WATER RECLAMATION
SOLID WASTE MANAGEMENT

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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JAMES F. STAHL
Chief Engineer and General Manager

MAR 29 2002

File No: 20-04.01-55

Mr. Harold J. Singer, Executive Officer
California Regional Water Quality Control Board
Lahontan Region - Victorville Branch
15428 Civic Drive, Suite 100
Victorville, CA 92392-2359

Dear Mr. Singer:

Palmdale Water Reclamation Plant
WQCB Order No. and 6-00-57
Monitoring and Reporting Program No. 00-57
WDID No. 6B190107069
Annual Monitoring Report 2001

Enclosed please find the 2001 Annual Monitoring Report for the Palmdale Water Reclamation Plant. This report provides a concise summary of monitoring data and events which occurred during 2001.

Very truly yours,

James F. Stahl

Jose A. Saez
Supervising Engineer,
Monitoring Section

JAS:BC:ras
Enclosure

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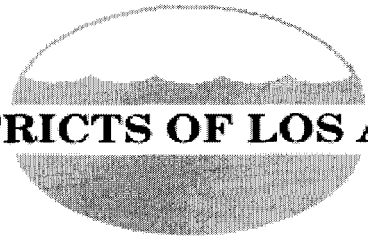
PALMDALE WATER RECLAMATION PLANT

ANNUAL MONITORING REPORT

2001

RWQCB ORDER NO. 6-00-57
MONITORING & REPORTING PROGRAM NO. 00-57



SANITATION DISTRICTS OF LOS ANGELES COUNTY

PALMDALE WATER RECLAMATION PLANT
ANNUAL MONITORING REPORT

2001

RWQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

County Sanitation Districts
of Los Angeles County

Copies of this report have been sent to:

USEPA
Region IX
75 Hawthorne Street
San Francisco, CA 94105

California State Department of Health Services
Attn: Ms. Vera Melnyk Vecchio, District Engineer
Drinking Water Field Operations Branch
1449 West Temple Street, Suite 202
Los Angeles, CA 90026

County of Los Angeles Department of Health Services
Attn: Mr. Richard Wagener, Acting Bureau Director of Environmental Protection
2525 Corporate Place, Room 150
Monterey Park, CA 91754

L.A. County Dept. of Public Works
Attn: Mr. Rod Kubomoto
Waste Management Division, 7th Floor
P. O. Box 1460
Alhambra, CA 91802-1460

Mr. Anthony P. Baal
1809 East Avenue Q13
Palmdale, CA 93550

Mr. Lewis Trout
Los Angeles World Airports
Palmdale Regional Airport
39516 North 25 St., E.
Palmdale, CA 93550-2158

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CHAPTER 1

PERMIT COMPLIANCE AND RECLAIMED WATER USE REPORT

CHAPTER 1

PERMIT COMPLIANCE AND RECLAIMED WATER USE REPORT

1.1 INTRODUCTION

This report contains the annual report for the Waste Discharge Permit held by the Palmdale Water Reclamation Plant (WRP) for the year 2001.

1.2 PERMIT REQUIREMENTS

Waste Discharge and Monitoring and Reporting Requirements

1. The waste discharge requirements for the Palmdale WRP from the California Regional Water Quality Control Board, Lahontan Region (RWQCB), is Board Order No. 6-00-57, which was adopted on June 14, 2000 by the RWQCB.

1. The monitoring and reporting requirements for the Palmdale WRP is the Revised Monitoring and Reporting Program No. 00-57, as revised on June 14, 2000 by the RWQCB.

This report satisfies the annual reporting requirements under Board Order Nos. 6-93-18 and 6-00-57, and Monitoring and Reporting Program Nos. 93-18A2 and 00-57.

Compliance Discussion

The waste discharge requirements adopted on June 14, 2000 include over 9,000 numeric limitations that must be met each year based on quantitative results of final effluent and receiving water sampling and analysis. During 2001, the Palmdale WRP met these limits with greater than 99 percent success.

Average and Daily BOD_5

The 30-day average limit of 30 mg/L for secondary effluent soluble BOD_5 was exceeded during April, May, and November with values of 42, 37, and 46 mg/L, respectively. In addition, the daily limit of 45 mg/L for secondary effluent soluble BOD_5 was exceeded on April 24, May 8 and 15, and November 8 and 27 with values of 73, 49, 53, 47, and 90 mg/L, respectively.

The most probable cause of the BOD_5 exceedances was the presence of nitrifying bacteria in the samples. As a result of significant populations of nitrifying bacteria in the secondary effluent, higher BOD_5 values are generated due to the production of nitrogenous BOD_5 (from the oxidation of ammonia to nitrate). Analysis of the April, May, and November data from Palmdale WRP has demonstrated that most of the oxygen demand was due to nitrification. For example, analyses of soluble carbonaceous biochemical oxygen demand ($CBOD_5$) for 2001 showed a range in $CBOD_5$ from 2 to 10 mg/L and an annual average of 4 mg/L. This demonstrates that most of the BOD_5 demand was due to nitrification.

Effluent pH

On August 8 and September 5, the pH of the unchlorinated effluent exceeded the upper limit of 9.0 specified in Effluent Limitation I.A.3 with values of 10.4 and 9.5 pH units, respectively. These incidents were the result of biological activity in the oxidation ponds. Carbon dioxide dissolved in water forms carbonic acid, which lowers the pH. In oxidation ponds, photosynthetic metabolism of algae removes carbon dioxide from solution, which results in a natural increase in pH. Because photosynthesis is a function of solar intensity, effluent pH exhibits both a diurnal cycle (increasing during the day and decreasing at night) and a seasonal cycle (higher in summer and lower in winter). The ponds were designed to be facultative (typical pH range: 6.0-9.0) and have an anaerobic sludge layer on the bottom where carbon dioxide is produced as the solids break down. In the summer, the ponds tend to become more aerobic. Aerobic ponds have a higher rate of algae production, utilize more carbon dioxide and produce higher pH effluent. Thus, as winter approaches and the days become shorter, pH levels tend to decrease. Therefore, while the pH limit was exceeded on 2 days, both exceedances were the result of the natural biological conditions in the oxidation ponds.

Monitoring and Reporting Discussion

Groundwater Monitoring

In early 2001, the Districts rehabilitated all the monitoring wells by cleaning, and replacing the old pumps with new monitoring pumps in all the monitoring wells, except MW3. After the rehabilitation work was completed, the groundwater monitoring program for monitoring wells and water supply wells continued throughout 2001. Monitoring well MW3 was out of service throughout 2001 and will be destroyed and replaced in 2002. MW19 failed to operate after the first quarter sampling event. Several of the lysimeters did not generate any samples due to their inability to sustain sufficient vacuum in their suction lines.

During 2001, a Corrective Action Plan, an Effluent Management Plan, and a Farm Management Plan were submitted as required by the new permit to investigate and mitigate groundwater quality concerns. The RWQCB approved these plans on March 30, 2001 and the Districts began implementing them in 2001.

1.3 BIOSOLIDS MANAGEMENT

Approximately 2.205 MG of digested biosolids were conveyed to the drying beds during 2001. This quantity is equivalent to 290 dry tons of biosolids. It is estimated that approximately 384 tons of dried biosolids were added to the stockpile during 2001. Approximately 714 dry tons of biosolids were removed from the site during 2001 for off-site composting.

1.4 OPERATIONAL AND MAINTENANCE ACTIVITIES

Palmdale WRP operates on-site oxidation ponds. Pond 1 has been out of service for over 5 years due to a damaged effluent pipeline. Pond 1 will remain off-line (out of service) until the need for additional oxidation capacity arises in the future.

Ponds 4 and 5 are aerated, which permits pond BOD loadings in excess of 60 lbs/acre/day, while maintaining the remaining ponds below the BOD limit.

1.5 EFFLUENT REUSE

Reclaimed water for irrigation and disposal was delivered to the Los Angeles World Airports (LAWA) Irrigation Site during 2001. The irrigation/disposal areas are shown in Figure 2-1 (See Chapter 2).

The LAWA irrigation site is a 2,560 acre area located north and northeast of the Palmdale WRP. Only a portion of this area is currently dedicated to agricultural irrigation. Reclaimed water that is not used for irrigation is discharged to other portions of the LAWA site for disposal. The areas used for irrigation and the responsible operators are:

LAWA	-	30 acres operated by LAWA for growing pistachio trees 35 acres operated by LAWA for growing chestnut trees 30 acres operated by LAWA for a seasonal barley crop
Anthony P. Baal	-	40 acres leased from LAWA for growing Christmas trees, gourds, and landscape plants (lease was signed on February 1, 1989)
James Harris	-	20 acres leased from LAWA for growing chestnut trees (effective November 1994)

In 2001, approximately 58.85 MG of reclaimed water were used by the LAWA, 9.4 MG by Anthony P. Baal and 13.9 MG by James Harris. Also in 2001, an engineering report was submitted to the Department of Health Services (DHS) and the RWQCB for the proposed agricultural reuse operation using center pivot systems growing alfalfa and other suitable crops, as well as other reuse operations, which will help increase reuse and protect ground water quality. DHS approved this report on November 20, 2001.

NAME AND ADDRESS OF USERS

James Bort
Los Angeles World Airports
Palmdale Regional Airport
39516 No. 25th St., E
Palmdale, CA 93550-2158
(661) 266-7602

The Tree Mover
Anthony P./Thomas A. Baal
1809 E. Ave. 0-13
Palmdale, CA 93550

Antelope Valley Chestnut Plantation
Mr. James L. Harris
37340 No. 10th Street, E.
Palmdale, CA 93550

TABLE 1-1
PALMDALE WATER RECLAMATION PLANT
RECLAIMED WATER USAGE MONITORING REPORT- 2001
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57
WDID NO. 6B190107069

User	Reclaimed Water Delivered and Used (Million Gallons)		Use Area	Type of Use
	Daily Mean	Annual Total	(Acres)	
LAWA Eastgrove Pistachio	0.001	0.40	30	Agricultural Irrigation
LAWA Eastgrove Chestnuts	0.073	26.70	35	
LAWA Eastgrove Barley	0.087	31.75	30	
Anthony Baal	0.026	9.40	40	
James Harris	0.038	13.9	20	
TOTALS	0.225	82.15	155	

PALMDALE WATER RECLAMATION PLANT

CHAPTER 2

WASTEWATER FACILITIES AND STAFF

CHAPTER 2

WASTEWATER FACILITIES AND STAFF

2.1 SANITATION DISTRICTS OVERVIEW

The Districts operate eleven wastewater treatment plants, listed in Table 2-1, and approximately 1,200 miles of trunk sewers in Los Angeles County. In addition, approximately 9,400 miles of lateral sewers, operated by other agencies, connect to the trunk sewers.

As indicated in Table 2-1, seven treatment plants, including the Joint Water Pollution Control Plant (JWPCP), are grouped into an integrated sewerage system, known as the Joint Outfall System, which treats about 95% of the Districts' sewage. These seven plants are all on a single network of sewers. JWPCP is the downstream plant and the other six are upstream plants. Flows from the upstream plants can be bypassed to a limited extent to JWPCP. JWPCP currently provides 200 MGD of secondary treatment; the balance of its flow receives advanced primary treatment. Sludge from the upstream plants is returned to the sewer system and conveyed to JWPCP for further treatment (anaerobic digestion and dewatering) and disposal.

Two plants, the Saugus and Valencia WRPs, also comprise an integrated system with sludge processing and disposal taking place at the Valencia WRP. These plants are located in the City of Santa Clarita.

The Palmdale and Lancaster WRPs are stand-alone facilities, and both these plants have sludge processing facilities.

Seven of the plants provide tertiary treatment consisting of inert media filtration and disinfection following activated sludge secondary treatment. La Cañada uses extended aeration activated sludge to provide secondary treatment. Two plants, Lancaster and Palmdale, use oxidation ponds to provide secondary treatment. The Lancaster WRP, in addition, provides a unique form of tertiary treatment to a portion of its effluent; a unit of the Lancaster WRP known as the Antelope Valley Tertiary Treatment Plant partially removes phosphate from the secondary effluent and then provides filtration and disinfection. The phosphate removal inhibits algae growth in recreational lakes that receive the effluent. JWPCP provides pure oxygen activated sludge secondary treatment to 200 MGD of its flow and advanced primary treatment to the balance of the flow.

Most of the plants operate with more than one discharge permit. Of the eleven plants, eight have NPDES permits; three do not. The three that do not have NPDES permits are the Lancaster, Palmdale, and La Cañada WRPs; their permits cover both Waste Discharge Requirements (WDR) and reclaimed water requirements (WRR). Except for the JWPCP, all of the plants have reuse (non-NPDES) permits and provide reclaimed water for reuse. The Pomona, San Jose Creek and Whittier Narrows WRPs are also covered by a permit with requirements for groundwater replenishment.

TABLE 2-1
SANITATION DISTRICTS
WASTEWATER TREATMENT PLANTS

Plant	Design Capacity (MGD)	Treatment Level	Sludge Treatment Facilities	NPDES Permit	Reuse Permit	Groundwater Recharge Permit
Joint Outfall Sewerage System						
La Cañada WRP	0.2	Secondary[3]			X	
Long Beach WRP	25	Tertiary[1]		X	X	
Los Coyotes WRP	37.5	Tertiary[1]		X	X	
Pomona WRP	15	Tertiary[1]		X	X	X
San Jose Creek WRP	100	Tertiary[1]		X	X	X
Whittier Narrows WRP	15	Tertiary[1]		X	X	X
Joint Water Pollution Control Plant (JWPCP)	385	Partial Secondary[2]	X	X		
Subtotal	577.7					
Santa Clarita Valley Sewerage System						
Saugus WRP	6.5	Tertiary[1]		X	X	
Valencia WRP	12.6	Tertiary[1]	X	X	X	
Subtotal	19.1					
Stand-alone Plants						
Lancaster WRP	16	Secondary[4]	X		X	
(Antelope Valley Tertiary Treatment Plant)[5]	0.6[5]	Tertiary[5]				
Palmdale WRP	15.0	Secondary[4]	X		X	
Subtotal	31.0					
Entire Sanitation Districts						
Total	627.8					

1. Tertiary treatment consists of activated sludge secondary followed by inert media filtration and disinfection.
2. JWPCP has 385 MGD of advanced primary treatment capacity plus 200 MGD of pure oxygen activated sludge secondary capacity. Final effluent is a blend of primary and secondary effluents.
3. The La Cañada WRP has extended aeration activated sludge secondary treatment.
4. The Lancaster and Palmdale WRPs have oxidation ponds.
5. The Antelope Valley Tertiary Treatment Plant is part of the Lancaster WRP and treats a portion of the Lancaster WRP effluent (providing phosphate removal, filtration and chlorination).

2.2 PALMDALE WATER RECLAMATION PLANT

The Palmdale WRP is located at 39300 30th Street East, Palmdale, California, 93550.

As indicated in Table 2-1, the plant has one wastewater permit for irrigation with and disposal of reclaimed water. Figure 2-1 shows the details of the plant (including both 30th and 40th street sites), the City of Los Angeles World Airports' (LAWA) irrigation site, and the locations of the groundwater monitoring wells.

Process Description

Figure 2-2 is a process schematic of the plant that uses the following process sequence: comminution, primary sedimentation and oxidation ponds. Primary sludge and primary skimmings are anaerobically digested. The digested sludge is dried in drying beds and stockpiled on site.

Chronology

The chronology in Table 2-2 is provided as background in understanding how the plant evolved to its present state of development.

Facility Improvements in 2001

There were no new facilities or modifications to existing facilities in 2001, except for the fact that the Districts continued to implement improvements in effluent disposal practices at the LAWA disposal site.

Treatment Plant Operators

Operators at the Palmdale WRP and their certifications are listed in Table 2-3.

TABLE 2-2
CHRONOLOGY
PALMDALE WATER RECLAMATION PLANT

Item	Contract Number	Date
District 20 formed		08/07/51
Palmdale Treatment Plant completed (0.75 MGD)	767	09/04/53
District 20 enlarged (0.75 TO 2.5 MGD)		1956
Oxidation Ponds 5 and 6	1122	09/22/57
Digester Tank No. 2	1135	01/08/58
Dike Lining Pond 6	1239	10/03/58
Percolation Ponds 1 and 2	1237	11/03/58
District 20 Effluent Line	1238	11/14/58
Dike Lining Pond 5	1255	01/27/59
Effluent use for irrigation began		05/01/59
Oxidation ponds 1-4 and percolation ponds 1-4 combined	1398	08/03/61
District 20 Stage I Expansion (2.5 MGD to 3.1 MGD)	1996	09/14/72
Interim disposal ponds 6-9		10/80
Effluent Relief Line (24-inch)	2671	01/09/84
DOA Effluent Delivery Line (18-inch)		01/20/84
Stage II Expansion (3.1 MGD to 6.5 MGD)	2883	02/22/89
Oxidation Ponds 4 and 5	2975	05/05/89
Primary Effluent Relief Line	3055	07/19/90
Stage III Expansion (6.5 MGD to 8 MGD)	3098	07/14/93
Pond Effluent System	3168	10/30/92
Fire Protection & Water Supply Improvements	3213	11/04/92
Stage IV Groundwater Monitoring Facilities	3340	12/29/95
Stage IV Expansion (8.0 MGD to 15.0 MGD)	3341	02/26/97*

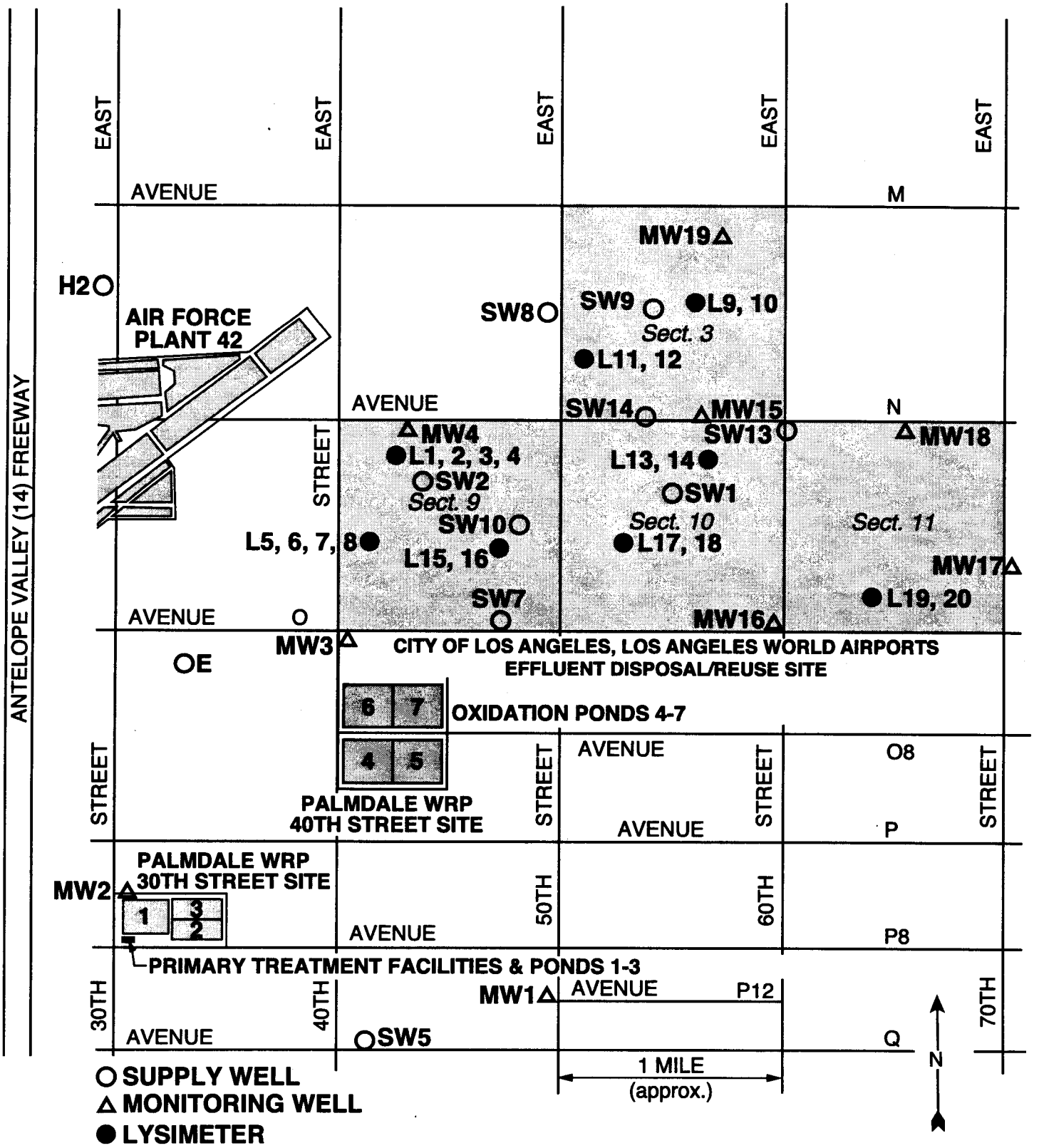
* The treatment facilities for Stage IV expansion were placed in operation in July 1996.

TABLE 2-3

TREATMENT PLANT OPERATORS
PALMDALE WATER RECLAMATION PLANT
ANNUAL REPORT - 2001

Operator	Shift	Certification
Tim Linn, Supervisor	Day	Grade III
Roberto Martinez	Day	Grade III
William Zeller	Day	Grade II
James Barrick	Day	Grade II

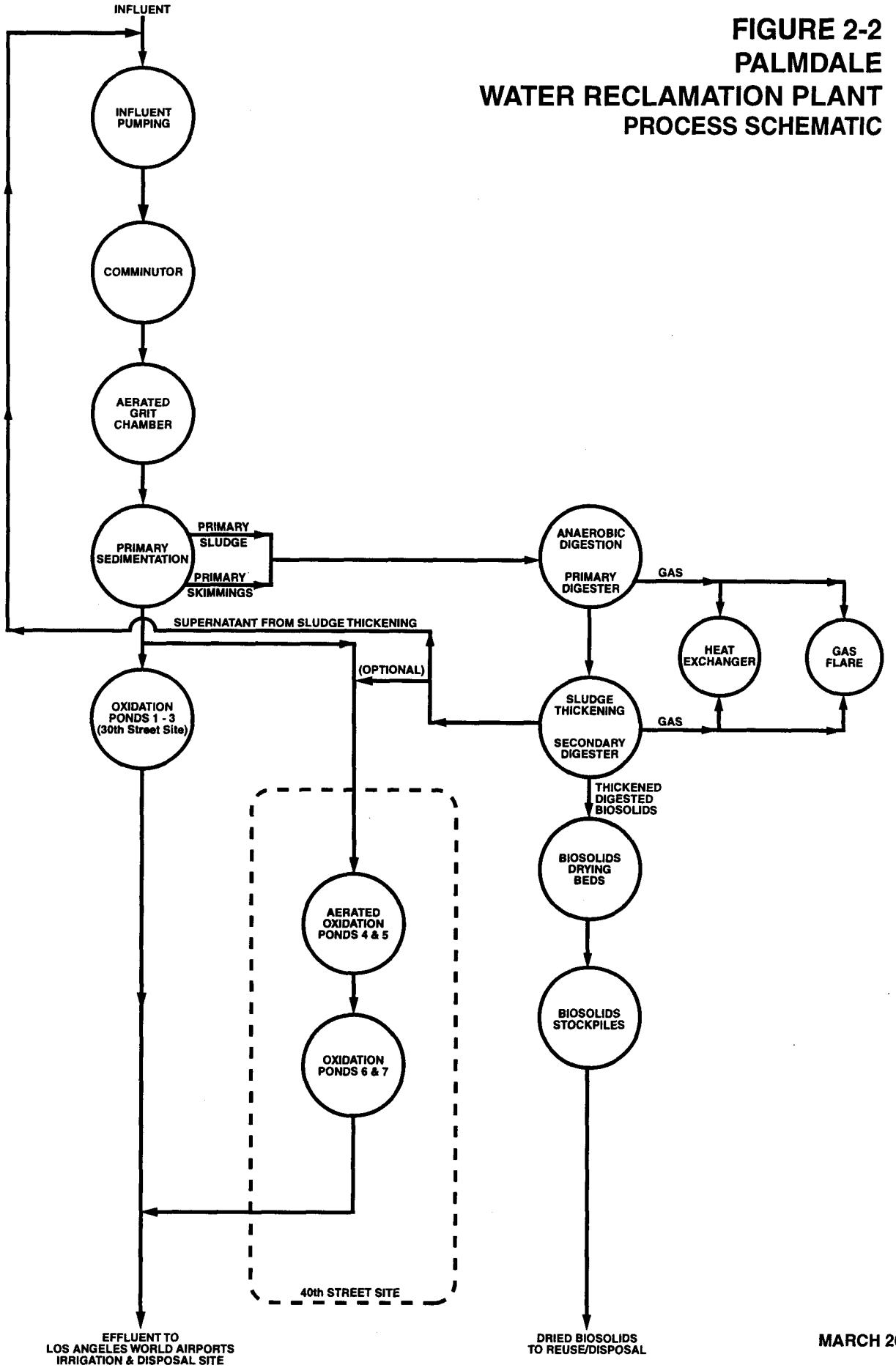
FIGURE 2-1
PALMDALE WATER RECLAMATION PLANT
DISPOSAL/REUSE SITES, WELLS AND LYSIMETERS



MARCH 2001

EXHIBIT 1-2 TO CITY OF LOS ANGELES' RESPONSE TO DISCOVERY ORDER

FIGURE 2-2
PALMDALE
WATER RECLAMATION PLANT
PROCESS SCHEMATIC



MARCH 2002

EXHIBIT 1-2 TO CITY OF LOS ANGELES' RESPONSE TO DISCOVERY ORDER

PALMDALE WATER RECLAMATION PLANT

CHAPTER 3

LABORATORIES

CHAPTER 3

LABORATORIES

3.1 INTRODUCTION

The Sanitation Districts operate ten laboratories located at nine of its eleven treatment plants. The laboratories are divided into two categories: treatment plant laboratories (TPLs) and water quality laboratories (WQLs).

The eight treatment plant laboratories are the Long Beach, Los Coyotes, Pomona, San Jose Creek, Whittier Narrows, Saugus, Valencia and Lancaster TPLs. These laboratories are concerned primarily with process control of the treatment plants. Additional duties of the TPLs include a portion of the monitoring (generally simpler tests which do not require specialized equipment or expertise) pursuant to waste discharge and water reclamation permits.

The two water quality laboratories are the San Jose Creek and Joint Water Pollution Control Plant (JWPCP) WQLs. They utilize specialized equipment and expertise to perform tests which the TPLs are unable to perform. Note that there are both a San Jose Creek WQL and a San Jose Creek TPL. The JWPCP WQL also functions as a TPL; it includes a group which conducts process control tests for the JWPCP.

There are no laboratories at the La Cañada and Palmdale plants; consequently, the San Jose Creek TPL also functions as the TPL for the La Cañada WRP and the Lancaster TPL also functions as the TPL for the Palmdale WRP.

3.2 QUALITY ASSURANCE ACTIVITIES

The Quality Assurance (QA) Group of the Sanitation Districts Laboratory Section is responsible for monitoring the validity and quality of analytical data produced in all ten laboratories. In order to accomplish this goal, a quality assurance plan prepared by the QA Group is strictly adhered to. The plan includes routine QA activities that are performed in the laboratories in order to assure the defensibility of data reported.

In 2001, routine QA activities that were performed, both intralaboratory and interlaboratory, included, but were not limited to, the following:

Intralaboratory Quality Control

1. A routine practice of running laboratory control samples, duplicates and matrix spikes or duplicate spikes for every tenth sample was maintained. Control limits have been established for both precision and accuracy for most analytes, and quality control data were plotted on the control charts. For situations where the data were outside of the control limits, corrective action was initiated and maintained at the bench level until the problems were solved.

2. A reagent or method blank was routinely run with each batch of samples as a contamination check.

3. Calibration standards were analyzed as required. For some tests, a calibration check standard was used to check the calibration curve. These solutions had a concentration mid-point of the calibration curve and were prepared from chemicals that were of a different lot than that used for the calibration curve.

4. For some organic constituents, surrogate standards were added to every sample, duplicate, spike, and blank. Results were compared to established acceptance limits. When unacceptable QA results were obtained, corrective action was performed.

5. Instrument QA was also done (e.g., for GC/MS, mass calibration and tuning were performed to meet ion abundance criteria, etc.).

6. In 2001 at San Jose Creek WQL and JWPCP WQL, chemical and bacteriological suitability testing was conducted monthly on laboratory purified water used for microbiological testing.

7. The annual Inhibitory Residue Test was performed in 2001.

8. Positive, negative, and sterility checks were performed on each batch of prepared media.

9. The Biology Section performed routine toxicity bioassay QA by running a known toxicant with every batch of samples. They also performed other QA activities as required for a biology laboratory.

Interlaboratory Quality Control

1. The nine laboratories supplying data for NPDES monitoring programs (i.e., all the laboratories except Lancaster) participated in the EPA's Discharge Monitoring Report (DMR) QA by analyzing chemistry samples purchased from Environmental Resource Associates (one of the EPA certified suppliers). Overall performance was satisfactory.

2. The San Jose Creek WQL Biology Group normally performs bioassay testing for standard toxicants issued by EPA. However, the toxicity test was not conducted by the EPA in 2001.

3. In 2001, all ten Districts' laboratories participated in the California Department of Health Services' (DHS) Environmental Laboratory Accreditation Program (ELAP) Performance Evaluation (PE) study. Overall performance was satisfactory.

4. The Districts' ten laboratories analyzed microbiology samples purchased from Environmental Resource Associates (one of the EPA certified suppliers) in 2001 as part of its ELAP certification for microbiology. Overall performance was satisfactory.

5. Quality control samples in the form of QC check standards, either prepared in-house or purchased from commercial sources, were issued by the QA Group to all Districts' laboratories. In situations where the results were not acceptable, the analysts and their supervisors were informed and error resolutions were performed. This consisted of checking calculations, data transcription, instrumentation, methodology, etc. Follow-up check samples were issued to verify that the analyses were back in control. QA check samples issued in 2001 (including those for error resolution) consisted of 815 samples and 1,177 tests. Only 2.1% of the samples required error resolution.

6. The QA group also issued split samples collected from one of the water reclamation plants to assess analysis in a real environmental matrix. Results of these analyses were also submitted to the QA Group for statistical evaluation.

7. An MF coliform standard and multiple analyst plate count was distributed to all the laboratories on a monthly basis.

8. All ten laboratories have been re-certified through October-December, 2003. Certification is pending successful completion of the renewal site visits by the California DHS as part of the laboratories' ELAP re-certification process. The site visits will be scheduled by the ELAP in early 2002.

PALMDALE WATER RECLAMATION PLANT

CHAPTER 4

WASTEWATER MONITORING DATA

CHAPTER 4

WASTEWATER MONITORING DATA

4.1 ORGANIZATION OF THE DATA

The monitoring programs at the Districts' wastewater treatment plants can be rather complex; consequently, the following explanation is provided to aid in interpreting the data.

Data are maintained in two databases:

1. An **operational database** for data which normally are monitored daily or weekly and are used for the day-to-day operation of the plant. Data are reported here only for effluent flow, total coliforms and pH.

2. A **laboratory database** for data which normally are monitored monthly or less often. These include primarily metals and organic compounds. Separate data summaries are presented for:

   - **Influent monitoring**
   - **Effluent monitoring**

   The results of all samples are presented together with descriptive statistics. This data summary may contain results which were not reported in monthly monitoring reports. These additional data can result from sampling conducted for purposes other than routine monitoring. The additional sampling may be done by other agencies (Air Quality Management District, Regional Water Quality Control Board or USEPA) or by the Districts for a special study or as a sampling follow-up to a questionable sample.

4.2 LABORATORY TEST CODES

The Districts use a unique 3-character code to identify each constituent in the laboratory database. Priority pollutants and other significant constituents are organized into the following groups:

Test Group	Test Code Series
Physical Properties and Solids	100
Nitrogens and Sulfurs	200
Miscellaneous	300
Carbons	400
Chlorinated Pesticides and PCBs	500
Volatile Organic Compounds	600
Metals	700
Base-Neutral/Acid Extractable Compounds	800
Dioxins	D00
Furans	F00

In the laboratory data summaries, the constituents are sorted in numerical order according to the test code. Both the constituent name and test code are given at the top of each column in the data summary. Table 4-1 is provided for assistance in finding specific constituents in the summaries. One can first look for the desired constituent in Table 4-1 (arranged alphabetically) to find the test code. Then, knowing the test code, one can find the desired constituent and its data in tables 4-3 and 4-4 (arranged in numeric order).

Statistical summaries follow the influent and effluent data and effluent limits follow the effluent statistical summaries.

4.3 DETECTION LIMITS

Sample results below the method detection limits are indicated by the use of the less than symbol (<). A few parameters are reported as sums. In those cases, we have chosen to report total detected concentrations. Results which were below the detection limit were not included in the sum. Consequently, if none of the isomers were detected, the total is reported as ND.

4.4 PERMIT LIMITS

The permit limits at this plant include the following:

- **Waste Discharge Requirements** for effluent disposal to sites other than those covered by NPDES requirements.
- Specific **Reuse Permit Limits** are given for nonpotable use in irrigation, etc.
- **Radioactivity requirements** are included by reference. Radioactivity requirements are specified in Title 22, Chapter 15 Article 3, Sections 64441-64443 of the California Code of Regulations.

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
% MOISTURE	158
% ORGANIC MATTER	406
1,1,1,2-TETRACHLOROETHANE	6D5
1,1,1-TRICHLOROETHANE	603
1,1,2,2-TETRACHLOROETHANE	653
1,1,2-TRICHLOROETHANE	618
1,1-DICHLOROETHANE	616
1,1-DICHLOROETHENE	605
1,1-DICHLOROPROPENE	6C7
1,2,3,4-TETRAMETHYLBENZENE	686
1,2,3-TRICHLOROBENZENE	889
1,2,3-TRICHLOROPROPANE	6D6
1,2,4,5-TETRACHLOROBENZENE	8E7
1,2,4-TRICHLOROBENZENE	846
1,2-DIBROMO-3-CHLOROPROPANE	6C3
1,2-DIBROMOETHANE	673
1,2-DICHLOROBENZENE	819
1,2-DICHLOROETHANE	619
1,2-DICHLOROETHANE-D4	S10
1,2-DICHLOROPROPANE	650
1,2-DIPHENYLHYDRAZINE	829
1,3,5-TRICHLOROBENZENE	899
1,3,5-TRIMETHYLBENZENE	661
1,3-BUTADIENE	675
1,3-DICHLOROBENZENE	820
1,3-DICHLOROPROPANE	6C5
1,4-DICHLOROBENZENE	821
1,4-DICHLOROBENZENE-D4	S20
1,4-DICHLOROBUTANE	S08
1,4-DIOXANE	696
1,4-NAPHTHOQUINONE	8C7
1234678HEPCHLRDIBENZDIOXIN	D27
1234678HEPTCHLORDIBENZFURAN	F23
1234789HEPTCHLORDIBENZFURAN	F24
123478HEXCHLORDIBENZDIOXIN	D24
123478HEXCHLORODIBENZOFURAN	F19
1234TETRCHLORDIBENZDIOXIN	D18
123678HEXCHLORDIBENZDIOXIN	D25
123678HEXCHLORODIBENZOFURAN	F20
123789HEXCHLORDIBENZDIOXIN	D26
123789HEXCHLORODIBENZOFURAN	F22
12378PENCHLORDIBENZDIOXIN	D22
12378PENTACHLORODIBENZFURA	F17
123TRICHLORODIBENZODIOXIN	D14
123TRICHLORODIBENZOFURAN	F15
12478PENCHLORDIBENZDIOXIN	D23
124TRICHLORODIBENZODIOXIN	D15
1278TETRCHLORDIBENZDIOXIN	D19
12DICHLORODIBENZOFURAN	F13

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
1378TETRCHLORDIBENZDIOXIN	D20
16DICHLORODIBENZODIOXIN	D11
178TRICHLORODIBENZODIOXIN	D16
1CHLORODIBENZODIOXIN	D09
1CHLORODIBENZOFURAN	F09
1-METHYLNAPHTHALENE	894
1-METHYLPHENANTHRENE	896
1-NAPHTHYLAMINE	8C8
1-PROPANOL	671
2,2-DICHLOROPROPANE	6C6
2,3,4,5-TETRACHLOROPHENOL	687
2,3,4,6-TETRACHLOROPHENOL	8E8
2,3,4-TRICHLOROPHENOL	693
2,3,5,6-TETRACHLOROPHENOL	688
2,3,5-TRICHLOROPHENOL	689
2,3,5-TRIMETHYLNAPHTHALENE	898
2,3,6-TRICHLOROPHENOL	690
2,3,7,8-TCDD	844
2,3-BENZOFLUORENE	884
2,3-DICHLOROANILINE	864
2,4,5,6-TETRACHLORO-M-XYLENE	S13
2,4,5-T	5C1
2,4,5-TP(SILVEX)	518
2,4,5-TRICHLOROPHENOL	691
2,4,6-TRIBROMOPHENOL	S06
2,4,6-TRICHLOROPHENOL	664
2,4,6-TRICHLOROPHENOL	856
2,4-D(ACID)	517
2,4-DB	5C2
2,4-DICHLOROPHENOL	658
2,4-DICHLOROPHENOL	847
2,4-DIMETHYLPHENOL	626
2,4-DIMETHYLPHENOL	848
2,4-DINITROPHENOL	849
2,4-DINITROTOLUENE	826
2,6-DICHLOROPHENOL	8A9
2,6-DIMETHYLNAPHTHALENE	892
2,6-DINITROTOLUENE	827
2.4-DP (DICHLORPROP)	5B7
234678HEXCHLORODIBENZOFURAN	F21
23478PENTACHLORODIBENZFURAN	F18
2378TETRACHLORODIBENZOFURAN	F16
2378TETRCHLORDIBENZDIOXIN	D21
237TRICHLORODIBENZODIOXIN	D17
23DICHLORODIBENZODIOXIN	D12
23DICHLORODIBENZOFURAN	F14
27DICHLORODIBENZODIOXIN	D13
2-ACETYLAMINOFLUORENE	8A2
2-BUTANONE	680

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
2CHLORODIBENZODIOXIN	D10
2CHLORODIBENZOFURAN	F10
2-CHLOROETHYLVINYLETHER	648
2-CHLORONAPHTHALENE	815
2-CHLOROPHENOL	657
2-CHLOROPHENOL	845
2-ETHYLTOLUENE	660
2-FLUOROBIPHENYL	S05
2-FLUOROPHENOL	S01
2-HEXANONE	699
2-METHYL FLUORANTHENE	887
2-METHYL-4,6DINITROPHENOL	850
2-METHYLNAPHTHALENE	8C6
2-METHYLNAPHTHALENE	895
2-NAPHTHYLAMINE	8C9
2-NITROPHENOL	851
2-PROPANOL	672
3,3'-DICHLOROBENZIDINE	822
3,3'-DIMETHYLBENZIDINE	8B3
3,4,5-TRICHLOROPHENOL	692
3,6-DIMETHYLPHENANTHRENE	893
3CHLORODIBENZOFURAN	F11
3-METHYLCHOLANTHRENE	8C4
4-AMINOBIPHENYL	8A3
4-BROMOFLUOROBENZENE	S12
4-BROMOPHENYL PHENYLETHER	813
4-CHLORO-3-METHYLPHENOL	656
4-CHLORO-3-METHYLPHENOL	853
4CHLORODIBENZOFURAN	F12
4-CHLOROPHENYLPHENYLETHER	816
4-METHYL-2-PENTANONE	681
4-NITROPHENOL	852
5-NITRO-O-TOLUIDINE	8D9
7,12DIMETHYLBENZ(A)ANTHRACENE	888
7,12-DIMETHYLBENZ(A)ANTHRACENE	8B2
9,10-DIPHENYLANTHRACENE	883
90 FATHEAD ACUTE	B18
90 MENIDIA ACUTE	B19
ACENAPHTHENE	800
ACENAPHTHENE-D10	S22
ACENAPHTHYLENE	801
ACETIC ACID	639
ACETONE	676
ACETONITRILE	665
ACETOPHENONE	8A1
ACID CONC.	344
ACIDITY	318
ACROLEIN	654
ACRYLONITRILE	655

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
ACTINOLITE FIBERS	CA1
ADA (ANTHRAQUINONE DSA)	329
AEROBIC PLATE COUNT	354
AIR (O2 + AR + N2)	331
ALDRIN	512
ALGAE COUNT	360
ALLYL CHLORIDE	6B8
ALPHA-BHC	508
ALUMINUM	707
AMMONIA NITROGEN	1S6
AMMONIA NITROGEN	201
AMOSITE FIBERS	CA2
ANAEROBIC PLATE COUNT	355
ANTHOPHYLLITE FIBERS	CA3
ANTHRACENE	802
ANTIMONY	725
ARGON (AR)	333
AROCLOR 1016	535
AROCLOR 1221	536
AROCLOR 1232	537
AROCLOR 1242	519
AROCLOR 1248	538
AROCLOR 1254	520
AROCLOR 1260	539
ARSENIC	705
ATRAZINE	550
AVAILABLE CALCIUM OXIDE	321
AVAILABLE PHOSPHORUS	339
BACTERIOPHAGE	382
BARIUM	706
BENZENE	620
BENZIDINE	803
BENZO(A)ANTHRACENE	804
BENZO(A)PYRENE	805
BENZO(B)FLUORANTHENE	806
BENZO(E)PYRENE	890
BENZO(G.H.I.)PERYLENE	807
BENZO(K)FLUORANTHENE	808
BENZYL ALCOHOL	8A4
BENZYL CHLORIDE	678
BERYLLIUM	726
BETA-BHC	523
BICARBONATE ALKALINITY	306
BIOLOGICAL EXAMINATION	X06
BIPHENYL	891
BIS(2-CHLOROETHYL)ETHER	810
BIS(2-CL-ETHOXY)METHANE	809
BIS(2-CL-ISOPROPYL)ETHER	811
BISMUTH	727

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
BORON	314
BROMIDE	319
BROMOCHLOROMETHANE	6B9
BROMODICHLOROMETHANE	608
BROMOETHANE	694
BROMOFORM	610
BROMOMETHANE	646
BULK DENSITY	161
BUTANE	635
BUTYLBENZYL PHTHALATE	814
BUTYRIC ACID	642
C. PERFRINGENS	B51
CADMIUM	708
CALCIUM	703
CALCIUM-HARDNESS	701
CAM TEST	C01
CAMPYLOBACTER	386
CARBAZOLE	859
CARBON DIOXIDE (CO2)	336
CARBON DISULFIDE	285
CARBON DISULFIDE	698
CARBON MONOXIDE (CO)	337
CARBON TETRACHLORIDE	604
CARBONACEOUS BOD5 (CBOD5	412
CARBONATE ALKALINITY	307
CARBONYL SULFIDE	284
CATION EXCH. CAPACITY	108
CCL4 ACTIVITY (CARBON)	121
CERIO. CHRONIC-SURVIVAL	B06
CERIO.CHRONIC-REPRODUCTION	B07
CERIUM	728
CESIUM	729
CHLORIDE	301
CHLORIDE MASS EMISS. RATE	973
CHLORINATED PESTICIDES	5B0
CHLORINE DEMAND	303
CHLORINE REQUIR.	304
CHLORINE RESIDUAL	302
CHLOROBENZENE	611
CHLOROBENZENE-D5	I04
CHLOROBENZILATE	8A6
CHLOROETHANE	647
CHLOROFORM	602
CHLOROMETHANE	649
CHLOROPICRIN	6B3
CHLOROPRENE	6C2
CHLORPYRIFOS	5D8
CHRYSENE	817
CHRYSENE-D12	S24

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
CHRYSOTILE FIBERS	CA4
CIS-1,2-DICHLOROETHYLENE	677
CIS-1,3-DICHLOROPROPENE	651
CIS-CHLORDANE	526
CIS-CHLORDENE	541
CIS-NONACHLOR	543
CLOSTRIDIUM PERFRINGENS	375
CN AMENABLE TO CHLORINE	210
COBALT	711
COLOR, APPARENT	104
CONDUCTIVITY	1S4
CONDUCTIVITY	102
COPPER	712
CROCIDOLITE FIBERS	CA5
CRYPTOSPORIDIUM	B53
DALAPON	5B5
DECACH3CYCLOPENTASILOXANE	6E0
DECACHLOROBIPHENYL	S14
DECAFLUOROBIPHENYL	S04
DELTA-BHC	524
DEMETON	5D3
DEPTH TO BOTTOM	901
DEPTH TO WATER	1S8
DEPTH TO WATER	900
DIALLATE	8A7
DIBENZO(A,H)ANTHRACENE	818
DIBENZOFURAN	8A8
DIBROMOCHLOROMETHANE	609
DIBROMOFLUOROMETHANE	S09
DICAMBA	5B6
DICHLORODIBENZODIOXINS	D02
DICHLORODIBENZOFURANS	F02
DICHLORVOS	5B1
DICYCLOPENTADIENE	6B5
DIELDRIN	513
DIETHYL PHTHALATE	823
DIETHYL SULFIDE	290
DIETHYLAMINE	6E3
DIETHYLHEXYL PHTHALATE	812
DIMETHOATE	5C7
DIMETHYL PHTHALATE	824
DIMETHYL SULFIDE	286
DIMETHYLDISULFIDE	291
DI-N-BUTYL PHTHALATE	825
DI-N-OCTYL PHTHALATE	828
DINOSEB	5C3
DIPHENYLAMINE	8B5
DISSOLVED CARBON DIOXIDE	409
DISSOLVED ORGANIC CARBON	455

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
DISSOLVED OXYGEN	1S3
DISSOLVED OXYGEN	115
DISULFOTON	5C8
DIVERSITY INDEX	361
E. COLI	B50
ECE (SOIL SALINITY)	E01
EDTA	327
EDTA-IRON(I)	347
ENDOSULFAN I	531
ENDOSULFAN II	532
ENDOSULFAN SULFATE	533
ENDRIN	514
ENDRIN ALDEHYDE	534
ENTEROCOCCUS	357
ENTEROPATHOGENIC E. COLI	383
EPA EXTRACTION PROCEDURE	172
ETHANE	633
ETHANOL	623
ETHYL ACETATE	6E4
ETHYL BENZENE	624
ETHYL MERCAPTAN	260
ETHYL MERCAPTAN	283
ETHYL METHACRYLATE	6D8
ETHYL METHANESULFONATE	8B6
ETHYL PARATHION	5D1
FAMPHUR	8B7
FATHEAD 96H-ACUTE-100%EFF	B02
FATHEAD 96H-ACUTE-CONC	B03
FATHEAD 96H-ACUTE-TITLE22	B01
FATHEAD CHRONIC-GROWTH	B05
FATHEAD CHRONIC-SURVIVAL	B04
FECAL COLIFORM	351
FECAL COLIFORM (MF)	356
FECAL STREPTOCOCCUS	353
FERRIC IRON	746
FERROUS IRON	745
FIELD CONDUCTIVITY	906
FIELD DISSOLVED CO2	908
FIELD DISSOLVED O2	907
FIELD HYDROGEN SULFIDE	910
FIELD PH	905
FIELD TOTAL ALKALINITY	909
FIELD WATER TEMPERATURE	904
FLASH POINT	105
FLOATABLE SOLIDS	157
FLOC/FILAMENT SURVEY	X10
FLOW	Z01
FLUORANTHENE	830
FLUORENE	831

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
FLUORIDE	313
FLUORIDE MASS EMISS. RATE	974
FLUOROBENZENE	I03
FLUOROMETER READING	362
FORMALDEHYDE	697
FREE ALKALI	345
FREE CYANIDE	207
FREON 11 (CCL3F)	669
FREON 12 (CCL2F2)	668
FREON 21 (CHCL2F)	670
FREON TF	617
GAMMA RADIATION	372
GC/MS SCAN	X03
GIARDIA	B52
GOLD	730
GROSS ALPHA RADIOACTIVITY	370
GROSS BETA RADIOACTIVITY	371
GUTHION	5D4
HEAT OF COMBUSTION	112
HEATING VALUE OF GAS	338
HEPTACHLOR	510
HEPTACHLOR EPOXIDE	511
HEPTACHLORODIBENZODIOXINS	D07
HEPTACHLORODIBENZOFURANS	F07
HEXACHLOROBENZENE	832
HEXACHLOROBUTADIENE	833
HEXACHLOROCYCLOPENTADIENE	834
HEXACHLORODIBENZODIOXINS	D06
HEXACHLORODIBENZOFURANS	F06
HEXACHLOROETHANE	835
HEXACHLOROPROPENE	8B8
HEXANE	637
HEXAVALENT CHROMIUM	710
HOLD FOR TEST ASSIGNMENT	170
HPLC SCAN	X09
HYDROCARBONS-METHOD 418.1	C18
HYDROCARBONS-MODIFIED8015	C15
HYDROGEN (H2)	340
HYDROGEN CYANIDE	209
HYDROGEN SULFIDE	261
HYDROGEN SULFIDE	281
HYDROSCAN	173
HYDROXIDE ALKALINITY	308
HYMENOLEPIS	392
INDENO(1,2,3-C,D)PYRENE	836
INFRARED SCAN	X02
ION CHROMATOGRAPHY SCAN	X08
IRON	713
ISOBUTYL ALCOHOL	6C9

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
ISOBUTYL MERCAPTAN	289
ISOBUTYRALDEHYDE	6E7
ISOBUTYRIC ACID	641
ISODRIN	8B9
ISOPHORONE	837
ISOPROPYL ACETATE	6E8
ISOPROPYL ETHER	6E9
ISOPROPYL MERCAPTAN	287
ISOPROPYLBENZENE	684
ISOSAFROLE	8C1
ISOVALERIC ACID	643
KEPONE	5C5
KEPONE	8C2
LANTHANUM	731
LAS	343
LEAD	714
LIMONENE	659
LINDANE (GAMMA-BHC)	509
LITHIUM	715
LOWER EXPLOSIVE LIMIT	1B0
M+P CRESOL	862
M+P-CRESOL	628
M+P-XYLENE	695
MACROCYSTIS-GERMINATION	B09
MACROCYSTIS-GERMTUBLENGTH	B10
MAGNESIUM	704
MAGNESIUM-HARDNESS	702
MALATHION	5D5
MANGANESE	716
MBAS	315
MCPA	5B9
MCPP	5B8
M-DICHLOROBENZENE	614
M-DINITROBENZENE	8B4
MENIDIA ACUTE,%SURVIVAL	B17
MENIDIA-GROWTH	B15
MENIDIA-SURVIVAL	B14
MERCAPTANS	258
MERCURY	717
METALS SCAN	X05
METHACRYLONITRILE	6D1
METHANE	632
METHANE (CH4)	335
METHANOL	622
METHAPYRILENE	8C3
METHOXYCLOR	516
METHYL CELLOSOLVE	6F1
METHYL FORMATE	6F2
METHYL IODIDE	6D2

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
METHYL MERCAPTAN	259
METHYL MERCAPTAN	282
METHYL METHACRYLATE	6D7
METHYL METHANESULFONATE	8C5
METHYL PARATHION	5C9
METHYL PYRENE	886
METHYLCYCLOHEXANE	I02
METHYLENE BROMIDE	6D3
METHYLENE CHLORIDE	601
METHYL-TERT-BUTYL-ETHER	662
MEVINPHOS	5B2
MICROSCOPIC EXAM	X04
MICROTOX-15	B32
MICROTOX-5	B31
MIREX	552
M-NITROANILINE	8D2
MOLYBDENUM	732
MONOCHLORODIBENZODIOXINS	D01
MONOCHLORODIBENZOFURANS	F01
M-XYLENE	666
MYSID-FECUNDITY	B12
MYSID-GROWTH	B13
MYSID-SURVIVAL	B11
NALED (DIBROM)	5B3
N-AMYL ACETATE	6E1
NAPHTHALENE	838
NAPHTHALENE-D8	S21
N-BUTYL ACETATE	6E2
N-BUTYL MERCAPTAN	295
N-DECANE	865
N-HEPTANE	6E5
N-HEXANE	6E6
NICKEL	718
NID	316
NITRATE NITROGEN	1S7
NITRATE NITROGEN	204
NITRITE NITROGEN	205
NITROBENZENE	839
NITROBENZENE-D5	S03
NITROGEN (N2)	334
NITROMETHANE	6B0
N-NITROSODIETHYLAMINE	8D5
N-NITROSODIMETHYLAMINE	840
N-NITROSODI-N-BUTYLAMINE	8D4
N-NITROSODI-N-PROPYLAMINE	841
N-NITROSODIPHENYLAMINE	857
N-NITROSOMETHYLETHYLAMINE	8D6
N-NITROSOPIPERIDINE	8D7
N-NITROSOPYRROLIDINE	8D8

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
NO TEST REQUESTED	999
NOCARDIA	358
N-OCTADECANE	866
NONMETHANE ORGANICS (TCA)	415
NONMETHANE ORGANICS TO-12	416
NON-POLAR OIL AND GREASE	414
NONVOLATILE DISSOL SOLIDS	166
NOX (AS NO2)	211
N-PROPYL MERCAPTAN	293
N-PROPYLBENZENE	685
O,O,O-TRIETHYLPHOSPHOROTHIOATE	8F1
O+P DICHLOROBENZENE	674
O+P-XYLENE	667
OBJECTIONABLE INSOLUBLES	322
O-CRESOL	627
O-CRESOL	861
OCTACH3CYCLOTETRASILOXANE	6D9
OCTACHLORODIBENZODIOXIN	D08
OCTACHLORODIBENZOFURAN	F08
O-DICHLOROBENZENE	613
ODOR	109
ODOR CHARACTERIZATION	X07
OIL & GREASE	408
OIL & GREASE MASS EM.RATE	975
O-NITROANILINE	8D1
OP'-DDD	503
OP'-DDE	501
OP'-DDT	505
ORGANIC LEAD	7A1
ORGANIC NITROGEN	202
ORTHO PHOSPHATE	311
O-TOLUIDINE	8E9
OXYCHLORDANE	529
OXYGEN (O2)	332
O-XYLENE	629
P(DIMETHYLAMINO)AZOBENZENE	8B1
PAINT FILTER TEST	127
PALLADIUM	M02
PCB CONGENER 101	567
PCB CONGENER 105	568
PCB CONGENER 110	569
PCB CONGENER 114	570
PCB CONGENER 118	571
PCB CONGENER 119	572
PCB CONGENER 123	573
PCB CONGENER 126	574
PCB CONGENER 128	575
PCB CONGENER 138	576
PCB CONGENER 149	577

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
PCB CONGENER 151	578
PCB CONGENER 153	579
PCB CONGENER 156	580
PCB CONGENER 157	581
PCB CONGENER 158	582
PCB CONGENER 167	583
PCB CONGENER 168	584
PCB CONGENER 169	585
PCB CONGENER 170	586
PCB CONGENER 177	587
PCB CONGENER 18	554
PCB CONGENER 180	588
PCB CONGENER 183	589
PCB CONGENER 187	590
PCB CONGENER 189	591
PCB CONGENER 194	592
PCB CONGENER 200	593
PCB CONGENER 201	594
PCB CONGENER 206	595
PCB CONGENER 28	555
PCB CONGENER 37	556
PCB CONGENER 44	557
PCB CONGENER 49	558
PCB CONGENER 52	559
PCB CONGENER 66	560
PCB CONGENER 70	561
PCB CONGENER 74	562
PCB CONGENER 77	563
PCB CONGENER 81	564
PCB CONGENER 87	565
PCB CONGENER 99	566
P-CHLOROANILINE	8A5
PCNB(PENTACHLORONITROBENZENE)	5D7
P-CRESOL	863
P-DICHLOROBENZENE	615
PEAK FLOW	Z02
PENTACHLOROBENZENE	8E1
PENTACHLORODIBENZODIOXINS	D05
PENTACHLORODIBENZOFURANS	F05
PENTACHLORONITROBENZENE	8E2
PENTACHLOROPHENOL	663
PENTACHLOROPHENOL	854
PENTANE	636
PERCENT METHANE IN GAS	902
PERCENT OXYGEN IN GAS	903
PERCHLORATE	3B2
PERMANENT GASES, TOTAL	330
PERYLENE	897
PERYLENE-D12	S25

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
PH	1S1
PH	101
PHENACETIN	8E3
PHENANTHRENE	842
PHENANTHRENE-D10	S23
PHENOL	855
PHENOL(BY GC)	631
PHENOL-D5	S02
PHENOLS	312
PHENYLACETIC ACID	860
PHORATE	5D2
PHOSGENE	6B2
PHTHALATE ESTERS	6B4
PHYS/CHEM PROPERTIES	X01
PICLORAM	5C4
PLATINUM	M01
PLUTONIUM	128
P-NITROANILINE	8D3
POLYCHLORINATED PHENOLS	6B1
POTASSIUM	325
POTASSIUM	719
POTASSIUM-40	131
PP'-DDD	504
PP'-DDE	502
PP'-DDT	506
P-PHENYLENEDIAMINE	8E4
PRODUCTION DATA	PRD
PRONAMIDE	8E5
PROPANE	634
PROPIONIC ACID	640
PROPIONITRILE	6D4
P-TERPHENYL-D14	S07
P-XYLENE	630
PYRENE	843
PYRIDINE	858
RADIUM 226+228	126
RADON	123
RAINFALL	998
REDOX	1S5
RELATIVE % HUMIDITY	159
SAFROLE	8E6
SALINITY	317
SALMONELLA	385
SAMPLE VOLUME	165
SAR	107
SEC-BUTYL MERCAPTAN	288
SELENASTRUM CHRONIC-GROW'	B08
SELENIUM	720
SEMI-VOLATILE TTO	T10

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
SER	106
SETTLEABLE SOLIDS	156
SIEVE ANALYSIS <#100SIEVE	379
SIEVE ANALYSIS >#10 SIEVE	176
SIEVE ANALYSIS >#100SIEVE	378
SIEVE ANALYSIS >#30 SIEVE	177
SIEVE ANALYSIS >#45 SIEVE	178
SIEVE ANALYSIS >#60 SIEVE	179
SIEVE ANALYSIS >3/4"SIEVE	376
SIEVE ANALYSIS >3/8"SIEVE	377
SILICON	721
SILVER	722
SIMAZINE	551
SLAKING RATE-40 DEG C INC	323
SLUDGE VOLUME (CYLINDER)	162
SLUDGE VOLUME INDEX	164
SLUDGE VOLUME-SETTLEOMETER	163
SODIUM	723
SODIUM POTASSIUM TARTRATE	346
SOLUBLE ALUMINUM	775
SOLUBLE ANTIMONY	757
SOLUBLE ARSENIC	755
SOLUBLE BARIUM	756
SOLUBLE BERYLLIUM	771
SOLUBLE BOD	402
SOLUBLE CADMIUM	758
SOLUBLE CALCIUM	753
SOLUBLE CALCIUM-HARDNESS	751
SOLUBLE CARBOHYDRATES	413
SOLUBLE CHLORIDE	341
SOLUBLE CHROMIUM	759
SOLUBLE COBALT	761
SOLUBLE COD	404
SOLUBLE COPPER	762
SOLUBLE IRON	763
SOLUBLE LEAD	764
SOLUBLE MAGNESIUM	754
SOLUBLE MAGNESIUM-HARDNESS	752
SOLUBLE MANGANESE	766
SOLUBLE MERCURY	767
SOLUBLE MOLYBDENUM	782
SOLUBLE NICKEL	768
SOLUBLE ORTHO-PHOSPHATE	342
SOLUBLE PHOSPHATE	320
SOLUBLE POTASSIUM	769
SOLUBLE SELENIUM	770
SOLUBLE SILICON	776
SOLUBLE SILVER	772
SOLUBLE SODIUM	773

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
SOLUBLE SULFATE	263
SOLUBLE SULFIDE	252
SOLUBLE THALLIUM	784
SOLUBLE TIN	785
SOLUBLE VANADIUM	787
SOLUBLE ZINC	774
SORBITOL	328
SOUBLE CARBONACEOUS BOD	462
SPECIFIC GRAVITY	113
SPINDLE NO. (VISCOSITY)	118
STANDARD PLATE COUNT	352
STICKLEBACK ACUTE,%SURVIVAL	B16
STRONTIUM	733
STRONTIUM-90	124
STYRENE	682
SULFATE	257
SULFATE MASS EMISS. RATE	972
SULFATE REDUCING BACTERIA	374
SULFITE	254
SULFUR DIOXIDE	292
SUSPENDED SOLIDS	151
SUSPENDED SOLIDS @ PH 7	150
SYM-TRINITROBENZENE	8F2
T. INTERMEDIUS/NOVELLUS	397
T. NEAPOLITANUS	398
T. THIOOXIDANS	399
T-1,4-DICHLORO-2-BUTENE	6C4
TANNIN & LIGNIN	407
TASTE	110
TCLP EXTRACTION	174
TECHNICAL CHLORDANE	540
TEMPERATURE	1S2
TEMPERATURE	111
TEMPERATURE (VISCOSITY)	120
TERT-BUTYL MERCAPTAN	294
TETRACHLORODIBENZODIOXINS	D04
TETRACHLORODIBENZOFURANS	F04
TETRACHLOROETHYLENE	607
TETRAHYDROFURAN	679
THALLIUM	734
THERMOPHILIC FUNGI	381
THIOCYANATE	256
THIONAZIN	5C6
THIOSULFATE	253
THORIUM	129
TICH	522
TIN	735
TITANIUM	736
TOLUENE	621

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
TOLUENE-D8	S11
TOTAL ALKALINITY	305
TOTAL ASBESTOS	CA0
TOTAL ASCARIS	389
TOTAL BOD	401
TOTAL CARBAMATE PESTICIDES	5B4
TOTAL CHROMIUM	709
TOTAL COD	403
TOTAL COLIFORM	350
TOTAL COLIFORM (MF)	349
TOTAL CYANIDE	206
TOTAL DETECTABLE DDT	507
TOTAL DETECTABLE PCBS	521
TOTAL DETECTED CHLORDANES	530
TOTAL DETECTED PESTICIDES	549
TOTAL DISSOLVED SOLIDS	155
TOTAL ENTERIC BACTERIA	384
TOTAL ENTERIC VIRUSES	395
TOTAL FUNGI	380
TOTAL HARDNESS	309
TOTAL HCH	525
TOTAL HYDROCARBONS	417
TOTAL KJELDAHL NITROGEN	203
TOTAL LIPIDS	411
TOTAL METALS	M03
TOTAL NITROG.MASS EM.RATE	971
TOTAL NITROGEN	208
TOTAL NITROGEN	326
TOTAL NO3 + NO2 NITROGEN	951
TOTAL ORGANIC CARBON	405
TOTAL ORGANIC HALOGEN(TOX)	410
TOTAL PARASITES	388
TOTAL PARTICULATES	160
TOTAL PHOSPHATE	310
TOTAL PHOSPHOROUS	324
TOTAL SOLIDS	153
TOTAL SULFIDE	251
TOTAL SULFUR	255
TOTAL SURFACTANTS	3B1
TOTAL THIOBACILLUS SP	396
TOTAL TOXIC ORGANICS	T01
TOTAL XYLENE ISOMERS	6B7
TOXAPHENE	515
TOXIC ORGANIC MGT PLAN	TMP
TOXOCARA	393
TRANS-1,2-DICHLOROETHYLENE	645
TRANS-1,3-DICHLOROPROPENE	652
TRANS-CHLORDANE	527
TRANS-CHLORDENE	542

TABLE 4-1
LABORATORY DATABASE
CONSTITUENTS IN ALPHABETICAL ORDER

TEST DESCRIPTION	TEST CODE
TRANS-NONACHLOR	528
TRANSPARENCY (SECCHI DISK)	116
TREMOLITE FIBERS	CA6
TRIBUTYL TIN	553
TRICHLORODIBENZODIOXINS	D03
TRICHLORODIBENZOFURANS	F03
TRICHLOROETHYLENE	606
TRICHURIS	391
TRIETHYLAMINE	6F3
TRIPHENYLENE	885
TRITIUM	122
TTO FOR ALUMINUM FORMING	T11
TTO FOR COIL COATING	T02
TTO FOR COPPER FORMING	T03
TTO FOR E&EC SUBCAT A&B	T04
TTO FOR E&EC SUBCAT C	T05
TTO FOR ELECTROPL&METAL FINISHING	T06
TTO FOR INDUSTRIAL LAUNDRY	T12
TTO FOR METAL MOLD & CAST	T07
TTO FOR TRUCK WASHES	T08
TURBIDITY	103
URANIUM	125
UV ABSORBING ORGANICS	149
VALERIC ACID	644
VANADIUM	737
VANADIUM-48	130
VAPAM (METAM-SODIUM)	5D6
VIABLE ASCARIS	390
VINYL ACETATE	625
VINYL CHLORIDE	612
VISCOMETER SPINDLE RPM	119
VISCOSITY	114
VISCOSITY(BROOKFIELD LVT)	117
VOLATILE ACIDS	638
VOLATILE DISSOLVED SOLIDS	168
VOLATILE SUSPENDED SOLIDS	152
VOLATILE TOTAL SOLIDS	154
VOLATILE TTO	T09
W.E.T. DI WATER	175
WASTE EXTRACTION TEST	171
YERSINIA	387
ZINC	724

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

PLANT FLOWS (MGD)			
MONTH	TOTAL PLANT INFLUENT [1]	MAXIMUM INFLUENT [1]	TOTAL EFFLUENT TO LAWA SITE
JAN	9.03	12.3	9.43
FEB	8.96	12.3	9.44
MAR	8.77	12.1	8.26
APR	8.86	12.3	7.89
MAY	8.92	12.6	7.47
JUN	9.10	12.4	7.63
JUL	9.36	12.8	8.21
AUG	9.37	13.1	8.15
SEP	9.50	13.2	8.65
OCT	9.39	13.7	8.47
NOV	9.39	12.9	8.63
DEC	9.36	13.3	9.07
MEAN	9.17	12.7	8.44
MAX	9.50	13.7	9.44
MIN	8.77	12.1	7.47
LIMITS: MEAN MAX MIN	15.0	37.5	

NOTE: 1. Represents influent to secondary treatment.

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

OXIDATION POND FREEBOARD						
MONTH	POND 2	POND 3	POND 4	POND 5	POND 6	POND 7
	INCHES	INCHES	INCHES	INCHES	INCHES	INCHES
JAN	37	37	39	39	29	29
FEB	37	37	39	39	29	29
MAR	37	37	39	39	29	29
APR	37	37	39	39	29	29
MAY	37	37	39	39	30	30
JUN	37	37	39	39	30	30
JUL	37	37	39	39	30	30
AUG	37	37	39	39	30	30
SEP	37	37	39	39	30	30
OCT	37	37	39	39	30	30
NOV	37	37	39	39	29	29
DEC	37	37	39	39	29	29
MEAN	37	37	39	39	29	29
MAX	37	37	39	39	30	30
MIN	37	37	39	39	29	29
LIMITS: MEAN MAX MIN	24	24	24	24	24	24

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

MONTH	PLANT FLOW	COD	BIOCHEMICAL OXYGEN DEMAND		
	INFLUENT	INFLUENT	INFLUENT	PRIMARY EFFLUENT	
	30-DAY AVERAGE	WEEKLY VALUE	WEEKLY VALUE	WEEKLY VALUE	30-DAY AVERAGE
	MGD	mg/L	mg/L	mg/L	mg/L
JAN	9.16	493	229	189	181
FEB	8.98	571	256	190	192
MAR	8.90	567	241	192	192
APR	8.78	557	256	214	201
MAY	8.83	580	256	192	207
JUN	9.05	585	258	176	179
JUL	9.26	498	238	173	180
AUG	9.34	522	227	172	166
SEP	9.48	473	235	166	169
OCT	9.45	536	247	165	168
NOV	9.36	523	224	171	163
DEC	9.36	555	235	169	168
MEAN	9.16	538	242	181	181
MAX	9.48	585	258	214	207
MIN	8.78	473	224	165	163
LIMITS: MEAN MAX MIN					

TABLE 4-2

OPERATIONAL DATA - REUSE

PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA

MONTHLY AVERAGES

WQCB ORDER NO. 6-00-57

MONITORING AND REPORTING PROGRAM NO. 00-57

SECONDARY EFFLUENT TO LOS ANGELES WORLD AIRPORTS SITE (COMPOSITE SAMPLING)			
MONTH	INHIBITED SOLUBLE BOD	SOLUBLE BOD	SOLUBLE COD
	mg/L	mg/L	mg/L
JAN	5	18	88
FEB	6	14	95
MAR	4	11	92
APR	4	42	83
MAY	6	37	84
JUN	4	19	85
JUL	5	15	86
AUG			
SEP			
OCT			
NOV			
DEC			
MEAN	5	22	87
MAX	6	42	95
MIN	4	11	83
LIMITS:			
MEAN		30	
MAX		45	
MIN			

Sampling from January through July was composited to represent gravity and pressure lines.

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

SECONDARY EFFLUENT POND 2&3 TO LOS ANGELES WORLD AIRPORTS SITE (LAWA)			
MONTH	INHIBITED SOLUBLE BOD	SOLUBLE BOD	SOLUBLE COD
	mg/L	mg/L	mg/L
JAN			
FEB			
MAR			
APR			
MAY			
JUN			
JUL			
AUG	4	10	101
SEP	4	12	109
OCT	6	15	91
NOV	6	14	84
DEC	> 7	18	94
MEAN	> 5	14	96
MAX	> 7	18	109
MIN	4	10	84
LIMITS:			
MEAN		30	
MAX		45	
MIN			

August through December sampling for gravity line only.

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

SECONDARY EFFLUENT POND 4-7 TO LOS ANGELES WORLD AIRPORTS SITE (LAWA)			
MONTH	INHIBITED SOLUBLE BOD	SOLUBLE BOD	SOLUBLE COD
	mg/L	mg/L	mg/L
JAN			
FEB			
MAR			
APR			
MAY			
JUN			
JUL			
AUG	3	14	68
SEP	4	30	64
OCT	4	24	60
NOV	< 3	46	48
DEC	4	23	55
MEAN	< 4	28	59
MAX	4	46	68
MIN	< 3	14	48
LIMITS:			
MEAN		30	
MAX		45	
MIN			

August through December sampling for pressure line only.

TABLE 4-2
OPERATIONAL DATA - REUSE
PALMDALE WATER RECLAMATION PLANT

2001 MONITORING DATA
MONTHLY AVERAGES
WQCB ORDER NO. 6-00-57
MONITORING AND REPORTING PROGRAM NO. 00-57

SYMBOL	EXPLANATION
•	NO DISCHARGE UNDER THIS BOARD ORDER ON THIS DATE. THE SUMMARY REFLECTS ALL DATA SHOWN.
A	PARTIAL OR NO SAMPLE OBTAINED DUE TO SAMPLER MALFUNCTION.
B	ERROR IN TESTING PROCEDURE. INVALID RESULTS OBTAINED.
C	INSUFFICIENT SAMPLE VOLUME FOR PERFORMING ALL TESTS.
D	HOLIDAY WORK SCHEDULE. INSUFFICIENT MANPOWER TO PERFORM ALL TESTS.
E	INSUFFICIENT MANPOWER TO PERFORM ALL TESTS.
F	NECESSARY TESTING EQUIPMENT OUT OF SERVICE.
G	FLOW METER OUT OF SERVICE.
J	AVERAGE VALUE.
K	VALUE CALCULATED FROM AVERAGE VALUE.

TABLE 4-3
PALMDALE WATER RECLAMATION PLANT
2001 INFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
155	TOTAL DISSOLVED SOLIDS	MG/L			499					500			471		490	500	471
201	AMMONIA NITROGEN	MG/L	26.0	23.2	26.6	24.6	25.4	38.0	25.2	25.4	22.7	25.7	23.7	25.7	26.0	38	22.7
203	TOTAL KJELDAHL NITROGEN	MG/L	36.6	36.6	40.9	39.8	45.4	47.2	42.6	33.5	31.0	36.6	35.8	38.9	38.7	47.2	31.0
204	NITRATE NITROGEN	MG/L	0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.02	< 0.01	< 0.01	0.01 - < 0.02	0.1	< 0.01
206	TOTAL CYANIDE	MG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
312	PHENOLS	MG/L						0.053							0.053	0.053	0.053
315	MBAS	MG/L	11.2	10.2	10.7	12.6	12	4.65	13.1	10.9	10.7	10.5	10.5	10.4	10.6	13.1	4.65
401	TOTAL BOD (Average)	MG/L	229	258	241	271	256	258	238	227	235	247	224	235	243	271	224
403	TOTAL COD (Average)	MG/L	493	571	567	557	580	585	498	522	473	536	523	555	538	585	473
502	PP'-DDE	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
504	PP'-DDD	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
506	PP'-DDT	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
508	ALPHA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
509	LINDANE (GAMMA-BHC)	UG/L						0.01							0.01	0.01	0.01
510	HEPTACHLOR	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
511	HEPTACHLOR EPOXIDE	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
512	ALDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
513	DIELDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
514	ENDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
515	TOXAPHENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
519	AROCLOR 1242	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
520	AROCLOR 1254	UG/L						< 0.05							0 - < 0.05	< 0.05	< 0.05
523	BETA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
524	DELTA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
531	ENDOSULFAN I	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
532	ENDOSULFAN II	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
533	ENDOSULFAN SULFATE	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
534	ENDRIN ALDEHYDE	UG/L						< 0.04							0 - < 0.04	< 0.04	< 0.04
535	AROCLOR 1016	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
536	AROCLOR 1221	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
537	AROCLOR 1232	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
538	AROCLOR 1248	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
539	AROCLOR 1260	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
540	TECHNICAL CHLORDANE	UG/L						< 0.05							0 - < 0.05	< 0.05	< 0.05
601	METHYLENE CHLORIDE	UG/L						< 1							0 - < 1	< 1	< 1
602	CHLOROFORM	UG/L						7						2	5	7	2
603	1,1,1-TRICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
604	CARBON TETRACHLORIDE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
605	1,1-DICHLOROETHENE	UG/L						< 1							0 - < 1	< 1	< 1
606	TRICHLOROETHYLENE	UG/L						< 1							0 - < 1	< 1	< 1
607	TETRACHLOROETHYLENE	UG/L						2							2	2	2
608	BROMODICHLOROMETHANE	UG/L						2						< 0.5	1 - < 1.3	2	< 0.5
609	DIBROMOCHLOROMETHANE	UG/L						2						< 0.5	1 - < 1.3	2	< 0.5
610	BROMOFORM	UG/L						< 1						< 0.5	0 - < 0.8	< 1	< 0.5
611	CHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
612	VINYL CHLORIDE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
613	O-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
614	M-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
615	P-DICHLOROBENZENE	UG/L						7							7	7	7
616	1,1-DICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
618	1,1,2-TRICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
619	1,2-DICHLOROETHANE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
620	BENZENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
621	TOLUENE	UG/L						1							1	1	1
624	ETHYL BENZENE	UG/L						< 1							0 - < 1	< 1	< 1
645	TRANS-1,2-DICHLOROETHYLENE	UG/L						< 1							0 - < 1	< 1	< 1

TABLE 4-3
PALMDALE WATER RECLAMATION PLANT
2001 INFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
646	BROMOMETHANE	UG/L						< 1							0 - < 1	< 1	< 1
647	CHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
648	2-CHLOROETHYLVINYLETHER	UG/L						< 1							0 - < 1	< 1	< 1
649	CHLOROMETHANE	UG/L						< 1							0 - < 1	< 1	< 1
650	1,2-DICHLOROPROPANE	UG/L						< 1							0 - < 1	< 1	< 1
651	CIS-1,3-DICHLOROPROPENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
652	TRANS-1,3-DICHLOROPROPENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
653	1,1,2,2-TETRACHLOROETHANE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
654	ACROLEIN	UG/L						< 10							0 - < 10	< 10	< 10
655	ACRYLONITRILE	UG/L						< 10							0 - < 10	< 10	< 10
662	METHYL-TERT-BUTYL-ETHER	UG/L						< 2.5							0 - < 2.5	< 2.5	< 2.5
705	ARSENIC	MG/L						< 0.001							0 - < 0.001	< 0.001	< 0.001
706	BARIUM	MG/L						0.07							0.07	0.07	0.07
708	CADMIUM	MG/L						< 0.002							0 - < 0.002	< 0.002	< 0.002
709	TOTAL CHROMIUM	MG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
712	COPPER	MG/L						0.07							0.07	0.07	0.07
714	LEAD	MG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
716	MANGANESE	MG/L						0.02							0.02	0.02	0.02
717	MERCURY	MG/L						0.0003							0.0003	0.0003	0.0003
718	NICKEL	MG/L						< 0.02							0 - < 0.02	< 0.02	< 0.02
720	SELENIUM	MG/L						0.0011							0.0011	0.0011	0.0011
722	SILVER	MG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
724	ZINC	MG/L						0.51							0.51	0.51	0.51
725	ANTIMONY	MG/L						0.0008							0.0008	0.0008	0.0008
726	BERYLLIUM	MG/L						< 0.0025							0 - < 0.0025	< 0.0025	< 0.0025
734	THALLIUM	MG/L						< 0.001							0 - < 0.001	< 0.001	< 0.001
800	ACENAPHTHENE	UG/L						< 10							0 - < 10	< 10	< 10
801	ACENAPHTHYLENE	UG/L						< 10							0 - < 10	< 10	< 10
802	ANTHRACENE	UG/L						< 10							0 - < 10	< 10	< 10
803	BENZIDINE	UG/L						< 50							0 - < 50	< 50	< 50
804	BENZO(A)ANTHRACENE	UG/L						< 10							0 - < 10	< 10	< 10
805	BENZO(A)PYRENE	UG/L						< 2							0 - < 2	< 2	< 2
806	BENZO(B)FLUORANTHENE	UG/L						< 10							0 - < 10	< 10	< 10
807	BENZO(GHI)PERYLENE	UG/L						< 10							0 - < 10	< 10	< 10
808	BENZO(K)FLUORANTHENE	UG/L						< 10							0 - < 10	< 10	< 10
809	BIS(2-CL-ETHOXY)METHANE	UG/L						< 10							0 - < 10	< 10	< 10
810	BIS(2-CHLOROETHYL)ETHER	UG/L						< 10							0 - < 10	< 10	< 10
811	BIS(2-CL-ISOPROPYL)ETHER	UG/L						< 10							0 - < 10	< 10	< 10
812	DIETHYLHEXYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
813	4-BROMOPHENYL PHENYLETHER	UG/L						< 10							0 - < 10	< 10	< 10
814	BUTYLBENZYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
815	2-CHLORONAPHTHALENE	UG/L						< 10							0 - < 10	< 10	< 10
816	4-CHLOROPHENYLPHENYLETHER	UG/L						< 10							0 - < 10	< 10	< 10
817	CHRYSENE	UG/L						< 10							0 - < 10	< 10	< 10
818	DIBENZO(A,H)ANTHRACENE	UG/L						< 10							0 - < 10	< 10	< 10
819	1,2-DICHLOROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
820	1,3-DICHLOROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
821	1,4-DICHLOROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
822	3,3'-DICHLOROBENZIDINE	UG/L						< 50							0 - < 50	< 50	< 50
823	DIETHYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
824	DIMETHYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
825	DI-N-BUTYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
826	2,4-DINITROTOLUENE	UG/L						< 10							0 - < 10	< 10	< 10
827	2,6-DINITROTOLUENE	UG/L						< 10							0 - < 10	< 10	< 10
828	DI-N-OCTYL PHTHALATE	UG/L						< 10							0 - < 10	< 10	< 10
829	1,2-DIPHENYLHYDRAZINE	UG/L						< 10							0 - < 10	< 10	< 10

TABLE 4-3
PALMDALE WATER RECLAMATION PLANT
2001 INFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
830	FLUORANTHENE	UG/L						< 10							0 - < 10	< 10	< 10
831	FLUORENE	UG/L						< 10							0 - < 10	< 10	< 10
832	HEXACHLOROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
833	HEXACHLOROBUTADIENE	UG/L						< 10							0 - < 10	< 10	< 10
834	HEXACHLOROCYCLOPENTADIEN	UG/L						< 50							0 - < 50	< 50	< 50
835	HEXACHLOROETHANE	UG/L						< 10							0 - < 10	< 10	< 10
836	INDENO(1,2,3-C,D)PYRENE	UG/L						< 10							0 - < 10	< 10	< 10
837	ISOPHORONE	UG/L						< 10							0 - < 10	< 10	< 10
838	NAPHTHALENE	UG/L						< 10							0 - < 10	< 10	< 10
839	NITROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
840	N-NITROSODIMETHYLAMINE	UG/L						< 10							0 - < 10	< 10	< 10
841	N-NITROSODI-N-PROPYLAMINE	UG/L						< 10							0 - < 10	< 10	< 10
842	PHENANTHRENE	UG/L						< 10							0 - < 10	< 10	< 10
843	PYRENE	UG/L						< 10							0 - < 10	< 10	< 10
844	2,3,7,8-TCDD	UG/L						< 200							0 - < 200	< 200	< 200
845	2-CHLOROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
846	1,2,4-TRICHLOROBENZENE	UG/L						< 10							0 - < 10	< 10	< 10
847	2,4-DICHLOROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
848	2,4-DIMETHYLPHENOL	UG/L						< 20							0 - < 20	< 20	< 20
849	2,4-DINITROPHENOL	UG/L						< 50							0 - < 50	< 50	< 50
850	2-METHYL-4,6DINITROPHENOL	UG/L						< 50							0 - < 50	< 50	< 50
851	2-NITROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
852	4-NITROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
853	4-CHLORO-3-METHYLPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
854	PENTACHLOROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
855	PHENOL	UG/L						< 10							0 - < 10	< 10	< 10
856	2,4,6-TRICHLOROPHENOL	UG/L						< 10							0 - < 10	< 10	< 10
857	N-NITROSODIPHENYLAMINE	UG/L						< 10							0 - < 10	< 10	< 10
C15	HYDROCARBONS-MODIFIED8015	MG/L		26.4			13.0	8.2		16.6				11.8	15.2	26.4	8.2

TABLE 4-4
PALMDALE WATER RECLAMATION PLANT
2001 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
101	pH (Average)	PH	8.3	8.2	8.3	8.4	7.8	7.9	8.5						8.2	8.5	7.8
111	TEMPERATURE (Average)	DEG.C.	8.1	7.8	10.5	14.5	19.5	21	21.6						14.7	21.6	7.8
115	DISSOLVED OXYGEN (Average)	MG/L	7	6.3	8.9	6.5	4.3	5.4	3.4						6	8.9	3.4
151	SUSPENDED SOLIDS (Average)	MG/L	80	100	95	119	96	106	144						106	144	80
155	TOTAL DISSOLVED SOLIDS	MG/L	474	486	511	568	550	583	542						531	583	474
201	AMMONIA NITROGEN	MG/L	20.5	20.3	16.5	13.3	2.8	21.4	2.4						13.9	21.4	2.4
203	TOTAL KJELDAHL NITROGEN	MG/L	35.8	36.3	32	29.5	18.8	26.7	21.3						28.6	36.3	18.8
204	NITRATE NITROGEN	MG/L	1.10	0.15	0.062	0.34	2.83	0.11	1.16						0.822	2.83	0.062
206	TOTAL CYANIDE	MG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
257	SULFATE	MG/L	125	121	98	B	95	81	85						101	125	81
301	CHLORIDE	MG/L	98	100	110	129	129	131	137						119	137	98
310	TOTAL PHOSPHATE	MG/L			7.3			14.7							11	14.7	7.3
312	PHENOLS	MG/L						< 0.007							0 - < 0.007	< 0.007	< 0.007
313	FLUORIDE	MG/L						0.29							0.29	0.29	0.29
314	BORON	MG/L						0.44							0.44	0.44	0.44
315	MBAS	MG/L	0.21	0.39	0.48	0.3	0.25	0.22	0.30						0.31	0.48	0.21
404	SOLUBLE COD (Average)	MG/L	88	95	92	83	84	87	86						88	95	83
405	TOTAL ORGANIC CARBON	MG/L		49.2			45.6								47.4	49.2	45.6
408	OIL & GREASE (Average)	MG/L	< 5	< 4	< 4	< 4	< 5	< 5	< 5						0 - < 5	< 5	< 4
412	CARBONACEOUS CBOD5 (Average	MG/L	5	6	4	4	6	4	5						5	6	4
502	PP'-DDE	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
504	PP'-DDD	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
506	PP'-DDT	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
508	ALPHA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
509	LINDANE (GAMMA-BHC)	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
510	HEPTACHLOR	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
511	HEPTACHLOR EPOXIDE	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
512	ALDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
513	DIELDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
514	ENDRIN	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
515	TOXAPHENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
519	AROCLOR 1242	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
520	AROCLOR 1254	UG/L						< 0.05							0 - < 0.05	< 0.05	< 0.05
523	BETA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
524	DELTA-BHC	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
531	ENDOSULFAN I	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
532	ENDOSULFAN II	UG/L						< 0.01							0 - < 0.01	< 0.01	< 0.01
533	ENDOSULFAN SULFATE	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
534	ENDRIN ALDEHYDE	UG/L						< 0.04							0 - < 0.04	< 0.04	< 0.04
535	AROCLOR 1016	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
536	AROCLOR 1221	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
537	AROCLOR 1232	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
538	AROCLOR 1248	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
539	AROCLOR 1260	UG/L						< 0.1							0 - < 0.1	< 0.1	< 0.1
540	TECHNICAL CHLORDANE	UG/L						< 0.05							0 - < 0.05	< 0.05	< 0.05
601	METHYLENE CHLORIDE	UG/L						< 1							0 - < 1	< 1	< 1
602	CHLOROFORM	UG/L		< 1			< 1	< 1							0 - < 1	< 1	< 1
603	1,1,1-TRICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
604	CARBON TETRACHLORIDE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
605	1,1-DICHLOROETHENE	UG/L						< 1							0 - < 1	< 1	< 1
606	TRICHLOROETHYLENE	UG/L						< 1							0 - < 1	< 1	< 1
607	TETRACHLOROETHYLENE	UG/L						< 1							0 - < 1	< 1	< 1
608	BROMODICHLOROMETHANE	UG/L		< 1			< 1	< 1							0 - < 1	< 1	< 1
609	DIBROMOCHLOROMETHANE	UG/L		< 1			< 1	< 1							0 - < 1	< 1	< 1
610	BROMOFORM	UG/L		< 2			< 2	< 1							0 - < 2	< 2	< 1
611	CHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
612	VINYL CHLORIDE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
613	O-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
614	M-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
615	P-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
616	1,1-DICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
618	1,1,2-TRICHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1

TABLE 4-4
PALMDALE WATER RECLAMATION PLANT
2001 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
619	1,2-DICHLOROETHANE	UG/L						< 0.3							0 - < 0.3	< 0.3	< 0.3
620	BENZENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
621	TOLUENE	UG/L						< 1							0 - < 1	< 1	< 1
624	ETHYL BENZENE	UG/L						< 1							0 - < 1	< 1	< 1
645	TRANS-1,2-DICHLOROETHYLENE	UG/L						< 1							0 - < 1	< 1	< 1
646	BROMOMETHANE	UG/L						< 1							0 - < 1	< 1	< 1
647	CHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
648	2-CHLOROETHYLVINYLETHER	UG/L						< 1							0 - < 1	< 1	< 1
649	CHLOROMETHANE	UG/L						< 1							0 - < 1	< 1	< 1
650	1,2-DICHLOROPROPANE	UG/L						< 1							0 - < 1	< 1	< 1
651	CIS-1,3-DICHLOROPROPENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
652	TRANS-1,3-DICHLOROPROPENE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
653	1,1,2,2-TETRACHLOROETHANE	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
654	ACROLEIN	UG/L						< 10							0 - < 10	< 10	< 10
655	ACRYLONITRILE	UG/L						< 10							0 - < 10	< 10	< 10
662	METHYL-TERT-BUTYL-ETHER	UG/L						< 2.5							0 - < 2.5	< 2.5	< 2.5
703	CALCIUM	MG/L			32.0			38.8							35.4	38.8	32.0
704	MAGNESIUM	MG/L			12.5			13.2							12.9	13.2	12.5
705	ARSENIC	MG/L			< 0.001			< 0.001							0 - < 0.001	< 0.001	< 0.001
706	BARIUM	MG/L			0.01			0.02							0.02	0.02	0.01
708	CADMIUM	MG/L			< 0.002			< 0.002							0 - < 0.002	< 0.002	< 0.002
709	TOTAL CHROMIUM	MG/L			< 0.01			< 0.01							0 - < 0.01	< 0.01	< 0.01
712	COPPER	MG/L		0.02	0.02		< 0.01	0.01							0.01 - < 0.02	0.02	< 0.01
714	LEAD	MG/L			< 0.01			< 0.01							0 - < 0.01	< 0.01	< 0.01
717	MERCURY	MG/L			< 0.0001			< 0.0001							0 - < 0.0001	< 0.0001	< 0.0001
718	NICKEL	MG/L			< 0.02			< 0.02							0 - < 0.02	< 0.02	< 0.02
720	SELENIUM	MG/L		< 0.001	< 0.001		< 0.001	< 0.001							0 - < 0.001	< 0.001	< 0.001
722	SILVER	MG/L			< 0.01			0.01							0.01 - < 0.01	< 0.01	< 0.01
723	SODIUM	MG/L	108	103	110	120	116	123	128						115	128	103
724	ZINC	MG/L		0.15	0.11		0.08	0.08							0.11	0.15	0.08
725	ANTIMONY	MG/L			0.0007			0.0006							0.0007	0.0007	0.0006
726	BERYLLIUM	MG/L			< 0.0025			< 0.0025							0 - < 0.0025	< 0.0025	< 0.0025
734	THALLIUM	MG/L			< 0.001			< 0.001							0 - < 0.001	< 0.001	< 0.001
800	ACENAPHTHENE	UG/L						< 1							0 - < 1	< 1	< 1
801	ACENAPHTHYLENE	UG/L						< 1							0 - < 1	< 1	< 1
802	ANTHRACENE	UG/L						< 1							0 - < 1	< 1	< 1
803	BENZIDINE	UG/L						< 5							0 - < 5	< 5	< 5
804	BENZO(A)ANTHRACENE	UG/L						< 1							0 - < 1	< 1	< 1
805	BENZO(A)PYRENE	UG/L						< 0.2							0 - < 0.2	< 0.2	< 0.2
806	BENZO(B)FLUORANTHENE	UG/L						< 1							0 - < 1	< 1	< 1
807	BENZO(GHI)PERYLENE	UG/L						< 1							0 - < 1	< 1	< 1
808	BENZO(K)FLUORANTHENE	UG/L						< 1							0 - < 1	< 1	< 1
809	BIS(2-CL-ETHOXY)METHANE	UG/L						< 1							0 - < 1	< 1	< 1
810	BIS(2-CHLOROETHYL)ETHER	UG/L						< 1							0 - < 1	< 1	< 1
811	BIS(2-CL-ISOPROPYL)ETHER	UG/L						< 1							0 - < 1	< 1	< 1
812	DIETHYLHEXYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1
813	4-BROMOPHENYL PHENYLETHER	UG/L						< 1							0 - < 1	< 1	< 1
814	BUTYLBENZYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1
815	2-CHLORONAPHTHALENE	UG/L						< 1							0 - < 1	< 1	< 1
816	4-CHLOROPHENYLPHENYLETHER	UG/L						< 1							0 - < 1	< 1	< 1
817	CHRYSENE	UG/L						< 1							0 - < 1	< 1	< 1
818	DIBENZO(A,H)ANTHRACENE	UG/L						< 1							0 - < 1	< 1	< 1
819	1,2-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
820	1,3-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
821	1,4-DICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
822	3,3'-DICHLOROBENZIDINE	UG/L						< 5							0 - < 5	< 5	< 5
823	DIETHYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1
824	DIMETHYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1
825	DI-N-BUTYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1
826	2,4-DINITROTOLUENE	UG/L						< 1							0 - < 1	< 1	< 1
827	2,6-DINITROTOLUENE	UG/L						< 1							0 - < 1	< 1	< 1
828	DI-N-OCTYL PHTHALATE	UG/L						< 1							0 - < 1	< 1	< 1

TABLE 4-4
PALMDALE WATER RECLAMATION PLANT
2001 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
829	1,2-DIPHENYLHYDRAZINE	UG/L						< 1							0 - < 1	< 1	< 1
830	FLUORANTHENE	UG/L						< 1							0 - < 1	< 1	< 1
831	FLUORENE	UG/L						< 1							0 - < 1	< 1	< 1
832	HEXACHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
833	HEXACHLOROBUTADIENE	UG/L						< 1							0 - < 1	< 1	< 1
834	HEXACHLOROCYCLOPENTADIENE	UG/L						< 5							0 - < 5	< 5	< 5
835	HEXACHLOROETHANE	UG/L						< 1							0 - < 1	< 1	< 1
836	INDENO(1,2,3-C,D)PYRENE	UG/L						< 1							0 - < 1	< 1	< 1
837	ISOPHORONE	UG/L						< 1							0 - < 1	< 1	< 1
838	NAPHTHALENE	UG/L						< 1							0 - < 1	< 1	< 1
839	NITROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
840	N-NITROSODIMETHYLAMINE	UG/L						< 1							0 - < 1	< 1	< 1
841	N-NITROSODI-N-PROPYLAMINE	UG/L						< 1							0 - < 1	< 1	< 1
842	PHENANTHRENE	UG/L						< 1							0 - < 1	< 1	< 1
843	PYRENE	UG/L						< 1							0 - < 1	< 1	< 1
844	2,3,7,8-TCDD	UG/L						< 0.5							0 - < 0.5	< 0.5	< 0.5
845	2-CHLOROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
846	1,2,4-TRICHLOROBENZENE	UG/L						< 1							0 - < 1	< 1	< 1
847	2,4-DICHLOROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
848	2,4-DIMETHYLPHENOL	UG/L						< 2							0 - < 2	< 2	< 2
849	2,4-DINITROPHENOL	UG/L						< 5							0 - < 5	< 5	< 5
850	2-METHYL-4,6DINITROPHENOL	UG/L						< 5							0 - < 5	< 5	< 5
851	2-NITROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
852	4-NITROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
853	4-CHLORO-3-METHYLPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
854	PENTACHLOROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
855	PHENOL	UG/L						< 1							0 - < 1	< 1	< 1
856	2,4,6-TRICHLOROPHENOL	UG/L						< 1							0 - < 1	< 1	< 1
857	N-NITROSODIPHENYLAMINE	UG/L						< 1							0 - < 1	< 1	< 1
C15	HYDROCARBONS-MODIFIED8015	MG/L		1.52			1.7	0.19							1.1	1.7	0.19

B: Error in testing procedure. Invalid results obtained.

TABLE 4-4
PALMDALE WATER RECLAMATION PLANT
2001 POND 4-7 EFFLUENT MONITORING LABORATORY DATA

TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE	ANNUAL MAXIMUM	ANNUAL MINIMUM
101	pH (Average)	PH								7.8	8.6	8.5	8.5	8.3	8.3	8.6	7.8
111	TEMPERATURE (Average)	DEG.C.								22.6	22.7	18.1	12	8.5	16.8	22.7	8.5
115	DISSOLVED OXYGEN (Average)	MG/L								3.9	3.6	4.3	6.4	6.5	4.9	6.5	3.6
151	SUSPENDED SOLIDS (Average)	MG/L								113	77	80	79	82	86	113	77
155	TOTAL DISSOLVED SOLIDS	MG/L								496	487	513	495	454	489	513	454
201	AMMONIA NITROGEN	MG/L								2.3	10.4	11.4	10.5	15.3	10	15.3	2.3
203	TOTAL KJELDAHL NITROGEN	MG/L								11.1	19.0	20.1	19.9	24.5	18.9	24.5	11.1
204	NITRATE NITROGEN	MG/L								0.39	0.25	0.28	1.32	2.12	0.87	2.12	0.25
257	SULFATE	MG/L								66	72	62	55	54	62	72	54
301	CHLORIDE	MG/L								118	114	123	114	92	112	123	92
315	MBAS	MG/L								0.3	0.2	0.4	0.4	0.4	0.34	0.4	0.2
404	SOLUBLE COD (Average)	MG/L								68	64	60	48	55	59	68	48
405	TOTAL ORGANIC CARBON	MG/L								38.7				34.7	36.7	38.7	34.7
408	OIL & GREASE	MG/L								< 4	< 5	4.8	5.2	6.6	3.3 - < 5.1	6.6	< 4
602	CHLOROFORM	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
608	BROMODICHLOROMETHANE	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
609	DIBROMOCHLOROMETHANE	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
610	BROMOFORM	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
712	COPPER	MG/L								< 0.008				0.01	0.005 - < 0.009	0.01	< 0.008
720	SELENIUM	MG/L								< 0.001				< 0.001	0 - < 0.001	< 0.001	< 0.001
723	SODIUM	MG/L								115	118	108	95.1	93.0	105.8	118	93
724	ZINC	MG/L								0.04				0.08	0.06	0.08	0.04
C15	HYDROCARBONS-MODIFIED8015	MG/L								0.41				1.77	1.09	1.77	0.41

TABLE 4-4
PALMDALE WATER RECLAMATION PLANT
2001 POND 2&3 EFFLUENT MONITORING LABORATORY DATA

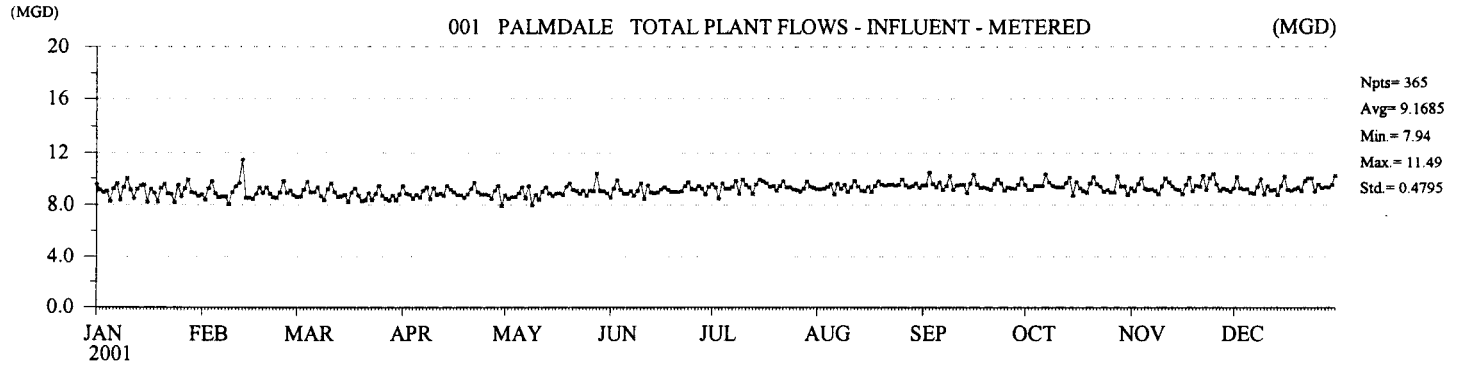
TEST CODE	CONSTITUENT	UNIT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL		
															AVERAGE	MAXIMUM	MINIMUM
101	pH (Average)	PH								9.4	8.9	8.8	8.8	8.7	8.9	9.4	8.7
111	TEMPERATURE (Average)	DEG.C.								21.9	21.7	17.6	11.8	8.4	16.3	21.9	8.4
115	DISSOLVED OXYGEN (Average)	MG/L								5	5.5	4.1	3.2	8	5.2	8	3.2
151	SUSPENDED SOLIDS (Average)	MG/L								174	230	162	141	96	161	230	96
155	TOTAL DISSOLVED SOLIDS	MG/L								619	665	622	577	511	599	665	511
201	AMMONIA NITROGEN	MG/L								0.5	3.55	1	4.5	9.1	3.73	9.1	0.5
203	TOTAL KJELDAHL NITROGEN	MG/L								13.9	32.9	17	24.1	27.6	23.1	32.9	13.9
204	NITRATE NITROGEN	MG/L								0.01	0.06	0.15	0.51	0.23	0.19	0.51	0.01
257	SULFATE	MG/L								105	81	54	60	54	71	105	54
301	CHLORIDE	MG/L								160	155	152	133	114	143	160	114
315	MBAS	MG/L								0.9	0.28	0.4	0.5	0.5	0.52	0.9	0.28
404	SOLUBLE COD (Average)	MG/L								101	109	91	84	94	96	109	84
405	TOTAL ORGANIC CARBON	MG/L								58.4				39.4	48.9	58.4	39.4
408	OIL & GREASE	MG/L								< 4	< 4	6.0	7.5	< 5.5	2.7 - < 5.4	7.5	< 4
602	CHLOROFORM	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
608	BROMODICHLOROMETHANE	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
609	DIBROMOCHLOROMETHANE	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
610	BROMOFORM	UG/L								< 0.5				< 0.5	0 - < 0.5	< 0.5	< 0.5
712	COPPER	MG/L								0.024				0.013	0.019	0.024	0.013
720	SELENIUM	MG/L								< 0.001				< 0.001	0 - < 0.001	< 0.001	< 0.001
723	SODIUM	MG/L								159	154	140	113	102.1	133.6	159	102.1
724	ZINC	MG/L								0.15				0.09	0.12	0.15	0.09
C15	HYDROCARBONS-MODIFIED8015	MG/L								0.91				3.64	2.28	3.64	0.91

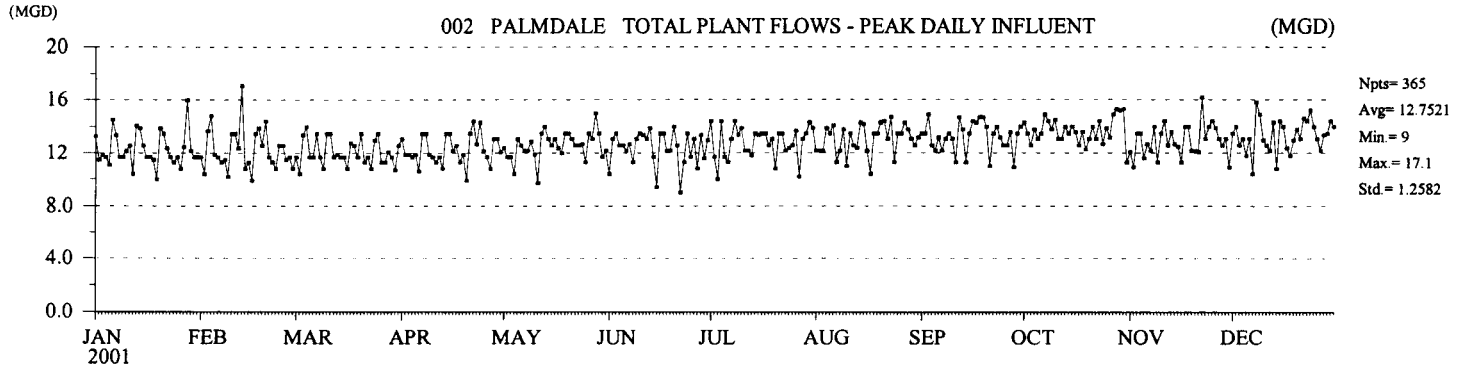
PALMDALE WATER RECLAMATION PLANT

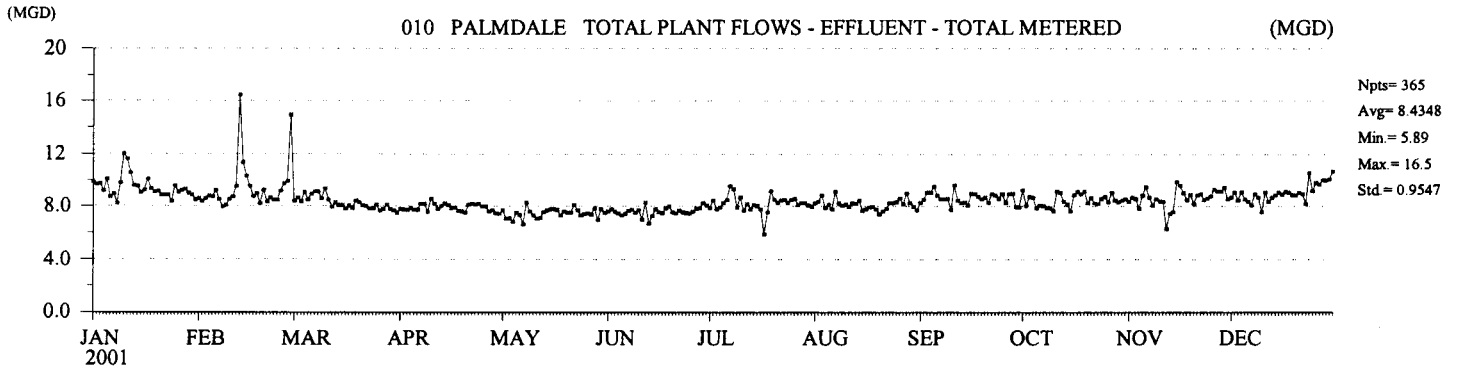
FIGURE 4-1

GRAPHICAL SUMMARIES

PALMDALE WRP
(JAN 1, 2001) - (DEC 31, 2001)
365 Days







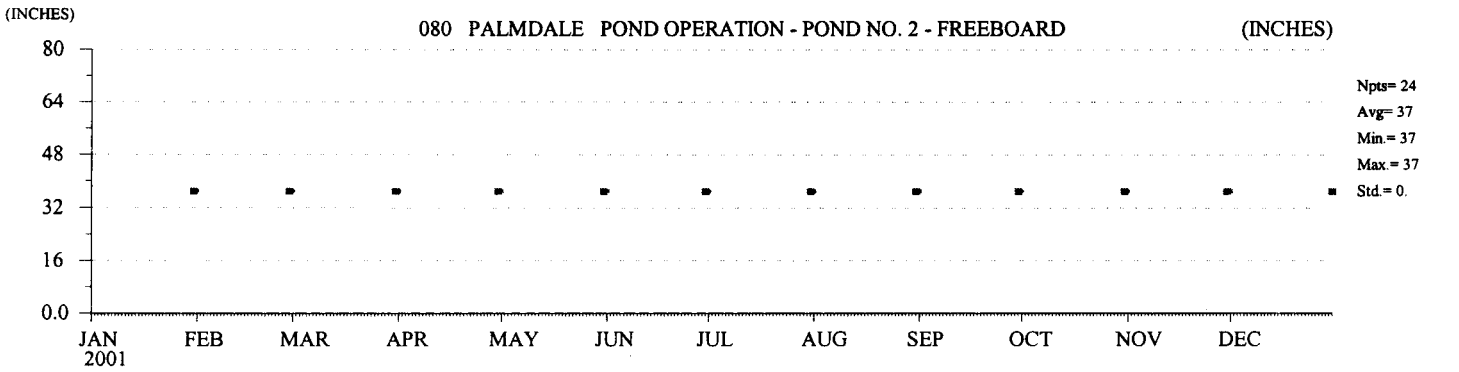


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EXHIBIT 1-2 TO CITY OF LOS ANGELES' RESPONSE TO DISCOVERY ORDER

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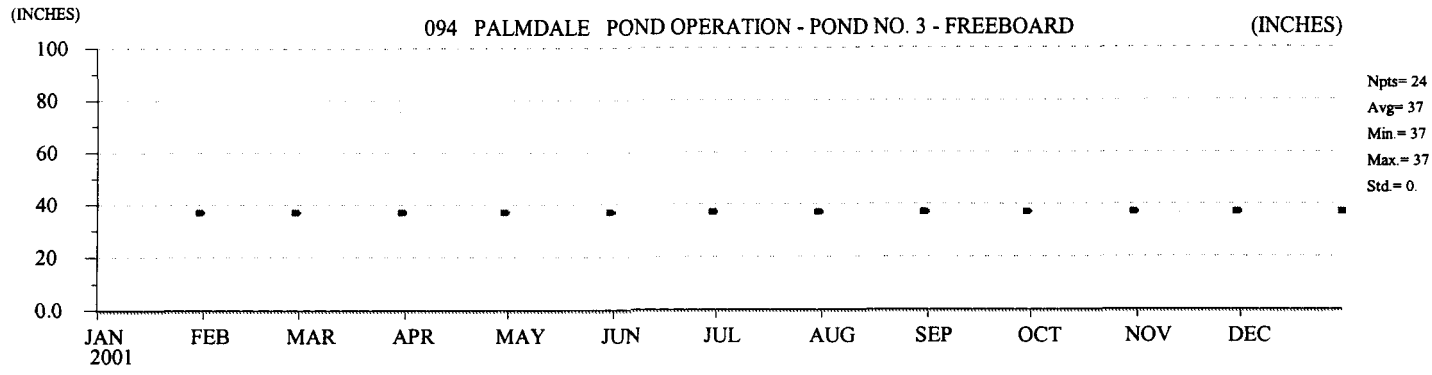
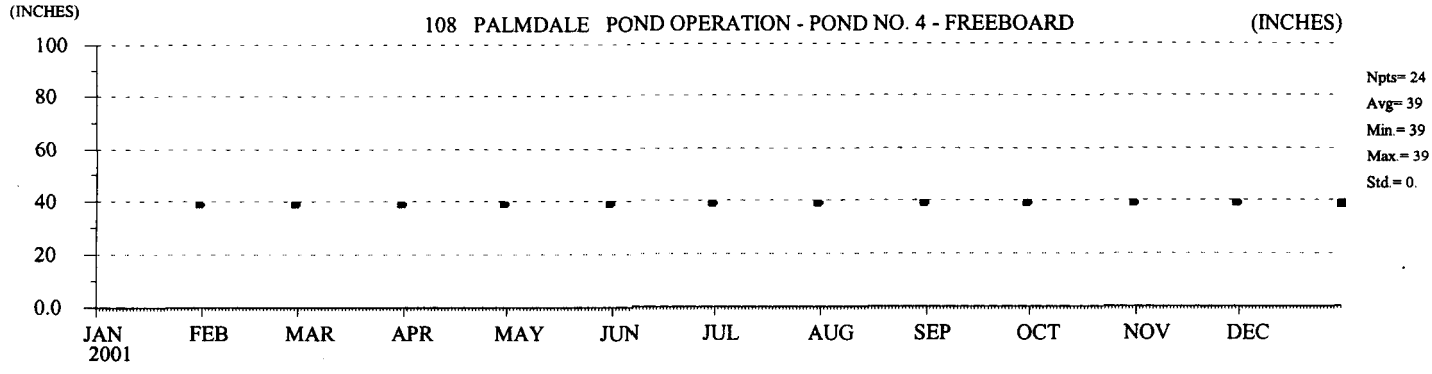
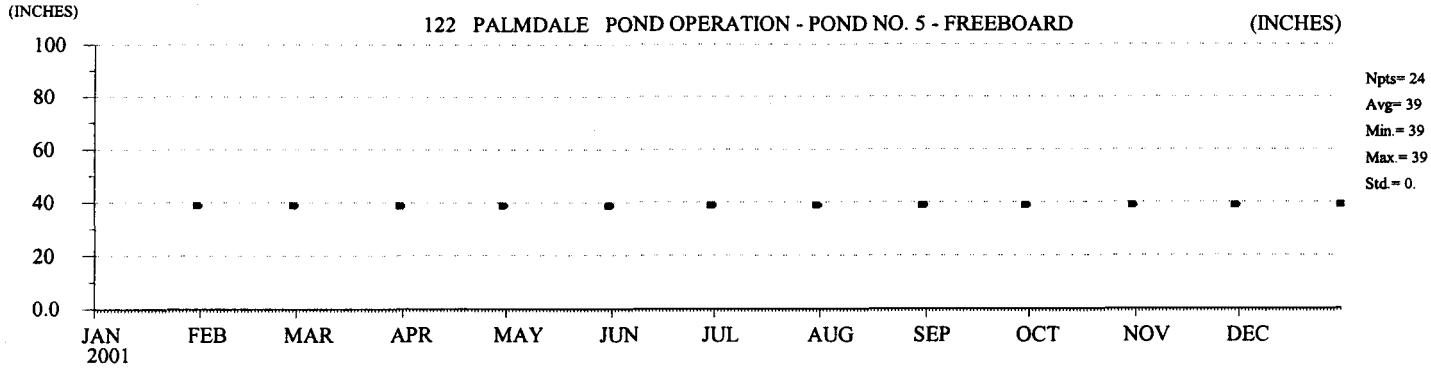
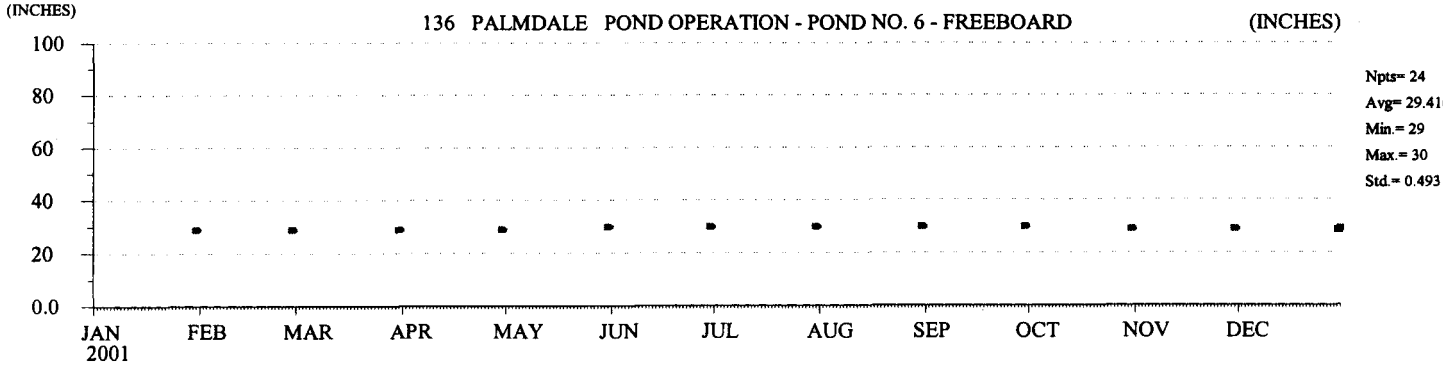
365 Days









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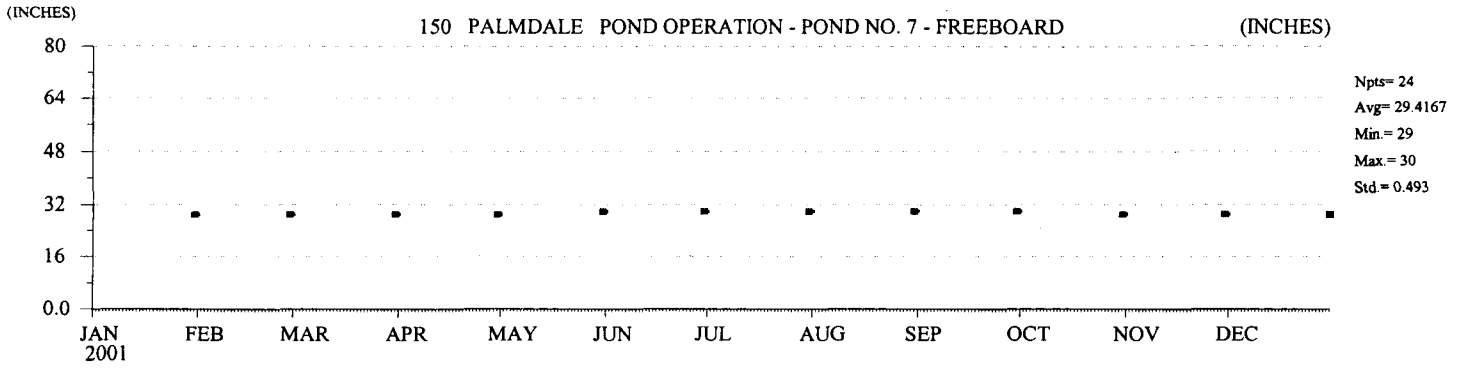

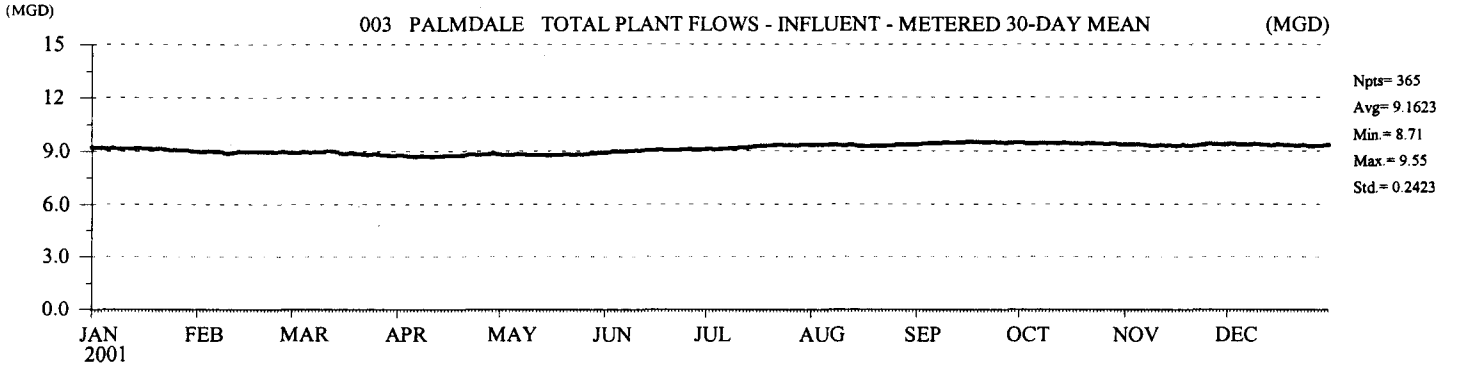

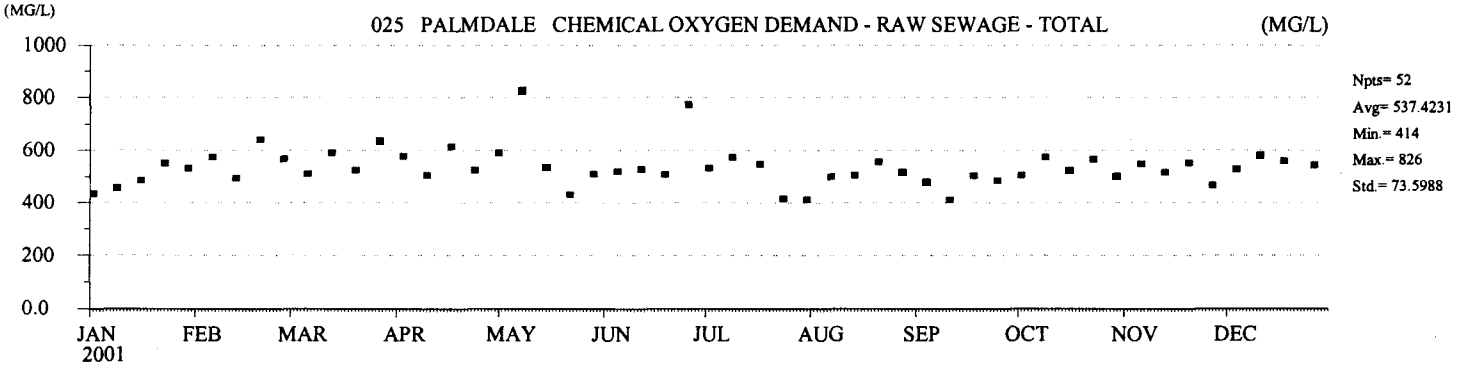

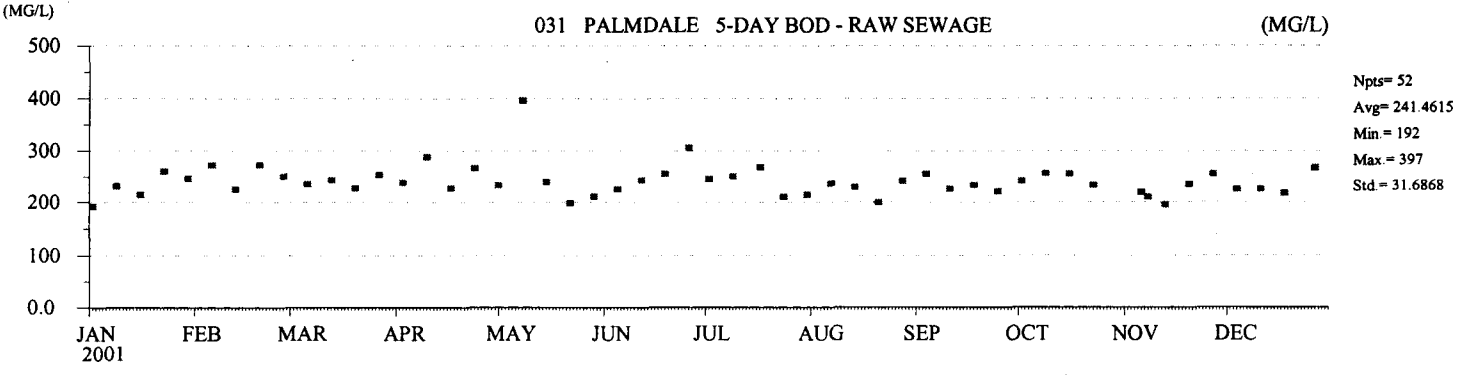

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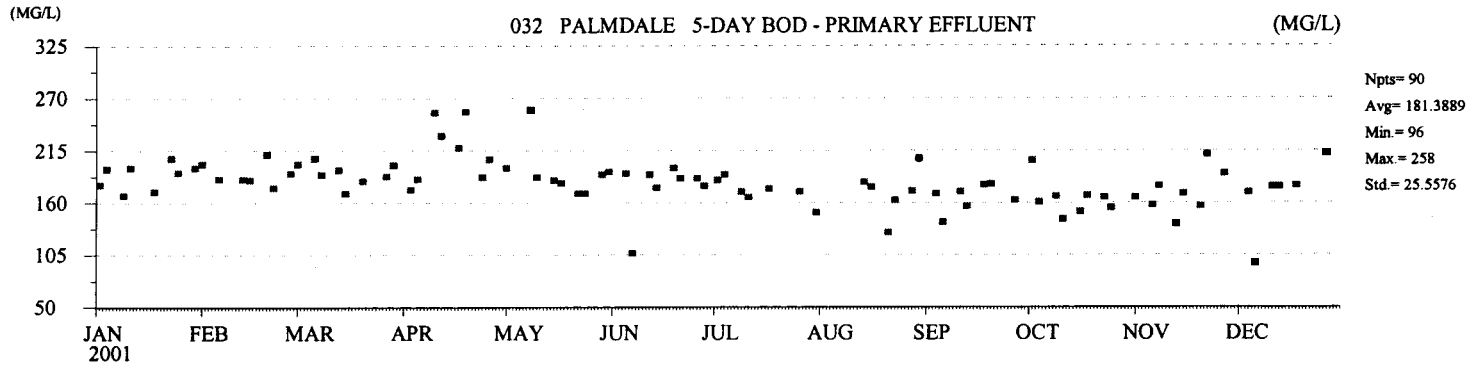
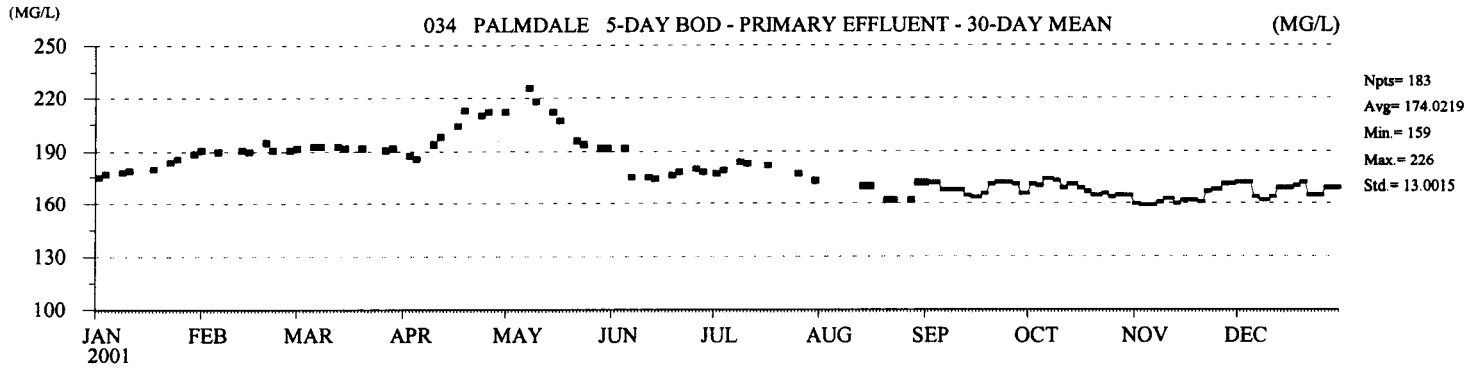
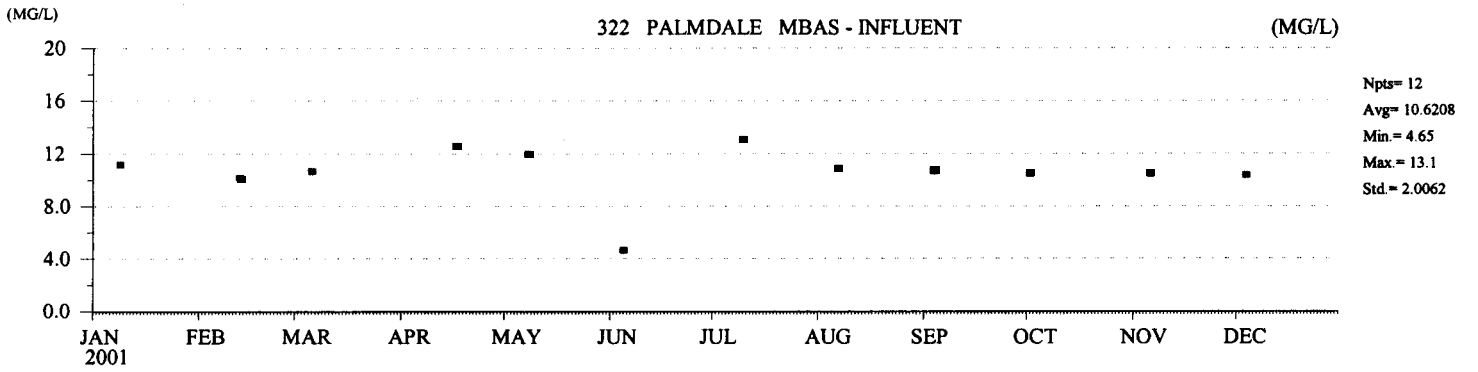
365 Days







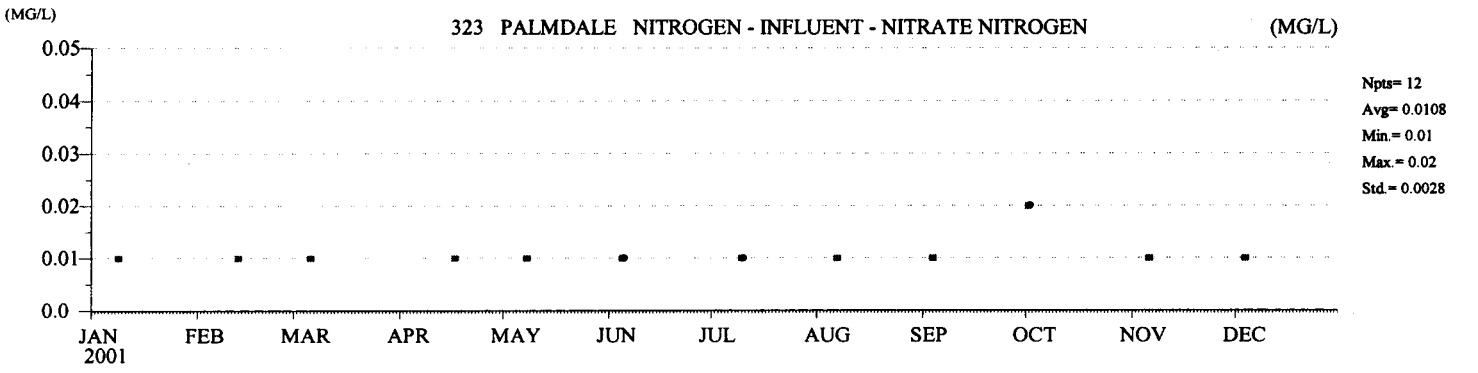


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EXHIBIT 1-2 TO CITY OF LOS ANGELES' RESPONSE TO DISCOVERY ORDER

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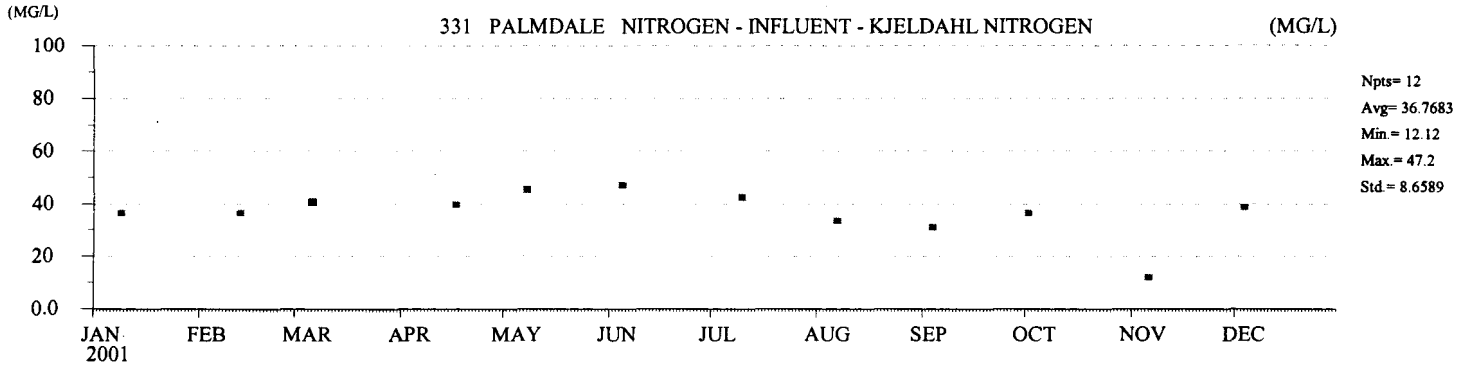
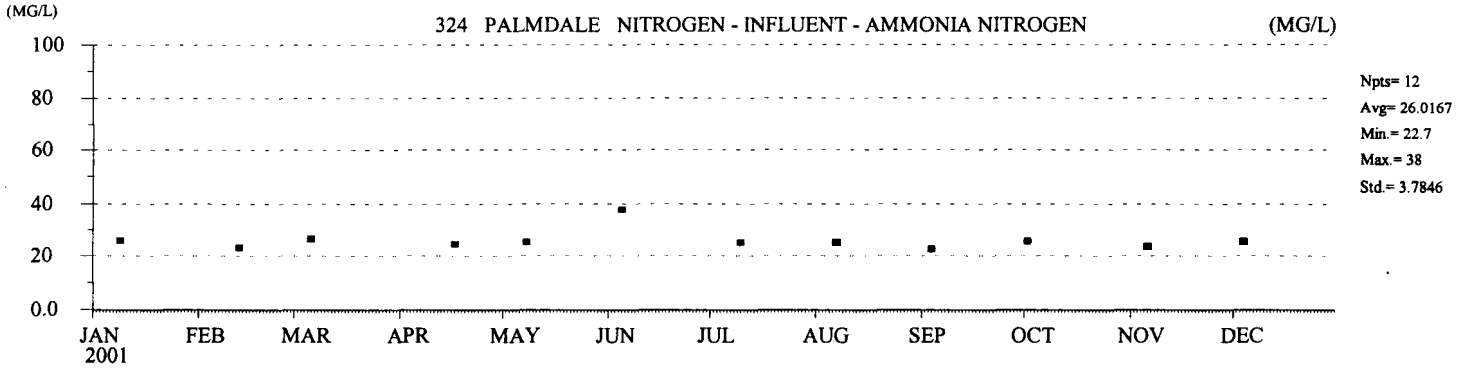
(JAN 1, 2001) - (DEC 31, 2001)
365 Days





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PALMDALE WATER RECLAMATION PLANT

CHAPTER 5

LONG TERM
WASTEWATER MONITORING SUMMARIES

CHAPTER 5

LONG TERM WASTEWATER MONITORING SUMMARIES

5.1 INTRODUCTION

Long term monitoring summaries are provided to show trends in wastewater quality and the effects of changes in plant operations. Annual averages are presented in both graphical and tabular form. Only a limited number of parameters, primarily metals, are reported. No permit limits are indicated because they have changed during the life of this plant. The figures and tables in this chapter are for observation of long term trends. Non-detect values are reported here with actual numerical values without the less than designation (<) or, in the cases of Total Detectable DDT and PCBs, as zero. In addition, in cases where a range in concentration is reported for the annual average, the upper non-detect value of that range is reported as the annual average in Table 5-1 and Figure 5-1. Often, the reported value is actually the method detection level for the constituent. As such, in some cases (e.g., Oil & Grease), a rise in the concentration in the table and graph simply indicates an increase in the analytical detection level from previous years.

5.2 TABULAR SUMMARIES

Table 5-1 presents tabular summaries of the data presented graphically in Figure 5-1. Parameters in the tabular summaries are generally arranged in numerical order of the laboratory test codes which are described in Chapter 4.

5.3 GRAPHICAL SUMMARIES

Long term summaries of selected influent and effluent parameters are presented in a series of graphs all included under Figure 5-1. Parameters are generally arranged in numerical order of the laboratory test codes which are described in Chapter 4. Where both influent and effluent values for the same parameter are reported, they are combined in a single graph. The graphs present annual means for the period 1975-2001.

TABLE 5-1 (Page 1 of 7)
LONG TERM TABULAR SUMMARIES
PALMDALE WATER RECLAMATION PLANT (Annual Averages)

Parameter	Flow	Flow	pH	pH	Suspended Solids	Suspended Solids	Total Dissolved Solids	Total Dissolved Solids
Test Code	001	001	101	101	151	151	155	155
Sample Location	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
Sample Type	Cont.	Cont.			24-hr	24-hr	24-hr	24-hr
Units	MGD	MGD	pH	pH	mg/L	mg/L	mg/L	mg/L
1975	1.58	0.51	7.5	8.4	326	162	422	477
1976	1.62	0.74	7.4	8.0	289	119	381	468
1977	1.61	0.77	7.4	8.1	421	114	389	465
1978	1.71	0.84	7.4	8.0	426	127	405	460
1979	1.83	0.92	7.6	8.1	400	115	382	456
1980	1.94	0.86	7.6	8.0	289	118	378	436
1981	2.06	0.60	7.2	7.9	295	132	390	442
1982	2.22	0.78	7.2	7.7	232	140	369	393
1983	2.39	0.92	6.9	7.6	247	143	358	389
1984	2.79	1.49	7.2	7.5	266	108	368	427
1985	3.29	2.21	7.3	7.8	210	88	426	470
1986	3.78	2.36	7.4	7.8	242	77	404	462
1987	4.57	3.26	7.5	7.6	203	127	423	462
1988	4.79	3.45	7.5	7.8	244	136	498	554
1989	6.44	3.59	7.6	7.8	341	122	539	667
1990	7.17	4.88	7.5	8.0	306	119	525	593
1991	7.86	4.89	8.1	8.2	351	141	525	581
1992	7.43	5.53	7.5	8.1	290	139	605	469
1993	7.53	6.33	7.6	8.3	299	124		590
1994	7.70	6.70	7.5	8.3	344	110		543
1995	7.82	7.21	7.5	8.3	267	117		526
1996	7.95	7.27	7.3	8.3	230	114		497
1997	8.26	7.54	7.3	8.2	226	117		496
1998	8.32	8.18	7.6	8.4	208	118		489
1999	8.57	7.80	7.5	8.2	254	114		483
2000	9.06	8.28	7.6	8.3	256	110	499	516
2001	9.17	8.44	7.5	8.2	257	106	490	531

TABLE 5-1 (Page 2 of 7)
LONG TERM TABULAR SUMMARIES
PALMDALE WATER RECLAMATION PLANT (Annual Averages)

Parameter	Ammonia-Nitrogen	Organic-Nitrogen	Nitrate-Nitrogen	Nitrite-Nitrogen	Nitrate-Nitrogen plus Nitrite-Nitrogen	Total Nitrogen	Total Cyanide	Sulfate
Test Code	201	202	204	205	951	208	206	257
Sample Location	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent	Effluent
Sample Type	24-hr	24-hr	24-hr	24-hr	24-hr	24-hr	24-hr	24-hr
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1975								
1976								
1977								
1978								
1979								
1980								
1981	8.60	16.00	0.40					
1982	12.30	15.20	0.52					
1983	12.20	17.20	0.19					
1984	11.60	13.40	0.06				0.02	62
1985	15.70	12.00	0.11				0.01	62
1986	18.00	10.80	0.21	0.10	0.31	29.11	0.01	72
1987	17.10	13.20	0.10	0.10	0.20	30.50	0.03	77
1988	13.30	23.20	0.09	0.20	0.29	36.79	0.01	100
1989	9.70	19.50	0.25	0.42	0.67	29.87	0.01	103
1990	13.30	9.00	0.11	0.28	0.39	22.69	0.01	72
1991	10.23	15.08	2.60	0.59	3.19	28.50	0.01	84
1992	8.02	15.31	1.87	1.66	3.53	26.87	0.01	79
1993	7.24	13.69	2.49	1.40	3.89	24.82	0.01	69
1994	8.31	14.06	1.63	1.41	3.04	25.41	0.01	88
1995	9.65	14.83	0.65	1.41	2.06	26.54	0.01	85
1996	9.04	13.40	1.19	1.52	2.71	25.15	0.01	74
1997	9.04	11.97	1.40	0.66	2.06	23.07	0.01	72
1998	9.10	13.93	1.56	0.87	2.43	25.46	0.01	73
1999	11.84	12.78	1.52	0.63	2.15	26.75	0.01	72
2000	11.60	12.60	1.17	1.19	2.36	26.56	0.01	88
2001	13.90	12.70	0.82	0.02	0.84	27.45	0.01	101

TABLE 5-1 (Page 3 of 7)
LONG TERM TABULAR SUMMARIES
PALMDALE WATER RECLAMATION PLANT (Annual Averages)

Parameter	Chloride	Phenols	Phenols	Fluoride	Boron	Detergents (MBAS)	Detergents (MBAS)
Test Code	301	312	312	313	314	315	315
Sample Location	Effluent	Influent	Effluent	Effluent	Effluent	Influent	Effluent
Sample Type	24-hr	24-hr	24-hr	24-hr	24-hr	24-hr	24-hr
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1975		0.05	0.002			8.4	0.09
1976		0.07	0.003			8.2	0.16
1977		0.17	0.003			8.4	0.10
1978		0.07	0.006			9.1	0.11
1979		0.06	0.004			8.2	0.28
1980		0.05	0.007			5.6	0.16
1981		0.04	0.001			6.1	0.10
1982		0.03	0.003			5.5	0.18
1983		0.04	0.005			3.1	0.12
1984	45	0.05	0.007			5.4	0.14
1985	60	0.06	0.009			5.7	0.21
1986	64	0.06	0.010			6.5	0.16
1987	79	0.05	0.009	0.19	0.47	5.7	0.70
1988	101	0.05	0.005	0.28	0.43	3.8	0.30
1989	123	0.04	0.014	0.26	0.43	6.7	0.45
1990	143	0.05	0.002	0.34	0.55	7.7	0.22
1991	112	0.07	0.016	0.27	0.53	5.8	0.39
1992	112	0.09	0.010	0.28	0.47	5.2	0.26
1993	103	0.06	0.010	0.23	0.70	7.2	0.19
1994	119	0.12	0.003	0.28	0.56	7.2	0.20
1995	98	0.10	0.004	0.24	0.50	5.6	0.19
1996	95	0.05	0.005	0.43	0.48	6.1	0.19
1997	102	0.13	0.001	0.25	0.47	6.9	0.20
1998	102	0.05	0.001	0.25	0.47	7.7	0.25
1999	102	0.03	0.004	0.25	0.44	8.7	0.27
2000	110	0.01	0.006	0.31	0.50	11.7	0.24
2001	119	0.05	0.007	0.29	0.44	10.6	0.31

TABLE 5-1 (Page 4 of 7)
LONG TERM TABULAR SUMMARIES
PALMDALE WATER RECLAMATION PLANT (Annual Averages)

Parameter	BOD (401/402)*	BOD (401/402)	COD (403/404)*	COD (403/404)	Oil & Grease	Oil & Grease	Total Detectable DDT	Total Detectable DDT
Test Code	401	401	403	403	408	408	507	507
Sample Location	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
Sample Type	24-hr	24-hr	24-hr	24-hr	Grab	Grab	24-hr	24-hr
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L
1975	165	36		277	176	5.0	0.45	0.08
1976	175	30		250	161	8.5	0.45	0.14
1977	186	30		255	155	5.6	0.36	0.11
1978	240	48		274	146	9.4	0.31	0.06
1979	201	51		290	134	14.4	0.14	0.07
1980	199	49		275	161	6.6	0.10	0.06
1981	180	34		277	99	8.4	0.10	0.06
1982	220	47	665	290	84	8.0	0.03	0.00
1983	264	41	728	284	59	7.0	0.00	0.00
1984	248	55	567	229	70	8.0	0.08	0.00
1985	271	49	614	209	66	11.0	0.02	0.01
1986	275	25	602	103	71	3.4	0.01	0.00
1987	248	28	545	103	41	4.9	0.00	0.00
1988	286	21	630	94	50	3.9	0.00	0.00
1989	276	21	633	87	31	1.2	0.01	0.00
1990	276	24	589	94	42	1.7	0.01	0.00
1991	282	22	599	89	54	1.6	0.04	0.00
1992	274	19	633	68	72	1.9	0.01	0.01
1993	258	25	583	72	50	1.5	0.00	0.00
1994	265	25	581	72		1.3	0.00	0.00
1995	245	21	507	75		1.6	0.01	0.00
1996	236	27	491	73		1.6	0.00	0.00
1997	255	16	509	80		1.7	0.00	0.00
1998	233	27	481	72		1.8	0.01	0.00
1999	238	23	538	78		2.6	0.00	0.00
2000	235	26	535	65		2.7	0.01	0.01
2001	243	22	538	88		5.0	0.00	0.00

* Before 1986, tests were based on un-filtered samples. As of 1986, tests have been based on filtered samples.