturer's specifications to ensure accurate measurements.
- All laboratory analyses must be conducted according to test procedures under 40 CFR Part 136, unless otherwise specified by the General Permit or the Regional Board.
- All metals must be reported as total metals.
- All laboratory analyses must be conducted at a laboratory certified for such analyses by the State Department of Health Services (with the exception of analyses conducted by facility operators whose staff is properly qualified to perform the test procedures).

Sampling and Analysis Exemptions and Reductions

In accordance with §B.12.b. of the General Permit, a facility operator may reduce the number of sampling events required to be sampled for the remaining term of the General Permit if certification of the following conditions is provided:

1. Samples have been collected and analyzed from a minimum of six storm events from all required drainage areas;
2. All prohibited non-storm water discharges have been eliminated or otherwise permitted;
3. The facility has been in compliance with the terms of the General Permit for the previous two years;
4. The facility's storm water discharges and authorized non-storm water discharges do not contain significant quantities of pollutants; and

5. Conditions (2), (3) and (4) above are expected to remain in effect for a minimum of one year after filing the certification.

Facility operators must collect and analyze samples from two additional storm events during the remaining term of this General Permit in accordance with Table 4 below. Samples must be collected during the first storm event of the wet season. If samples cannot be collected during the first storm event of the wet season, samples must be collected from another storm event during the same wet season. If samples cannot be collected in the wet season, must collect the samples from another storm event in the next season. The annual report must include an explanation of any sampling that could not be performed during the wet season.

Table 5. Reduced Monitoring Sampling Schedule

Facility Operator Filing Sampling Reduction Certification By	Samples Shall be Collected and Analyzed in these Wet Seasons	
	Sample 1	**Sample 2**
September 1, 1997	October 1, 1997 - May 31, 1998	October 1, 1999 - May 31, 2000
September 1, 1998	October 1, 1998 - May 31, 1999	October 1, 2000 - May 31, 2001
September 1, 1999	October 1, 1999 - May 31, 2000	October 1, 2001 - May 31, 2002
September 1, 2000	October 1, 2000 - May 31, 2001	October 1, 2002 - May 31, 2003
September 1, 2001	October 1, 2001 - May 31, 2002	October 1, 2003 - May 31, 2004
September 1, 2002	October 1, 2002 - May 31, 2003	October 1, 2004 - May 31, 2005
September 1, 2003	October 1, 2001 - May 31, 2004	October 1, 2003 - May 31, 2006
September 1, 2004	October 1, 2001 - May 31, 2005	October 1, 2003 - May 31, 2007
September 1, 2005	October 1, 2001 - May 31, 2006	October 1, 2003 - May 31, 2008
September 1, 2006	October 1, 2001 - May 31, 2007	October 1, 2003 - May 31, 2009
September 1, 2007	October 1, 2001 - May 31, 2008	October 1, 2003 - May 31, 2010
September 1, 2008	October 1, 2001 - May 31, 2009	October 1, 2003 - May 31, 2011
September 1, 2009	October 1, 2001 - May 31, 2010	October 1, 2003 - May 31, 2012
September 1, 2010	October 1, 2001 - May 31, 2011	October 1, 2003 - May 31, 2013
September 1, 2011	October 1, 2001 - May 31, 2012	October 1, 2003 - May 31, 2014
September 1, 2012	October 1, 2001 - May 31, 2013	October 1, 2003 - May 31, 2015

Alternative Monitoring Procedures

Alternative monitoring procedures to those presented above are allowed (e.g., composite sampling) providing that the procedures meet monitoring program objectives and the Regional Board has reviewed the proposed procedures and justification and has approved the alternative plan. The alternative monitoring program must be submitted for approval to:

San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123
(858) 467-2952

2.4 RECORDS

Detailed records must be maintained to provide quality assurance/quality control (QA/QC) for a storm water monitoring program. Records of all storm water monitoring information and copies of all reports required by the General Permit must be retained for a minimum of 5 years from the date of the observation, measurement, or report. These records must include:

- Date, place, time, and individual(s) who performed the site inspections, sampling, visual observations and/or measurements, and if appropriate, sampling data;
- Date, time, and individual(s) who performed the chemical analyses; if appropriate;
- Analytical techniques or methods used, method detection limits, and the results of such analyses; if appropriate;
- QA/QC information;
- Non-storm water discharge inspections and visual observations and storm water discharge visual observation records;
- Visual observation and sample collection exception records;
- All calibration and maintenance records of onsite instruments used;
- All sampling and analysis exemption and reduction certifications and supporting documentation;
- The records of any corrective actions and follow-up activities that resulted from the visual observations.

The majority of this information will be archived in field logs, and other supporting information documents.

Originals of individual field observation logs, noncompliance reports, annual reports, and other pertinent information should be archived in this SWPPP and maintained by the Encina Power Station facility's Pollution Prevention Team. The Pollution Prevention Team office will serve as a central record keeping location for all storm water management procedures that were followed.

2.5 ANNUAL REPORT

An annual report must be submitted by July 1 of each year to the Executive Officer of the San Diego Regional Board. It is recommended that preparation, collation of support materials, and technical evaluation of results commence no later than six weeks prior to the due date.

The report will include a summary of visual observations and any sampling results, an evaluation of the visual observation and sampling and analysis results, laboratory reports, the Annual Comprehensive Site Compliance Evaluation Report, information regarding exceptions to visual observations and sample collections throughout the year, any required records, and the method detection limit of each analytical parameter. Annual Reports should be archived in Appendix B.

The Annual Report will be signed and certified in accordance with the certification statement below.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

All records shall be retained on site for a period of at least five years, by a member of the Pollution Prevention Team.

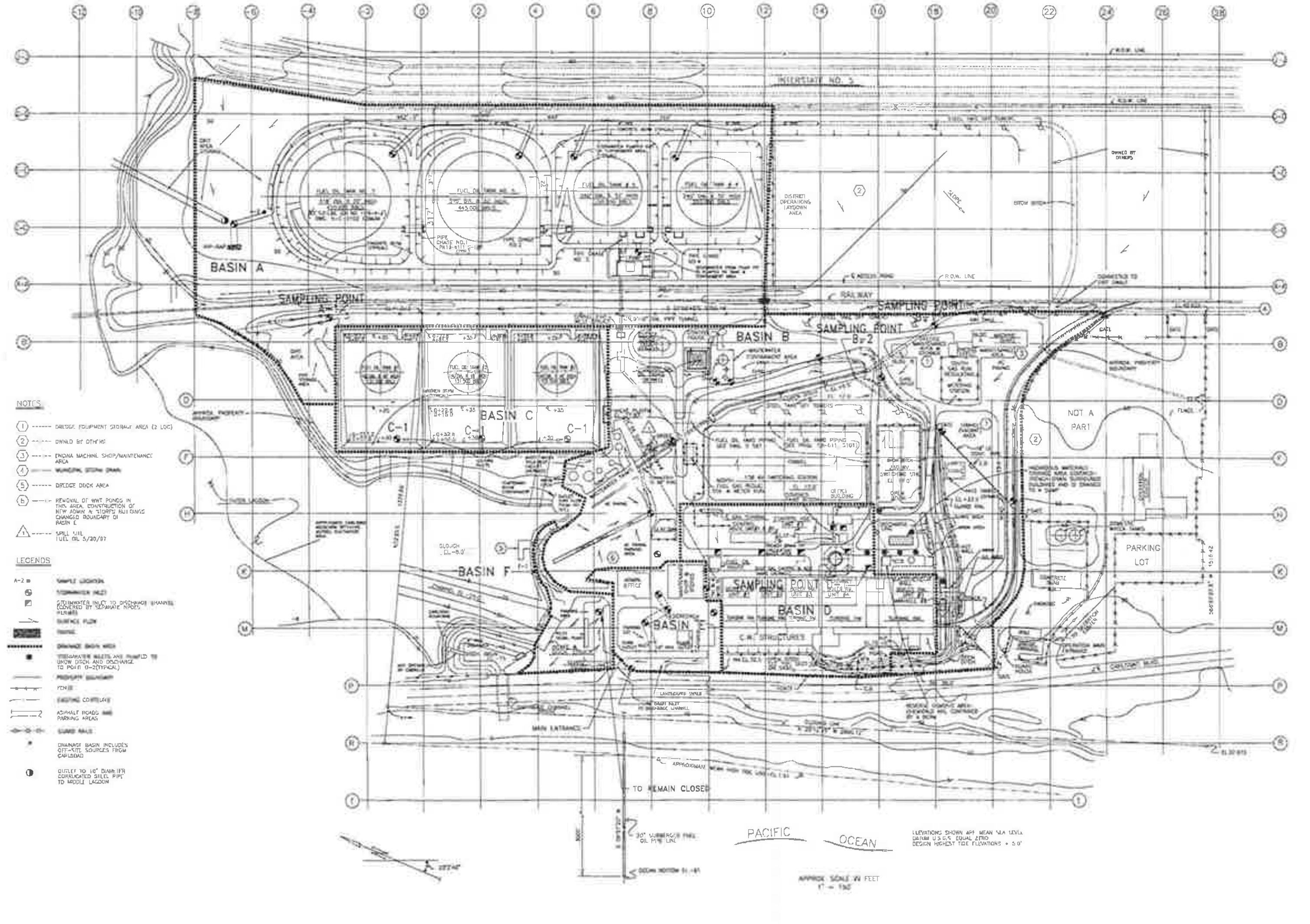
SECTION 3 REFERENCES

Bromley, Eugene. 1997. Storm water coordinator for EPA Region 9. Personal communication with Jack Stoecker of Brown and Caldwell, July 10.

Geocon Environmental Consultants. 1992. Encina Facility: SWPPP, Monitoring Program, Records, October.

NOAA (National Ocean and Atmospheric Administration). 1991. Climatological Data, Annual Summary, California, 1991. Volume 95, number 13.

APPENDIX E



NOTES

① ------ DREDGE EQUIPMENT STORAGE AREA (2 LOC)
② ------ OWNED BY OTHERS
③ ------ ENCINA MACHINE SHOP/MAINTENANCE AREA
④ ------ MUNICIPAL STORM DRAIN
⑤ ------ DREDGE DOCK AREA
⑥ ------ REMOVAL OF WWT PONDS IN THIS AREA. CONSTRUCTION OF NEW ADMIN & STORES BUILDINGS CHANGED BOUNDARY OF BASIN E
△1 ------ SPILL SITE FUEL OIL 5/20/87

LEGENDS

A-2 ■	SAMPLE LOCATION
◕	STORMWATER INLET
◩	STORMWATER INLET TO DISCHARGE CHANNEL (COVERED BY SEPARATE NPDES PERMIT)
→	SURFACE FLOW
▨	PAVING
▪▪▪▪▪	DRAINAGE BASIN AREA
■	STORMWATER INLETS ARE PUMPED TO BROW DITCH AND DISCHARGE TO POINT B-2(TYPICAL)
―	PROPERTY BOUNDARY
―x―	FENCE
― · ―	EXISTING CONTOURS
═	ASPHALT ROADS AND PARKING AREAS
―o―o―	GUARD RAILS
•	DRAINAGE BASIN INCLUDES OFF-SITE SOURCES FROM CARLSBAD
◐	OUTLET TO 18" DIAMETER CORRUGATED STEEL PIPE TO MIDDLE LAGOON

REVISIONS

M	N	P	R	S	T	U	V	W	X	Y
		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	REVISED PER STORMWATER [illegible]	REVISED PER NEW UPDATES [illegible]	[illegible]	REVISED STORMWATER POLLUTION PREVENTION PLAN	REVISED TITLE AND INFORMATION	ADDED [illegible]	ADDED [illegible]	[illegible]	ADDED [illegible]	[illegible]
DWN: GEOCON 1992 CHK'D: GEOCON 1992 APPD: APPD:	DWN: FTS CHK'D: APPD: APPD:	DWN: FTS CHK'D: APPD: D. WALLER APPD:	DWN: CHK'D: APPD: APPD:	DWN: FTS CHK'D: DTC APPD: APPD:	DWN: FTS CHK'D: DTC APPD: APPD:	DWN: SH 6/13/02 CHK'D: KM 6/13/02 APPD: APPD:	DWN: SH CHK'D: KM APPD: APPD:	DWN: SH CHK'D: APPD: APPD:	DWN: SH CHK'D: APPD: APPD:	DWN: CHK'D: APPD: APPD:

SEAL

AUTOCAD VERSION 2008		
CAD REFERENCE FILE: S97Y0023.DWG		
[illegible]	[illegible]	DATE
DRAWN	RL	10/17/73
CHECKED	RL	10/12/73
APPROVED	SPG	10/12/73
APPROVED	SPG	10/12/73
W.O		
REF. PROJECT No.		
POWMS EQUIP NO 825 . 020 . XXXX		

CABRILLO POWER I LLC

FACILITY ENCINA POWER STATION

STORMWATER
POLLUTION PREVENTION PLAN
(FIGURE 2)

PROJECT No	DRAWING No	REV
13-7292	S-451	Y
	SHEET: 1	