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**ROCKY MOUNTAIN ARSENAL  
SOUTH PLANTS CERCLA PRETREATMENT SYSTEM  
OPERATIONAL ASSESSMENT REPORT**

**FY91**

**FINAL REPORT**

**BY**

**ENVIRONMENTAL ENGINEERING DIVISION  
PROGRAM MANAGER, ROCKY MOUNTAIN ARSENAL  
COMMERCE CITY, COLORADO 80022-2180**

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13. ABSTRACT (Maximum 200 words)  THIS REPORT DOCUMENTS AND EVALUATES THE TREATMENT PROCESS PERFORMANCE RELATED TO THE SYSTEM OPERATIONS. IT IS THE THIRD ANNUAL REPORT AND COVERS THE OPERATING PERIOD BETWEEN OCTOBER 1990 AND SEPTEMBER 1991 (FY91). THE OBJECTIVES OF THIS REPORT ARE: (1) TO ASSESS THE EFFECTIVENESS OF THE SOUTH PLANTS IN TREATING LIQUID WASTES THAT WERE GENERATED FROM THE VARIOUS ACTIVITIES AT RMA. (2) TO DOCUMENT SYSTEM OPERATING PARAMETERS.
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## PREFACE

This study was conducted as part of a cooperative effort by personnel from the Environmental Engineering Division (EED), Operations Branch (OB)\* of the Program Manager for Rocky Mountain Arsenal (PMRMA) and the U.S. Army Engineer Waterways Experiment Station (WES). Funding for participation by WES was provided by the PMRMA via military interdepartmental purchase request (MIPR) number 0933. Project Management was provided by Messrs. David W. Strang, EED, and Norman R. Francingues, WES Environmental Laboratory (EL).

The contributing authors to this report were Douglas W. Thompson and Ms. Beth C. Fleming (WES-EL). The authors acknowledge the support and assistance of the following people and organizations during this study: Ms. Dianna R. Pantleo, and Messr. Bruce Fritz, D. P. Associates.

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\* Formerly the Remedial Action Division (RAD), Remedial Operations Branch (ROB).

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SOUTH PLANTS CERCLA PRETREATMENT SYSTEM  
OPERATIONAL ASSESSMENT  
FY91 ACTIVITIES

PART I: INTRODUCTION

Background

1. The South Plants CERCLA Pretreatment System Operational Assessment described herein has been prepared to document and evaluate the treatment process performance related to the system operations. This is the third annual report and covers the operating period between October 1990 and September 1991 (FY91).

Treatment System Description

2. The South Plants CERCLA Pretreatment System (CPS) was initially constructed in 1982 primarily as a means of treating waste from the analytical and bioassay laboratories at the Rocky Mountain Arsenal (RMA). Over the years, the CPS has been increasingly used for the treatment of other wastewaters generated on the arsenal from various field activities. The system was upgraded in 1988 to include an air stripper for the polishing removal of volatile organics. The system was modified during the period May 1990 through September 1990 at which time the existing 24-inch diameter activated carbon column and 8-inch diameter activated alumina column were removed and replaced with two 55-gallon contactors, one containing activated carbon and the other containing activated alumina. These modifications were made to facilitate easier replacement of spent adsorption media and reduce the plugging experienced with the two columns. The modifications were completed by RMA personnel and the CPS was placed back in operation during October 1990.

3. At the start of FY91, the CPS consisted of a steam-heated, 170,000 gallon, above-ground holding tank; a pump; a small in-line cartridge filter; a 55-gallon contactor containing activated carbon; a 55-gallon contactor containing activated alumina; a 30-gallon surge tank; a transfer pump; a 10,000-gallon holding tank; a feed pump; and, an air stripper (see Figure 1). The adsorption contactors limited the maximum flow to approximately 3 gallons per minute (gpm). The air stripper has a maximum design flow of approximately 10 gpm. The activated carbon served to remove organic contaminants while the activated alumina served to remove fluoride. The air stripper

# SOUTH PLANTS WASTEWATER TREATMENT SYSTEM FLOW DIAGRAM

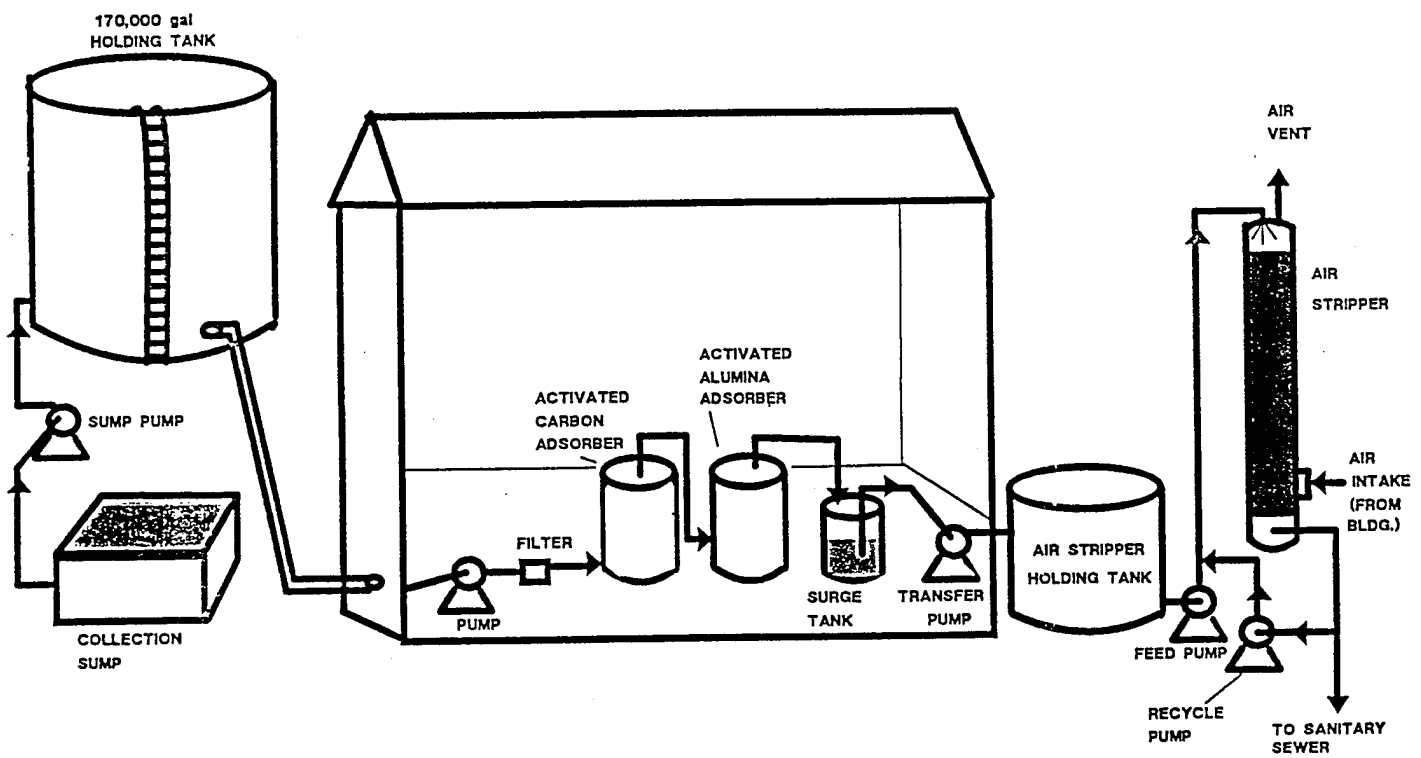


Figure 1. System Layout

served as a polishing technique to remove additional volatile organics not effectively removed by the activated carbon.

4. In operation, the wastewater was fed from the 170,000-gallon holding tank through the in-line filter, through the activated carbon contactor, through the activated alumina contactor, and into the small surge tank. The wastewater was then pumped to the 10,000-gallon holding tank until it reached a high level controlled by a level sensor at which time the air stripper was started and operated until the holding tank was emptied. The treated water was discharged to the sanitary sewer. The system was operated during normal working hours by RMA personnel periodically during FY91.

5. During FY91, the CPS was used to treat wastewater generated from the RMA laboratory, decontamination pad operations, remedial investigation studies, comprehensive monitoring program, and interim response actions. The wastewater from the laboratory discharged into a sump located outside the northwest corner of the laboratory building. Other wastewaters were transported from their point of generation (i.e. the South Plants Decontamination Facility) by tanker trucks and discharged into the sump. From the sump, the wastewater was pumped by means of an underground pipeline to the 170,000-gallon holding tank located adjacent to the CPS building.

#### Report Objectives

6. Report objectives include:
  - a. To assess the effectiveness of the South Plants in treating liquid wastes that were generated from the various activities at RMA.
  - b. To document system operating parameters.

#### Approach

7. The approach to developing this study incorporates direction of the Environmental Engineering Division (EED) at RMA. EED established and provided the reporting framework and objectives, the database, and general technical guidance. The U.S. Army Engineer Waterways Experiment Station (WES), Vicksburg, Mississippi, provided specialized environmental engineering assessments.



## PART II: SYSTEM OPERATIONS

### System Operational Summary

8. As previously discussed, the CPS was modified during FY90 and was placed back in operation in October 1990. As in previous years, a record of FY91 system operations for the CPS was maintained by RMA plant operations personnel with major events documented on a daily basis. This daily record contains information on the operation, maintenance activities, and repairs of the treatment equipment. It also details other events such as plant downtime, equipment failure, and carbon and alumina replacement. The daily record indicates that the system operated and discharged treated water to the sanitary sewer system for three weeks in October 1990; nine weeks in January, February, and March 1991; and ten weeks in July, August, and September 1991. The system also operated in July and August in a recirculation mode with no discharge to the sanitary sewer as described below.

9. Cold weather in late October 1990 resulted in frozen piping and gauges at the treatment plant. The plant was shut down on November 3, 1990, for repairs. The repairs were completed and the plant was placed in operation on January 14, 1991. The treatment system operated until the middle of March 1991 when the influent feed pump needed repair work. While repairs of the feed pump were ongoing, a batch of wastewater from the South Plants Decontamination Facility was transferred to the CPS storage tank which was thought to contain a high fluoride concentration based on its source of generation. Onsite testing of the wastewater in the storage tank using a specific ion electrode method indicated fluoride concentrations approaching 50 mg/ℓ. This level was later confirmed by laboratory testing under the normal sample collection and analysis program. A concentration of 39.0 mg/ℓ was reported in an influent sample collected on August 6, 1991. Based on the higher than normal fluoride concentration in the influent storage tank, a management decision was made to modify the treatment system and to operate in a manner that permitted recirculation of effluent to assure sufficient fluoride removal prior to discharge.

10. The modifications were made between May 1991 and July 1991. In addition to allowing for recirculation, a 55-gallon drum containing limestone chips was placed on line ahead of the carbon adsorber. The concept was that the wastewater flowing in contact with the limestone would dissolve some of the limestone resulting in an increased calcium concentration effecting a reduction in fluoride due to precipitation of calcium fluoride. In late July 1991, the treatment system was placed back in

operation. Wastewater flowed through the limestone, activated carbon, activated alumina and into the 10,000-gallon holding tank. The fluoride concentration was then checked using the onsite fluoride detection method. If the fluoride concentration exceeded 2.0 mg/ℓ, the wastewater was recycled through the limestone, carbon, and aluminum treatment process. Once the 2.0 mg/ℓ criteria was met, the wastewater was then treated using the air stripper and discharged. No wastewater was discharged to the sanitary sewer from the CPS during all of July and most of August 1991. Wastewater was discharged to the sanitary sewer starting on August 30, 1991, when the effluent fluoride concentration had been reduced to below 2.0 mg/ℓ. During September 1991, the treatment system was operated normally and in the recycle mode when necessary to achieve the fluoride concentration criteria. By the end of September, most of the high fluoride wastewater had been treated and the fluoride concentration in the influent to the system was within normal values for single pass treatment. The treatment plant operation was converted back to a single pass mode and was successful in producing an effluent meeting the fluoride concentration criteria.

#### System Flow Quantities

11. The volume of water treated by the CPS was measured using a totalizing flow meter located on the effluent line from the carbon/alumina treatment subsystem. The meter was read and the values recorded on a daily basis while the system was operating. Weekly flow quantities were calculated from the daily reports. Flow rates were calculated by dividing the total flow for the week by 10,080 minutes per week. Flow quantities and calculated flow rates for the CPS for FY91 are presented in Appendix A.

12. A graph of weekly flow rates has been prepared and is presented in Figure 2. The maximum flow rate during FY91 was 2.06 gpm. The total volume of water treated and discharged in FY91 was 189,115 gallons which was somewhat less than the 240,249 gallons treated in FY90.

#### Carbon/Alumina Usage

13. The CPS plant operation records indicate that during FY91, 3600 pounds of activated carbon and 4240 pounds of activated alumina were used in the respective adsorption contactors. Based on the volume of water treated, the usage rates were

# South Plants FY91

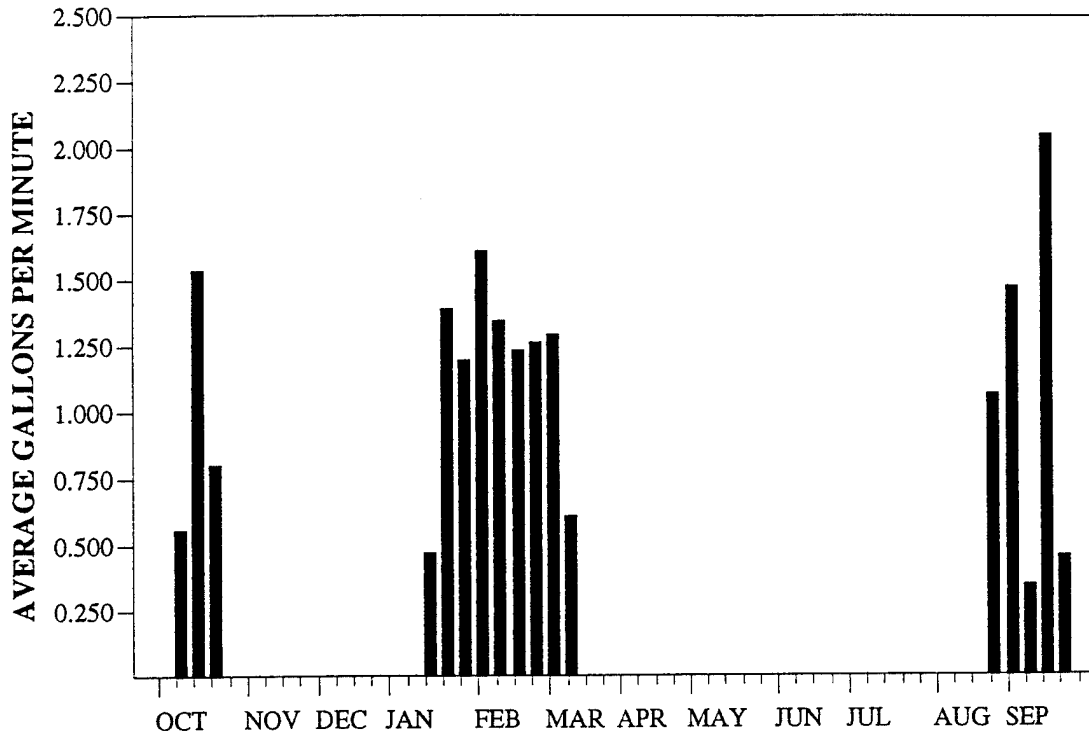


Figure 2. System Flow Quantities

16.4 pounds of carbon and 19.3 pounds of alumina per thousand gallons of water treated.

#### System Water Quality

14. The quality of the water entering the treatment system, after carbon/alumina treatment, and leaving the system was monitored periodically by taking grab samples and analyzing them for a variety of analytes. These samples were collected from sampling ports located in the influent line, in the line between the carbon/alumina treatment subsystem and the air stripper holding tank, and in the effluent line from the air stripper. Sampling was conducted during the three periods of operation in FY91.

15. All water samples were collected in new glass containers (for organics analyses) or plastic containers (for metals analyses), sealed, and transported to the appropriate analytical laboratory at RMA or their contractor for analysis. In FY91, the samples were generally analyzed for the analytes listed in Table 1. The analytes are organized in four groups including chemical-specific applicable or relevant and appropriate requirements (ARAR) analytes, to be considered (TBC) analytes, other target analytes, and GC/MS scan. As indicated in the Final Decision Document for the CERCLA Wastewater Treatment System, Interim Response Action (IRA) at RMA, dated July 1990, the existing South Plants Wastewater Treatment Facility (SPWTF) was to continue to be operated prior to the implementation of the new system. The SPWTF would be subject to and comply with the chemical-specific ARAR's identified and would attain these limitations to the maximum extent practicable. The chemical-specific ARAR analytes each have concentration criteria which are applied to the effluent from the system. As a result, every attempt was made to operate the plant so as to maintain the concentrations of these analytes in the effluent below their respective criteria. The TBC analytes are compounds with concentration criteria which do not come within the definition of ARARS but were considered in the design of the new CERCLA system. The other target analytes are analytes for which promulgated standards were not found. GC/MS scans are conducted to identify any organic contaminants that are not included in the other analyte categories. FY91 was the first year in which the chemical-specific ARAR criteria were applicable to the CPS. As a result, the operation of the CPS was directed towards meeting these specific criteria. Although the other analytes do not have specific concentration criteria applicable to

Table 1  
South Plants CERCLA Pretreatment System  
Analyte List for FY91

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A. Chemical-Specific ARAR Analytes:\*

Acrylonitrile  
Aldrin  
Arsenic  
Benzene  
Cadmium  
Carbon Tetrachloride  
Chlordane  
Chloride  
Chlorobenzene  
Chloroform  
Chromium  
Copper  
DDE  
DDT  
1,4-Dichlorobenzene  
1,2-Dichloroethane  
1,1-Dichloroethylene  
Trans-1,2-Dichloroethylene  
1,2-Dichloropropane  
Dieldrin  
Endrin  
Ethylbenzene  
Fluoride  
Hexachlorocyclopentadiene  
Lead  
Mercury  
Parathion  
Tetrachloroethylene  
Toluene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene  
Vinyl Chloride  
Zinc

B. TBC Analytes:\*\*

Atrazine  
Chloroacetic Acid  
Dibromochloropropane  
1,1-Dichloroethane

(Continued)

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\* As listed in the "Final Decision Document for the CERCLA Wastewater Treatment System IRA at RMA" dated July 1990.

\*\* Compounds listed in the Final Decision Document as "To Be Considered" in the design of the new system.

Table 1 (Concluded)

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B. TBC Analytes (Continued):

Dicyclopentadiene  
Diisopropylmethylphosphonate  
IMPA  
Methylene Chloride  
Methylisobutylketone  
Xylenes

C. Other Target Analytes:\*

Bicycloheptadiene  
p-Chlorophenylmethyl sulfur compounds  
Dithiane  
Dimethyldisulfide  
Fluoroacetic Acid  
Isodrin  
Malathion  
Oxathiane  
Thiodiglycol  
Supona  
Vapona

D. GC/MS Scan

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\* Target analytes listed in the Final Decision Document for which promulgated standards were not found.

the operation of the system, they have generally been analyzed for use in monitoring the overall performance of the system.

16. All analyses of samples were performed using standard methods. The data were subjected to a quality control review, validated, and placed into the PMRMA database by D. P. Associates. Data sets were prepared from the database for use in developing the tables and figures used in this report. The analytical data, statistical summaries, and GC/MS data are presented in Appendix B. The statistical summaries were developed for each analyte and include the total number of samples analyzed, the certified reporting limit (CRL), the number of samples with concentrations above the CRL, the percent samples with concentrations above the CRL, the method numbers, the unit of measurement, the mean concentration, the low concentration, and the high concentration. A mean concentration was only computed for sets of data where 65 percent or more of the readings were above the CRL. When the criterion was met, values falling below the CRL were made equal to the CRL and included in the computations.

17. The analytical data were used to prepare graphs of the system influent, effluent from the carbon/alumina treatment subsystem, and system effluent concentrations reported for the chemical-specific ARAR analytes during FY91. These graphs are presented in Figures 3 through 34. The analytical results reported for the other analytes are discussed later in the report. Each graph (except where noted) presents a plot of the contaminant concentrations reported and two lines indicating the CRL and the average concentration over FY91 where sufficient data were available to calculate an average. Each system effluent graph has a third line indicating the ARAR standard for the analyte. The ARAR standards are summarized in Table 2 and the source of each standard is identified. All values in the table and on the graphs are reported in micrograms per liter ( $\mu\text{g}/\ell$ ) except where noted.

#### Chemical-Specific ARAR Analytes

18. Acrylonitrile. The ARAR standard for acrylonitrile at the CPS is 2,600  $\mu\text{g}/\ell$ . Acrylonitrile was not specifically analyzed for during FY91; however, it was quantified in the three GC/MS analyses conducted in FY91. As a result, no graph was prepared for acrylonitrile. The GC/MS results indicate that no concentrations above 8.4  $\mu\text{g}/\ell$  were reported in any of the samples subjected to GC/MS analysis in FY91. Thus, no concentrations of acrylonitrile above the ARAR standard were reported for any CPS effluent samples in FY91.

Table 2  
Chemical-Specific ARAR Analytes

Analyte	Standard	Source
Acrylonitrile	2,600 $\mu\text{g}/\ell$	CBSM*
Aldrin	0.1 $\mu\text{g}/\ell$	CBSG**
Arsenic	50 $\mu\text{g}/\ell$	40 CFR § 141.11(b)†
Benzene	5 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
Cadmium	10 $\mu\text{g}/\ell$	40 CFR § 141.11(b)
Carbon Tetrachloride	5 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
Chlordane	0.1 $\mu\text{g}/\ell$	CBSM
Chloride	250,000 $\mu\text{g}/\ell$	CBSG
Chlorobenzene	300 $\mu\text{g}/\ell$	CBSG
Chloroform	100 $\mu\text{g}/\ell$	40 CFR § 141.12
Chromium	50 $\mu\text{g}/\ell$	40 CFR § 141.11(b)
Copper	200 $\mu\text{g}/\ell$	CBSM
DDE	0.1 $\mu\text{g}/\ell$	CBSM
DDT	0.1 $\mu\text{g}/\ell$	CBSM
1,4-Dichlorobenzene	75 $\mu\text{g}/\ell$	CBSG
1,2-Dichloroethane	5 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
1,1-Dichloroethylene	7 $\mu\text{g}/\ell$	CBSG
Trans-1,2-Dichloroethylene	7 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
1,2-Dichloropropane	6 $\mu\text{g}/\ell$	CBSG
Dieldrin	0.1 $\mu\text{g}/\ell$	CBSG
Endrin	0.1 $\mu\text{g}/\ell$	CBSM
Ethylbenzene	680 $\mu\text{g}/\ell$	CBSG
Fluoride	2,000 $\mu\text{g}/\ell$	CBSM
Hexachlorocyclopentadiene	49 $\mu\text{g}/\ell$	CBSG
Lead	50 $\mu\text{g}/\ell$	40 CFR § 141.11(b)
Mercury	2 $\mu\text{g}/\ell$	40 CFR § 141.11(b)
Parathion	0.3 $\mu\text{g}/\ell$	CBSM
Tetrachloroethylene	10 $\mu\text{g}/\ell$	CBSG
Toluene	2,420 $\mu\text{g}/\ell$	CBSG
1,1,1-Trichloroethane	200 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
1,1,2-Trichloroethane	28 $\mu\text{g}/\ell$	CBSG
Trichloroethylene	5 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
Vinyl Chloride	2 $\mu\text{g}/\ell$	40 CFR § 141.61(a)
Zinc	2,000 $\mu\text{g}/\ell$	CBSM

\* Colorado Basic Standards and Methodologies for Surface Water 3.1.0 (5CCR 1002-8).

\*\* Colorado Basic Standards for Groundwater.

† Maximum contaminant level (MCL) established under the National Primary Drinking Water Standards.



19. Aldrin. The ARAR standard for aldrin at the CPS is  $0.1 \mu\text{g}/\ell$ . As indicated in Figure 3, neither of the two influent samples analyzed for aldrin during FY91 were reported with concentrations in excess of the CRL. None of the fourteen carbon/alumina subsystem effluent samples were reported with concentrations in excess of the CRL. A single system effluent sample out of the sixteen collected was reported with an aldrin concentration above the ARAR standard. This sample was collected on October 10, 1990. The carbon/alumina effluent sample collected on this date was reported with an aldrin concentration below the CRL and the following weekly samples were below CRL (with no carbon change); therefore, the concentration reported above the ARAR standard for the system effluent sample is probably anomalous. None of the other fifteen system effluent samples collected during FY91 were reported with aldrin concentrations in excess of the CRL.

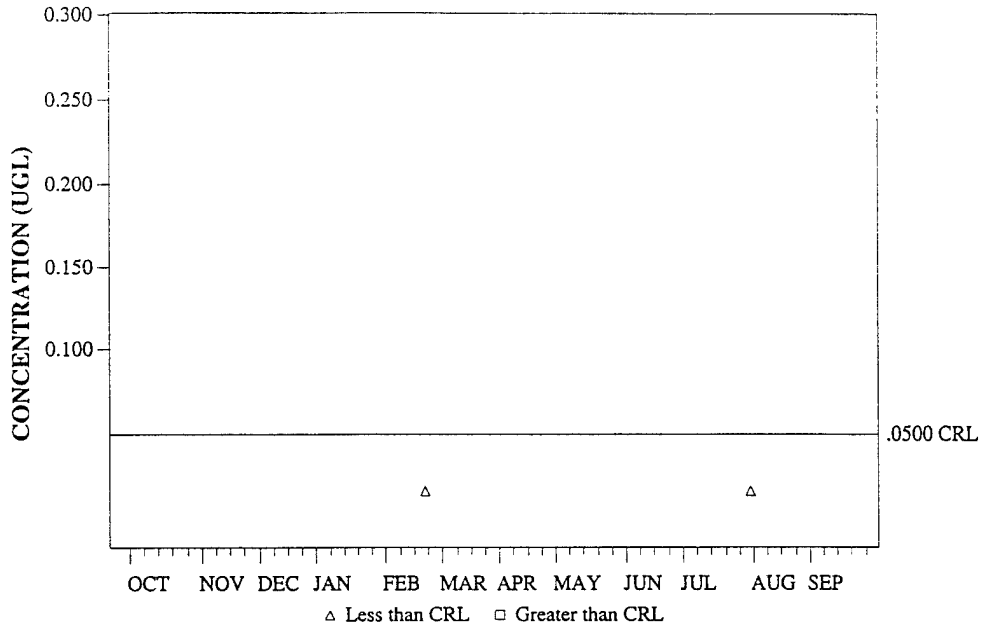
20. Arsenic. The ARAR standard for arsenic at the CPS is  $50 \mu\text{g}/\ell$ . The concentrations of arsenic reported for the three influent samples collected in FY91 ranged from  $3.4 \mu\text{g}/\ell$  to  $1300 \mu\text{g}/\ell$  with a mean value of  $494 \mu\text{g}/\ell$  as indicated in Figure 4. The concentrations reported for the three carbon/alumina effluent samples collected in FY91 ranged from  $10.8 \mu\text{g}/\ell$  to  $1400 \mu\text{g}/\ell$  with a mean value of  $474 \mu\text{g}/\ell$ . One of the three system effluent samples collected in FY91 exceeded the ARAR standard. A concentration of  $1700 \mu\text{g}/\ell$  was reported for the sample collected on August 7, 1991. The other CPS samples collected on this date were also reported as having arsenic concentrations in this range. The other two system effluent samples analyzed for arsenic in FY91 were reported with concentrations of  $12.5 \mu\text{g}/\ell$  and  $8.3 \mu\text{g}/\ell$  with an average for the year of  $574 \mu\text{g}/\ell$ . It should be noted that the CPS has no specific process for the removal of arsenic.

21. Benzene. The ARAR standard for benzene at the CPS is  $5 \mu\text{g}/\ell$ . As indicated in Figure 5, no concentrations of benzene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for benzene in FY91. Thus, no concentrations of benzene above the ARAR standard were reported for any system effluent samples in FY91.

22. Cadmium. The ARAR standard for cadmium at the CPS is  $10 \mu\text{g}/\ell$ . As indicated in Figure 6, no concentrations of cadmium above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for cadmium in FY91. Thus, no concentrations of cadmium above the ARAR standard were reported for any system effluent samples in FY91. It should be noted that the CPS has no specific process for the removal of cadmium.

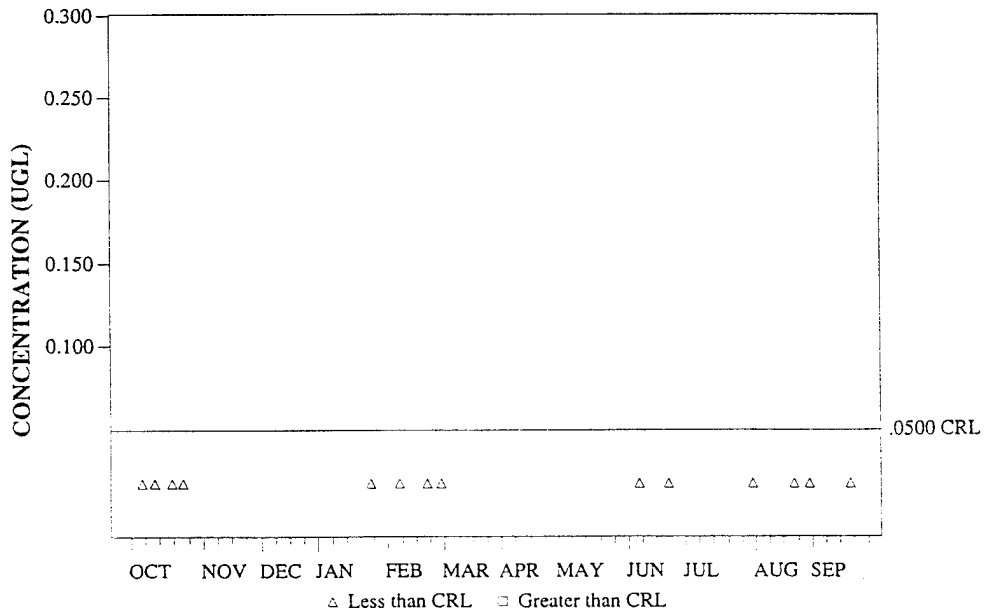
### SOUTH PLANTS PSIFIN - ALDRN

ALDRIN  
FY91



### SOUTH PLANTS PSAAEF - ALDRN

ALDRIN  
FY91



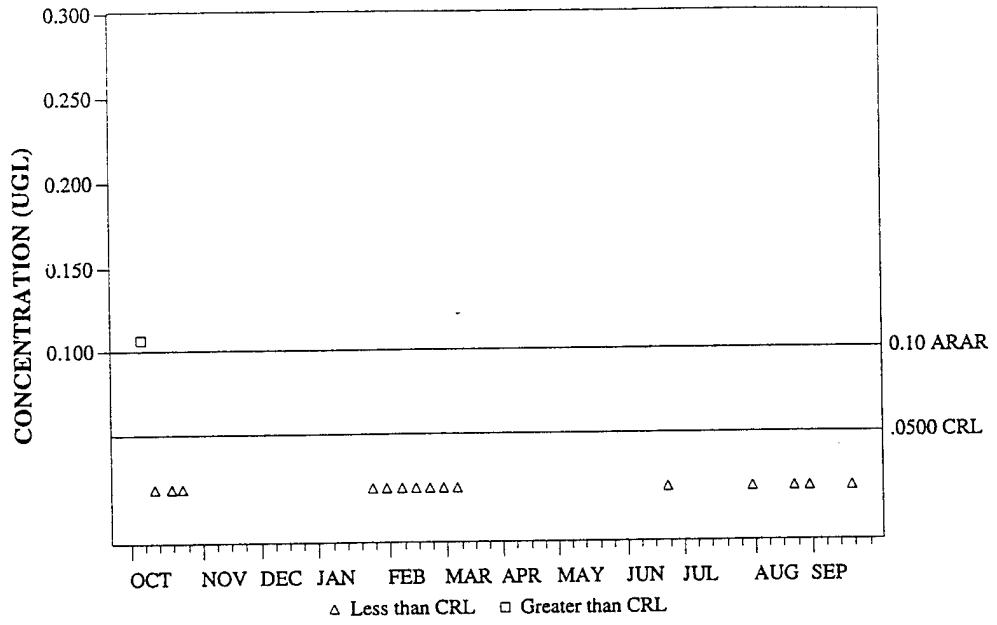
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Figure 3. (Continued)

# SOUTH PLANTS PSASEF - ALDRN

ALDRIN  
FY91



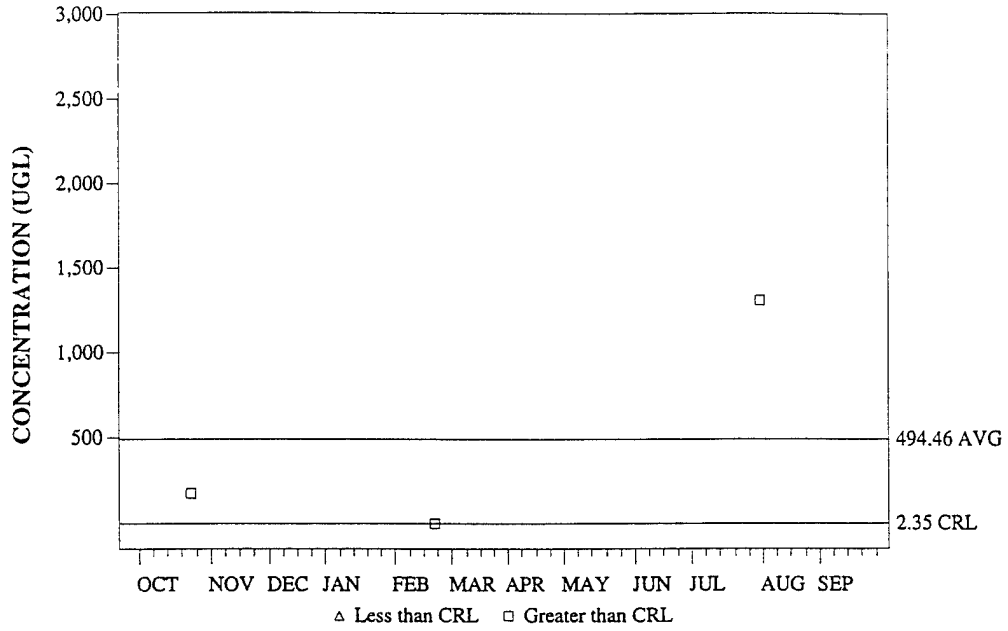
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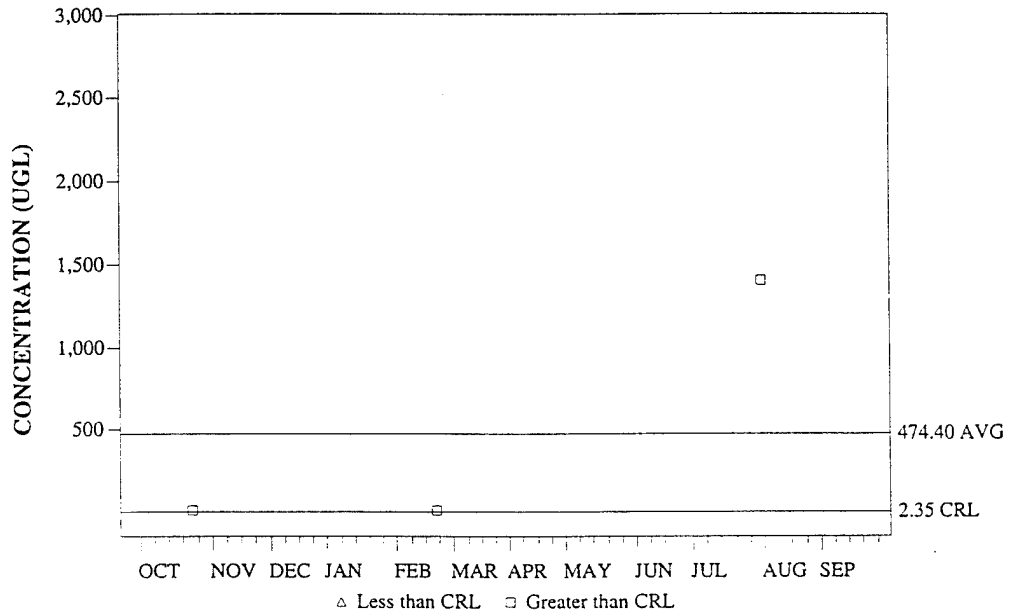
### SOUTH PLANTS PSIFIN - AS

ARSENIC  
FY91



### SOUTH PLANTS PSAAEF - AS

ARSENIC  
FY91



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Figure 4. (Continued)

SOUTH PLANTS PSASEF - AS  
ARSENIC  
FY91

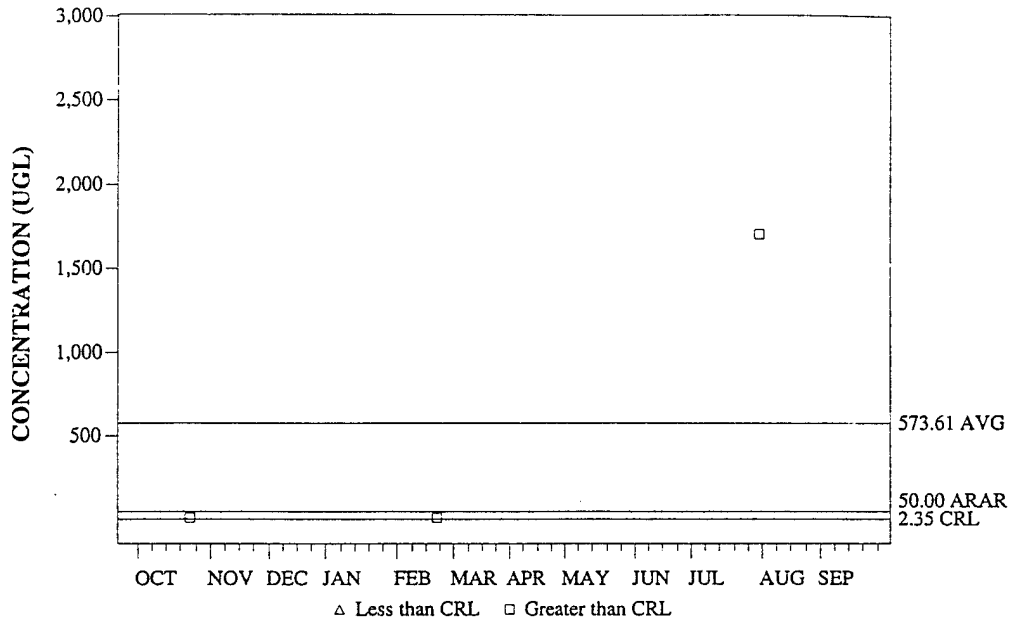
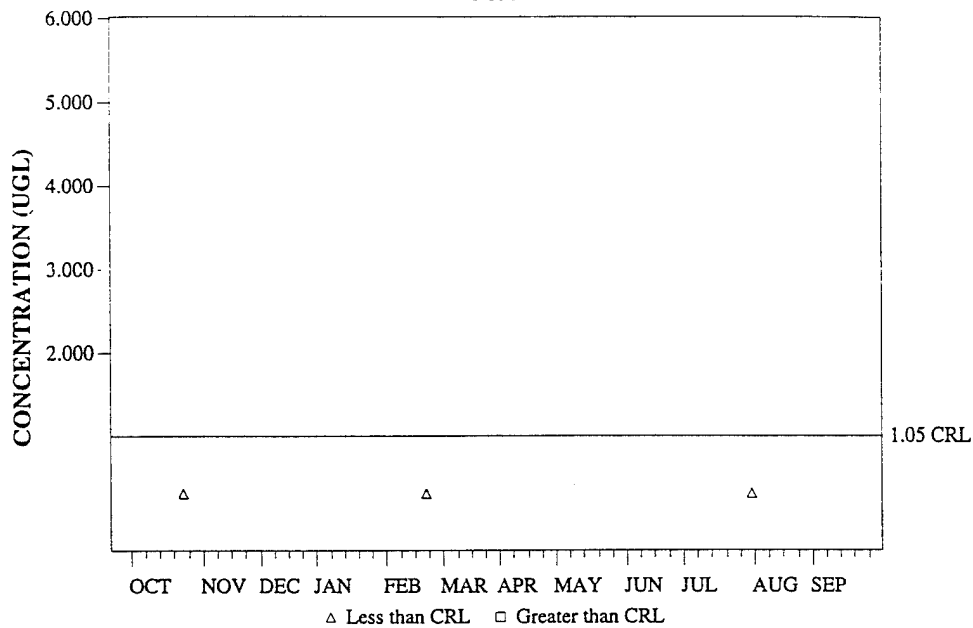
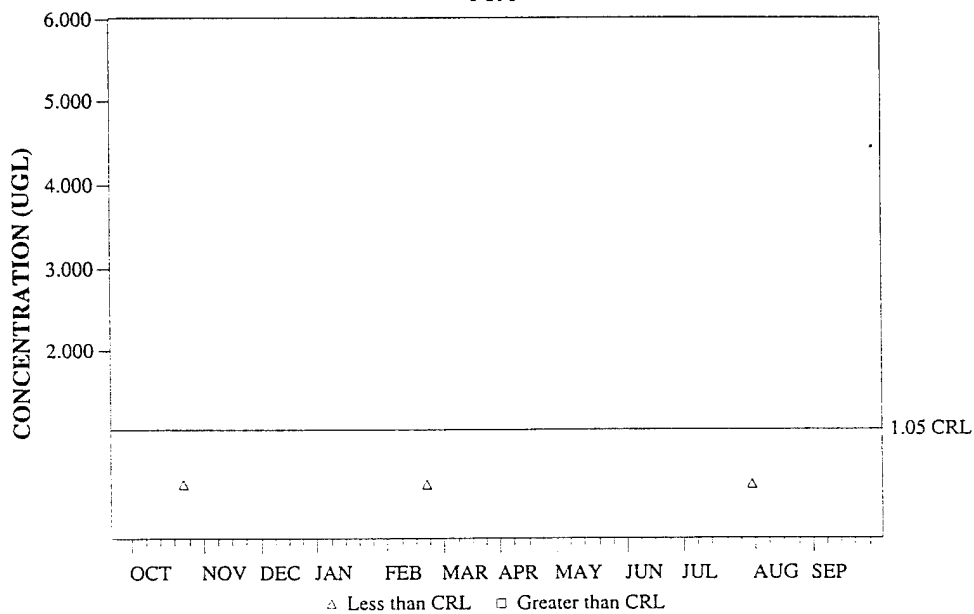


Figure 4. (Concluded)

SOUTH PLANTS PSIFIN - C6H6  
BENZENE  
FY91



SOUTH PLANTS PSAAEF - C6H6  
BENZENE  
FY91

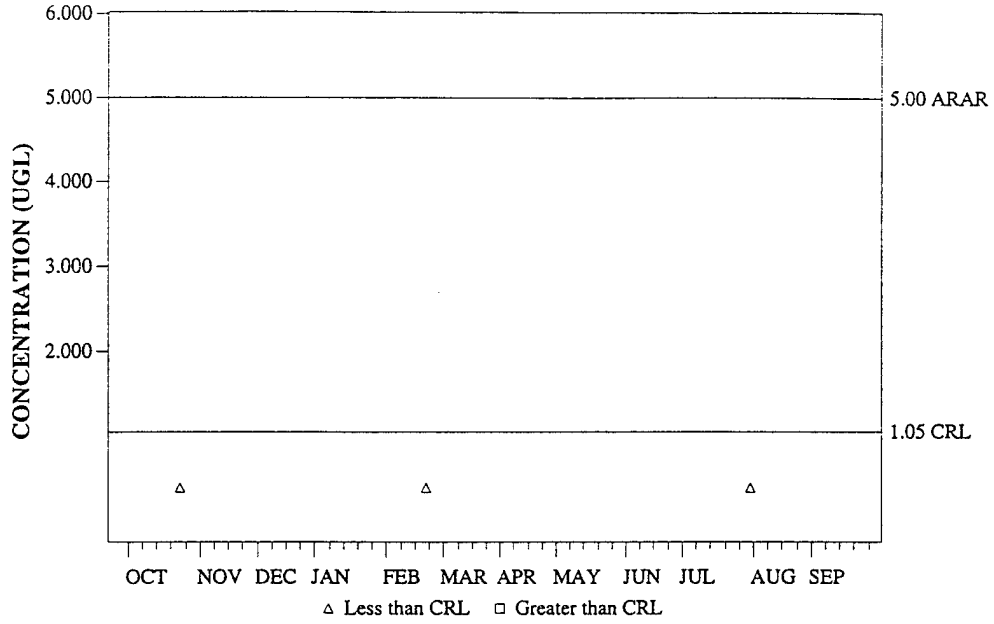


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Figure 5. (Continued)

SOUTH PLANTS PSASEF - C6H6  
BENZENE  
FY91



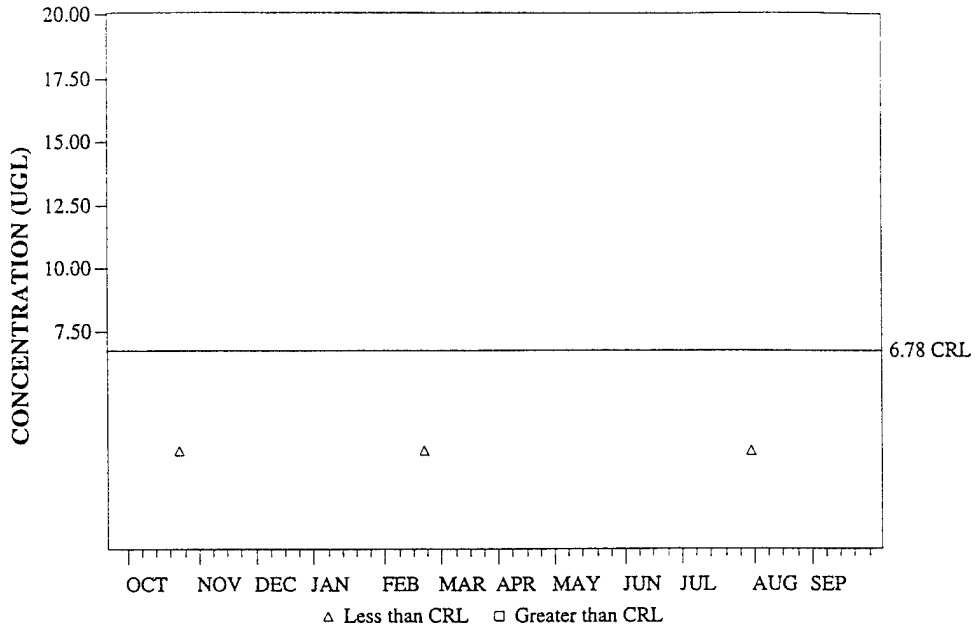
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Figure 5. (Concluded)

### SOUTH PLANTS PSIFIN - CD

CADMIUM  
FY91



### SOUTH PLANTS PSAAEF - CD

CADMIUM  
FY91

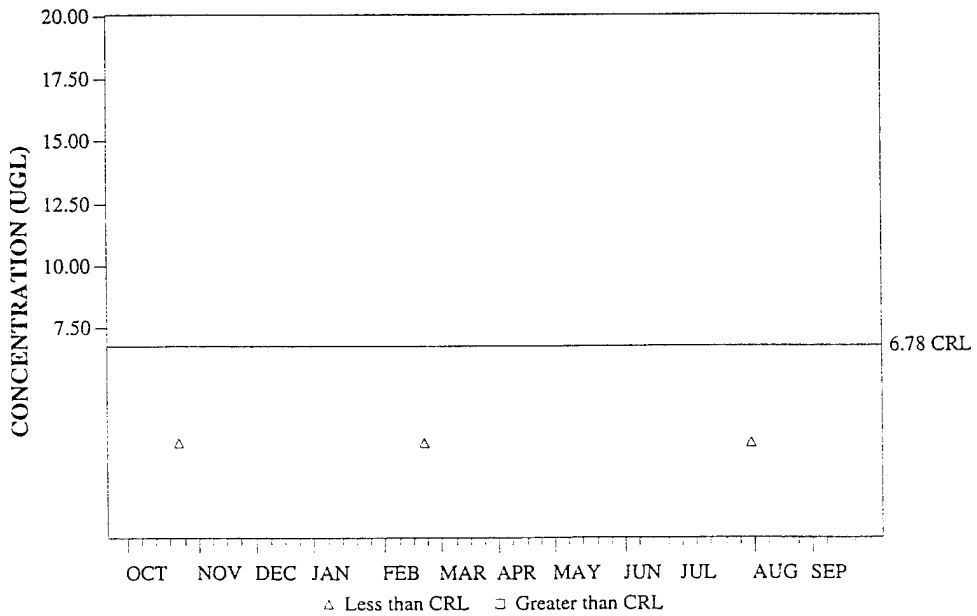
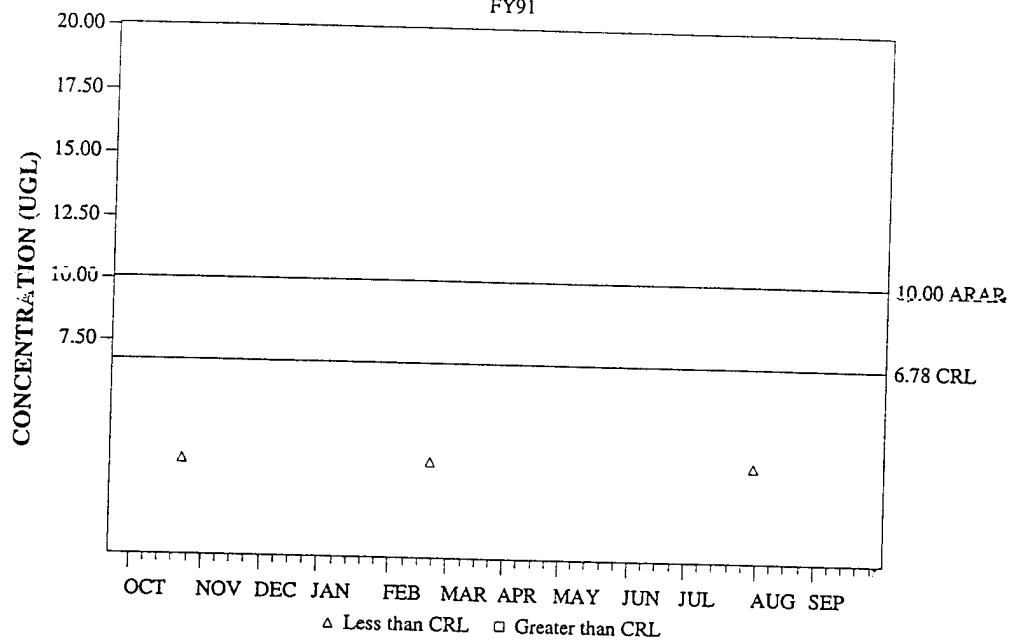


Figure 6. (Continued)



# SOUTH PLANTS PSASEF - CD

CADMIUM  
FY91



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Figure 6. (Concluded)

23. Carbon Tetrachloride. The ARAR standard for carbon tetrachloride at the CPS is  $5.0 \mu\text{g}/\ell$ . As indicated in Figure 7, no concentrations of carbon tetrachloride above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for carbon tetrachloride in FY91. Thus, no concentrations of carbon tetrachloride above the ARAR standard were reported for any system effluent samples in FY91.

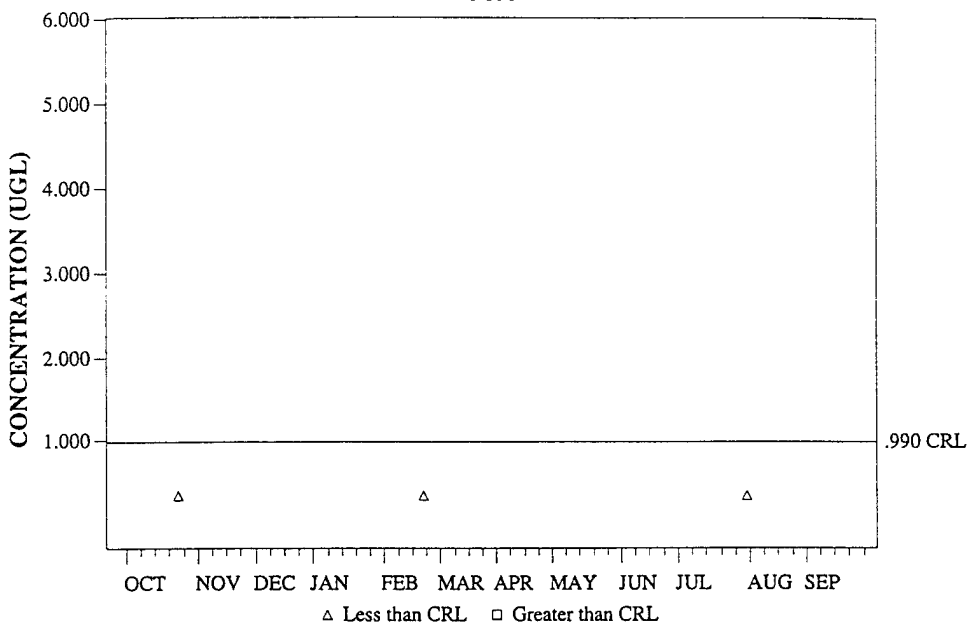
24. Chlordane. The ARAR standard for chlordane at the CPS is  $0.1 \mu\text{g}/\ell$ . As indicated in Figure 8, no concentrations of chlordane above the CRL were reported for any of the two system influent, carbon/alumina effluent, or system effluent samples analyzed for chlordane in FY91. Thus, no concentrations of chlordane above the ARAR standard were reported for any system effluent samples in FY91.

25. Chloride. The ARAR standard for chloride at the CPS is  $250 \text{ mg}/\ell$ . The concentrations of chloride reported for the three influent samples collected in FY91 ranged from  $57 \text{ mg}/\ell$  to  $180 \text{ mg}/\ell$  with a mean value of  $126 \text{ mg}/\ell$  as indicated in Figure 9. The concentrations reported for the three carbon/alumina effluent samples ranged from  $57 \text{ mg}/\ell$  to  $180 \text{ mg}/\ell$  with a mean value of  $126 \text{ mg}/\ell$ . None of the three system effluent samples collected in FY91 were reported with concentrations in excess of the ARAR standard. The concentrations reported ranged from  $68 \text{ mg}/\ell$  to  $240 \text{ mg}/\ell$  with a mean value of  $149 \text{ mg}/\ell$ . It should be noted that the CPS has no specific process for the removal of chloride.

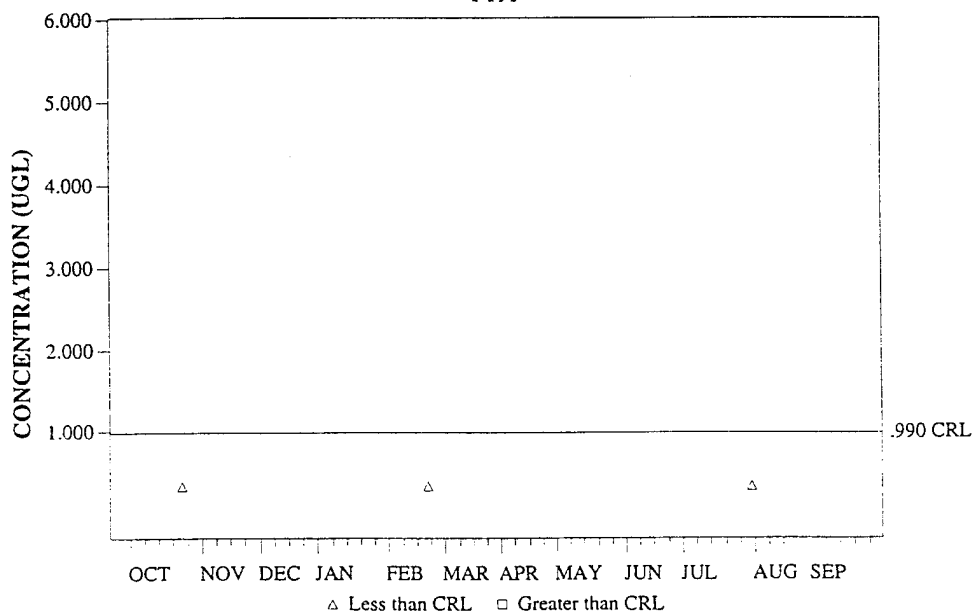
26. Chlorobenzene. The ARAR standard for chlorobenzene at the CPS is  $300 - \mu\text{g}/\ell$ . As indicated in Figure 10, no concentrations of chlorobenzene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for chlorobenzene in FY91. Thus, no concentrations of chlorobenzene above the ARAR standard were reported for any system effluent samples in FY91.

27. Chloroform. The ARAR standard for chloroform at the CPS is  $100 \mu\text{g}/\ell$ . As indicated in Figure 11, the concentrations of chloroform reported for the three influent samples collected in FY91 ranged from  $9.3 \mu\text{g}/\ell$  to  $24.9 \mu\text{g}/\ell$  with a mean value of  $16.2 \mu\text{g}/\ell$ . Two of the fourteen carbon/alumina effluent samples were reported with concentrations in excess of the CRL ranging from  $6.4 \mu\text{g}/\ell$  to  $34.5 \mu\text{g}/\ell$ . None of the sixteen system effluent samples were reported with chloroform concentrations in excess of the ARAR standard. One of the system effluent concentrations was reported as being greater than the CRL.

SOUTH PLANTS PSIFIN - CCL4  
CARBON TETRACHLORIDE  
FY91



SOUTH PLANTS PSAAEF - CCL4  
CARBON TETRACHLORIDE  
FY91

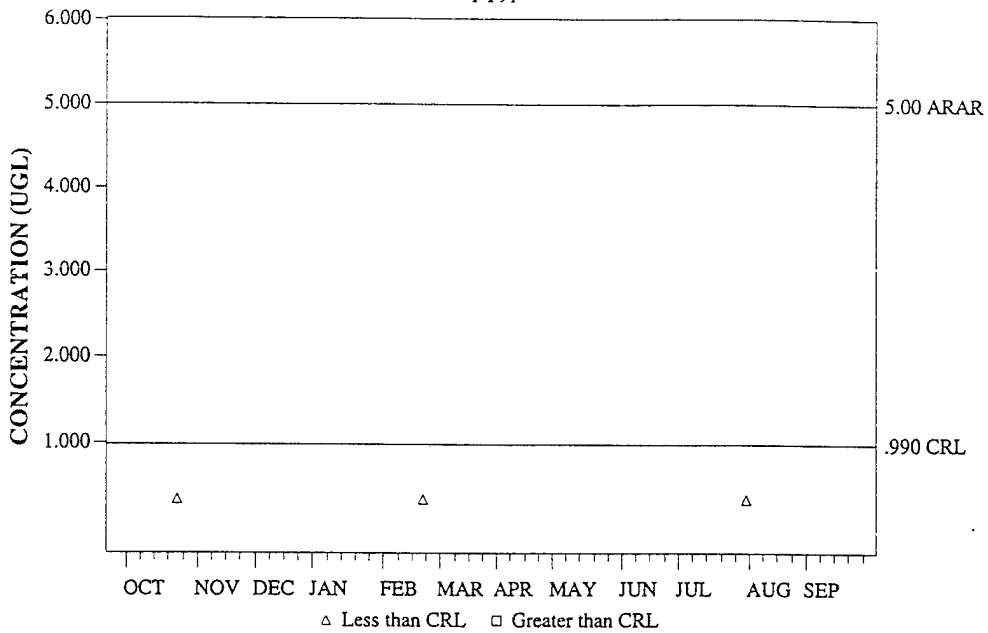


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Figure 7. (Continued)

SOUTH PLANTS PSASEF - CCL4  
CARBON TETRACHLORIDE  
FY91

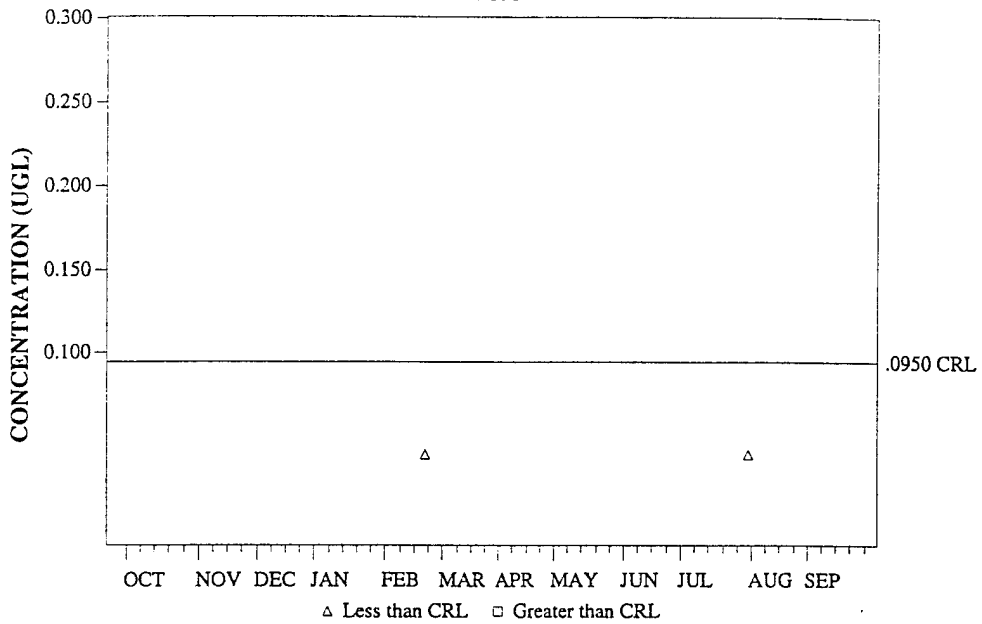


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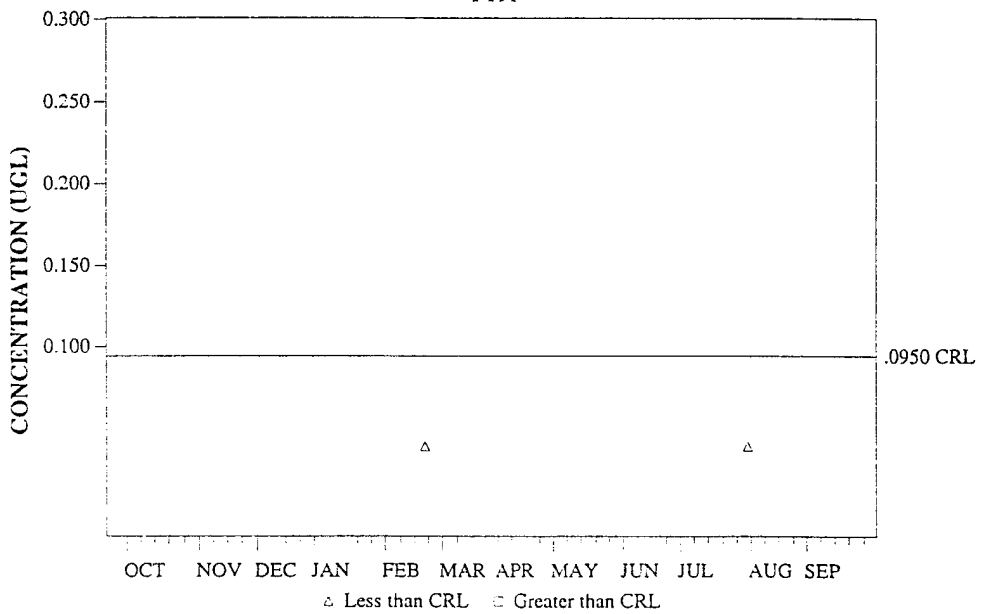
12/10/93

Figure 7. (Concluded)

SOUTH PLANTS PSIFIN - CLDAN  
CHLORDANE  
FY91



SOUTH PLANTS PSAAEF - CLDAN  
CHLORDANE  
FY91

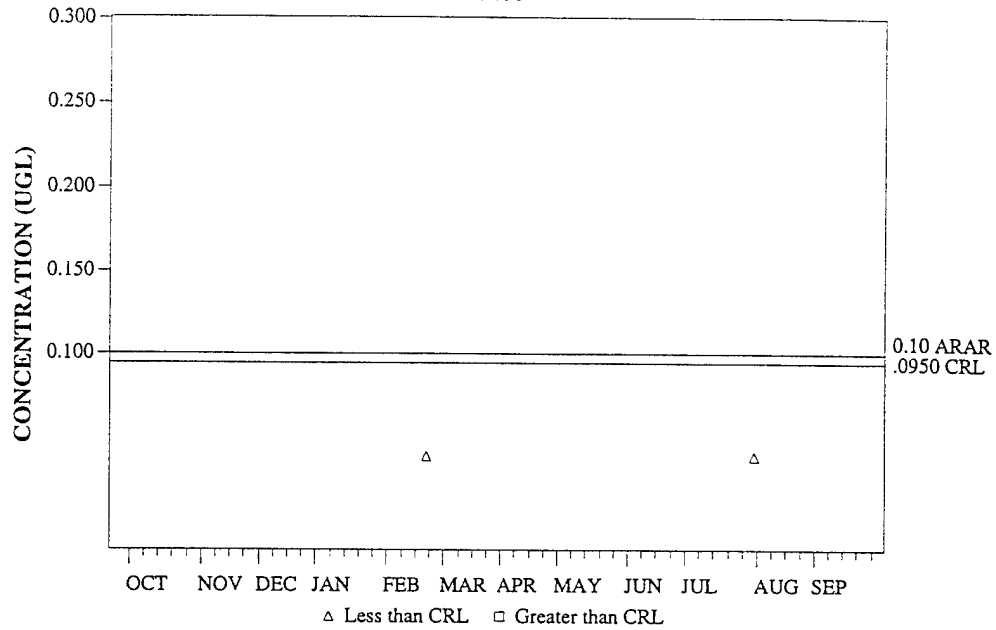


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Figure 8. (Continued)

SOUTH PLANTS PSASEF - CLDAN  
CHLORDANE  
FY91

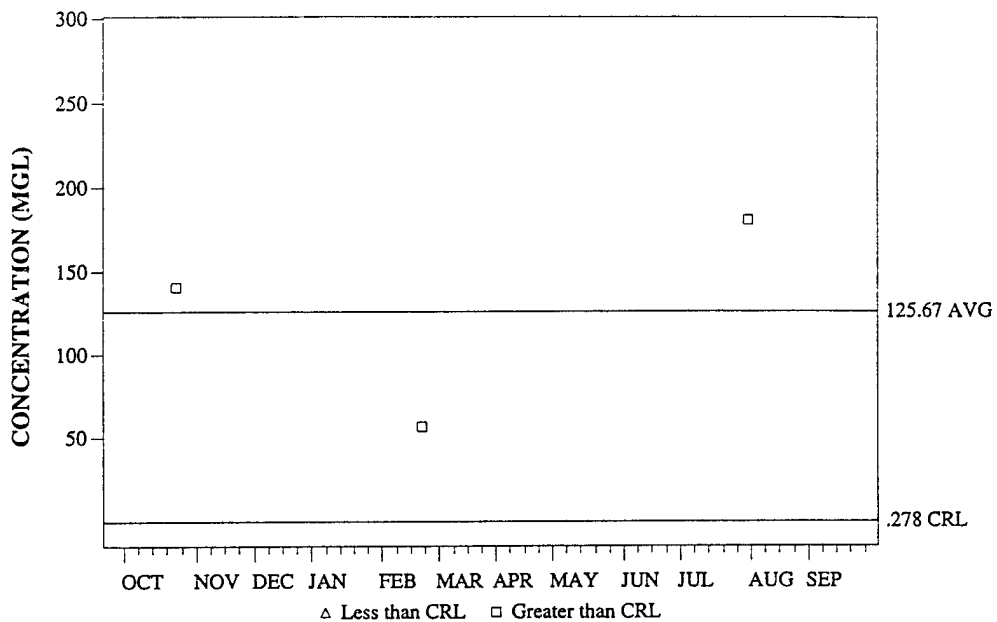


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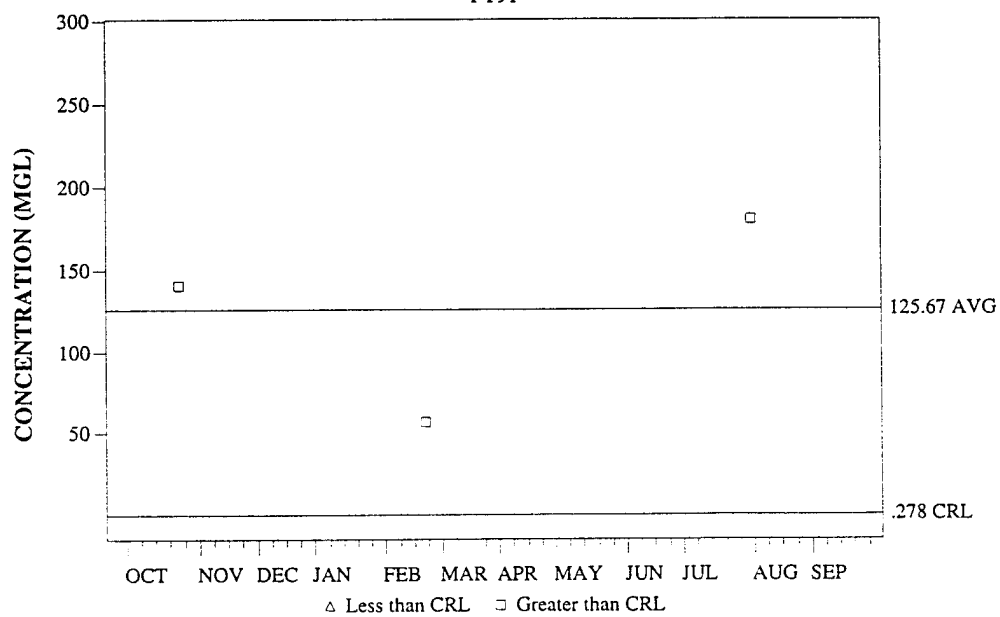
12/10/93

Figure 8. (Concluded)

SOUTH PLANTS PSIFIN - CL  
 CHLORIDE  
 FY91



SOUTH PLANTS PSAAEF - CL  
 CHLORIDE  
 FY91



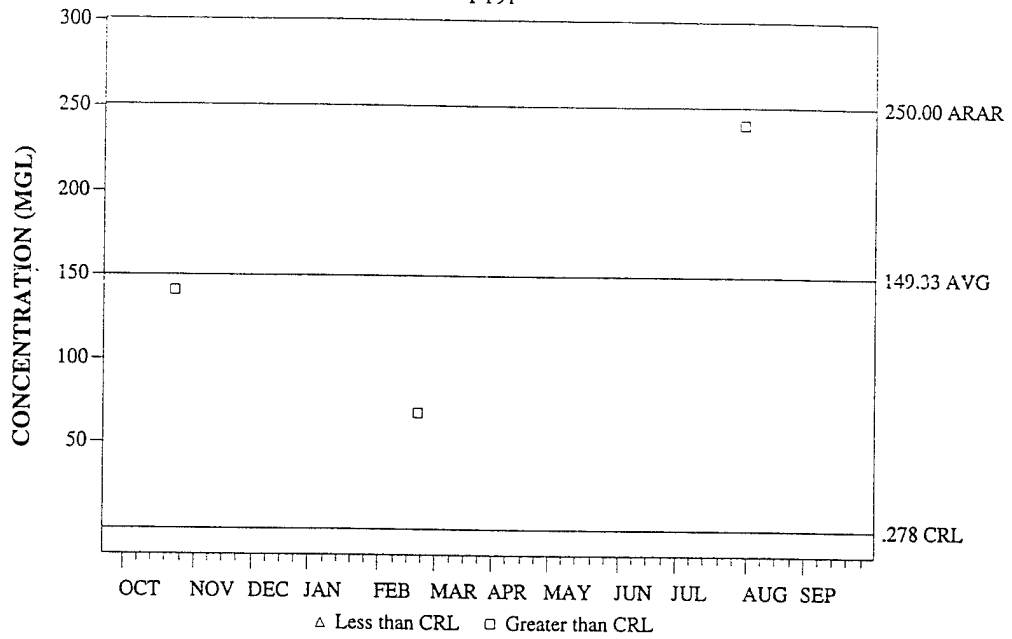
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12/10/93

Figure 9. (Continued)

# SOUTH PLANTS PSASEF - CL

CHLORIDE  
FY91



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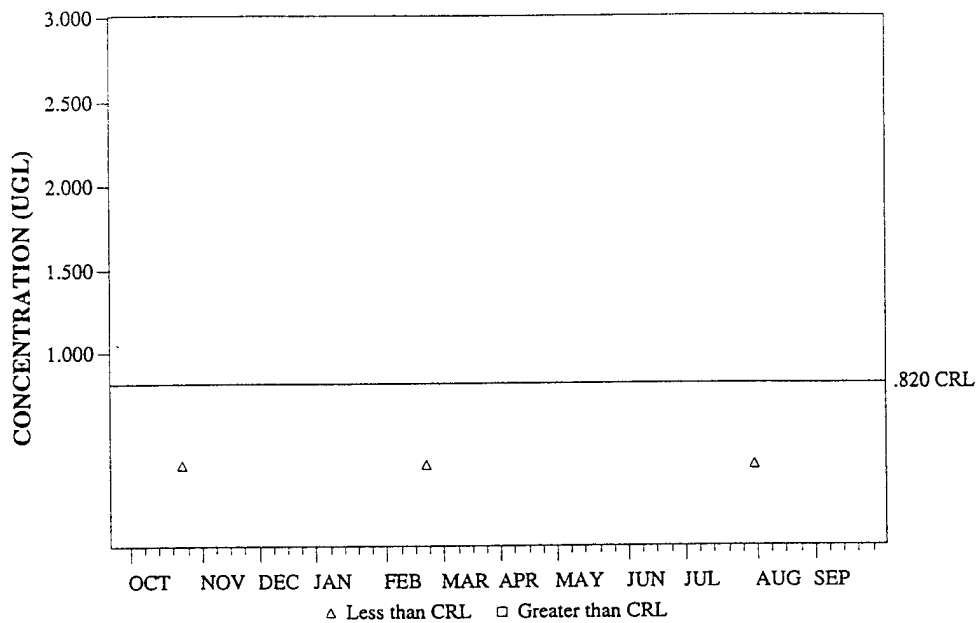
12/10/93

Figure 9. (Concluded)



### SOUTH PLANTS PSIFIN - CLC6H5

CHLOROBENZENE  
FY91



### SOUTH PLANTS PSAAEF - CLC6H5

CHLOROBENZENE  
FY91

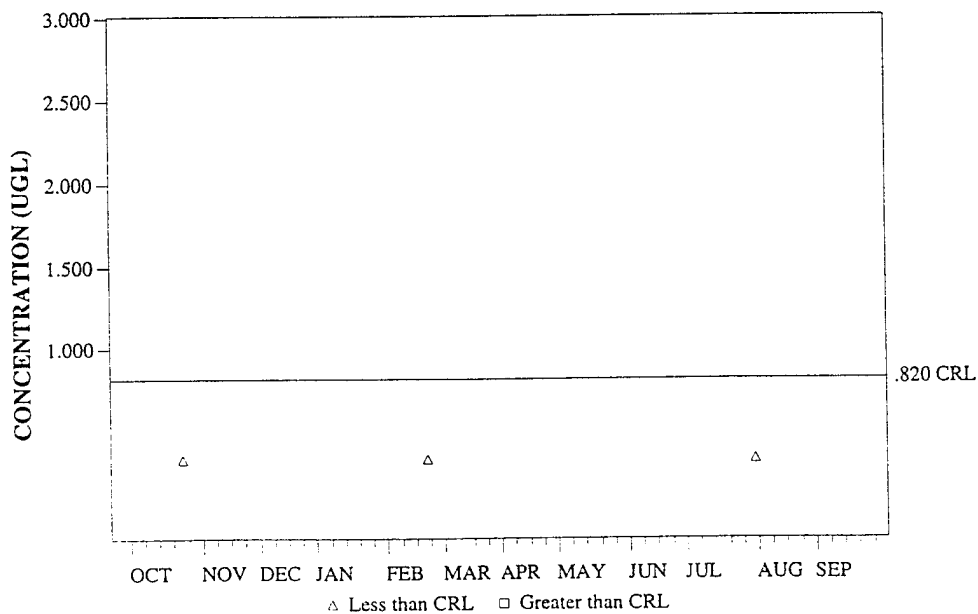
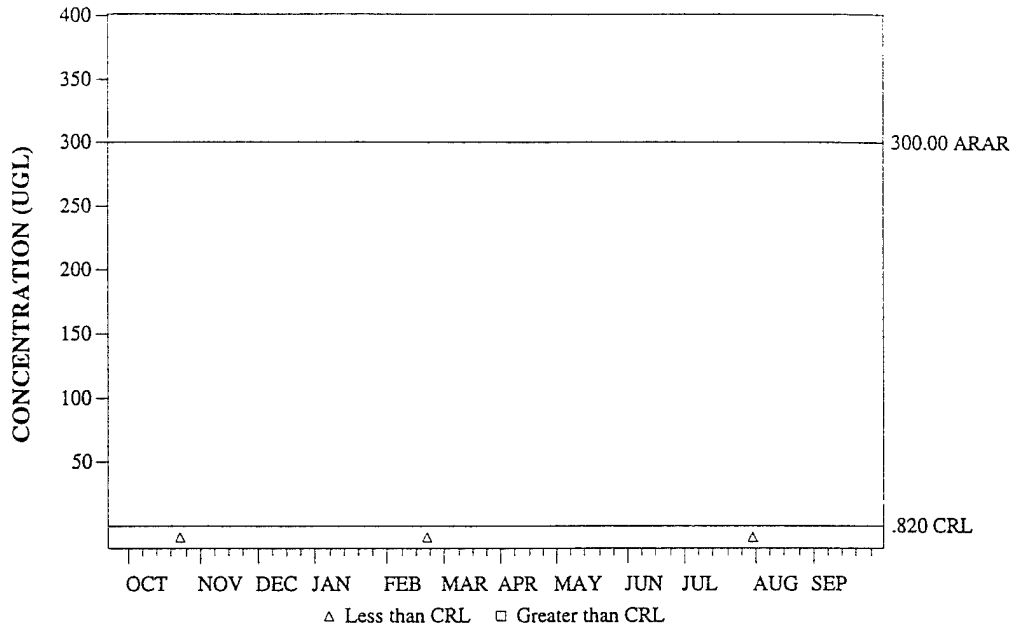


Figure 10. (Continued)

SOUTH PLANTS PSASEF - CLC6H5  
CHLOROBENZENE  
FY91

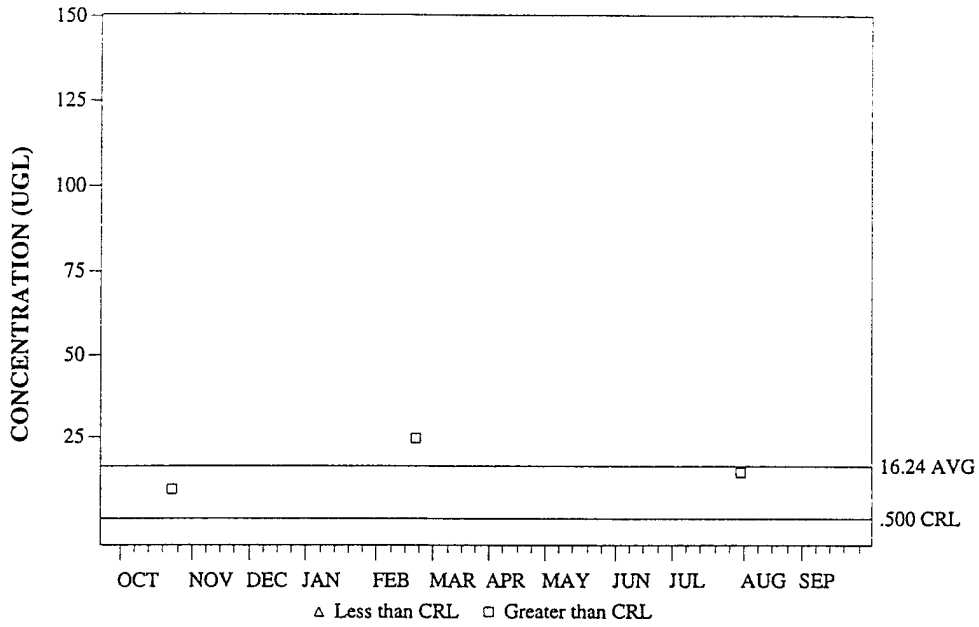


D.P. ASSOCIATES, INC

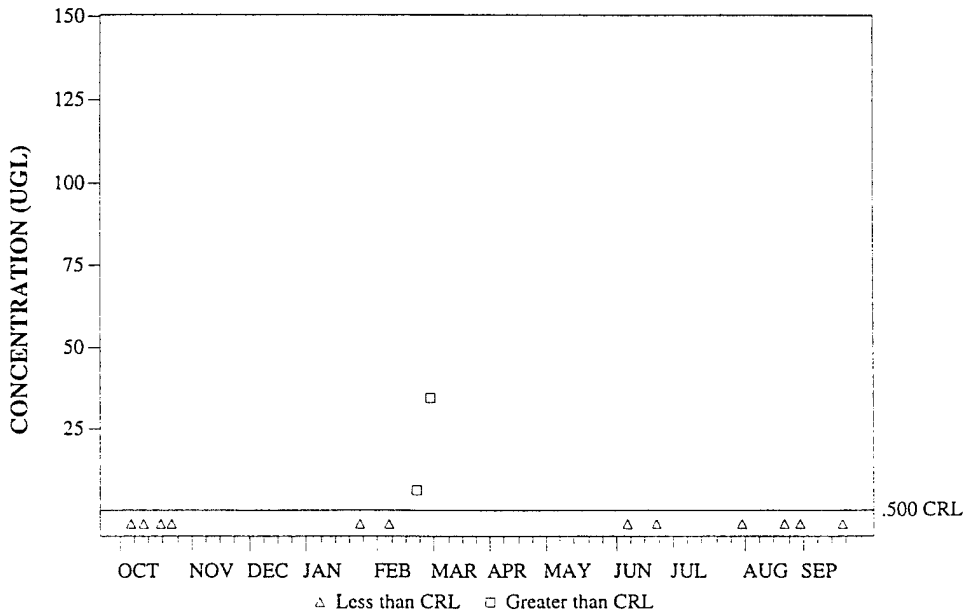
12/10/93

Figure 10. (Concluded)

SOUTH PLANTS PSIFIN - CHCL3  
 CHLOROFORM  
 FY91



SOUTH PLANTS PSAAEF - CHCL3  
 CHLOROFORM  
 FY91

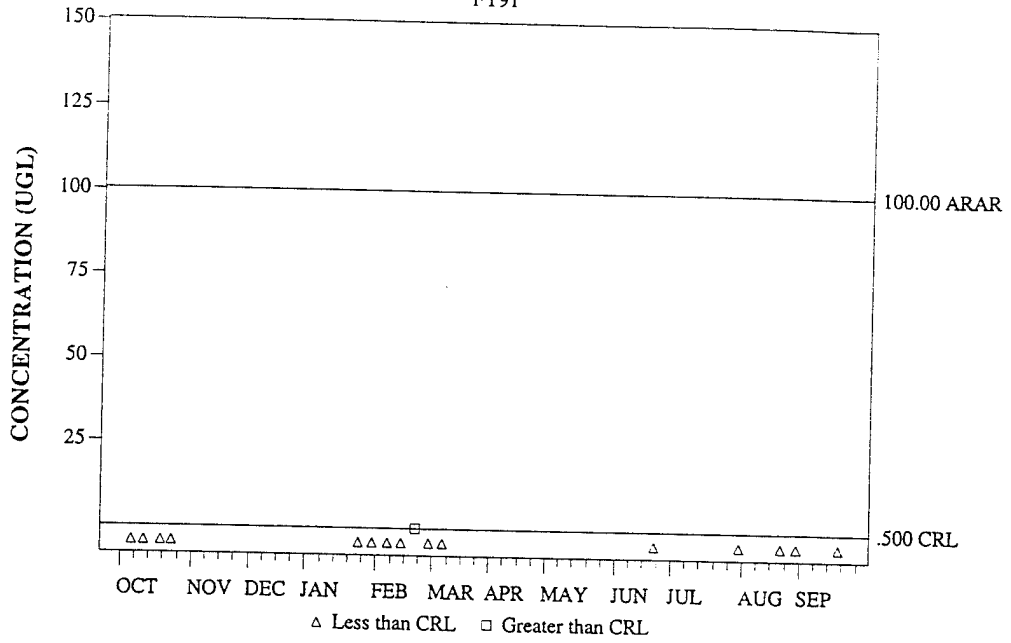


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Figure 11. (Continued)

SOUTH PLANTS PSASEF - CHCL3  
CHLOROFORM  
FY91



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Figure 11. (Concluded)

28. Chromium. The ARAR standard for chromium at the CPS is  $50.0 \mu\text{g}/\ell$ . As indicated in Figure 12, no concentrations of chromium above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for chromium in FY91. Thus, no concentrations of chromium above the ARAR standard were reported for any system effluent samples in FY91. It should be noted that the CPS has no specific process for the removal of chromium.

29. Copper. The ARAR standard for copper at the CPS is  $200 \mu\text{g}/\ell$ . The concentrations of copper above the CRL reported for two out of the three influent samples collected in FY91 were  $37.4 \mu\text{g}/\ell$  and  $51.8 \mu\text{g}/\ell$  with a mean value of  $36 \mu\text{g}/\ell$  as indicated in Figure 13. No concentrations of copper above the CRL were reported for any of the three carbon/alumina effluent samples analyzed for copper in FY91. None of the three system effluent samples collected in FY91 were reported with concentrations in excess of the ARAR standard. Two of the three samples were reported with concentrations in excess of the CRL at  $102 \mu\text{g}/\ell$  and  $197 \mu\text{g}/\ell$ . The mean value for FY91 for the system effluent samples was  $106 \mu\text{g}/\ell$ . It should be noted that the CPS has no specific process for the removal of copper.

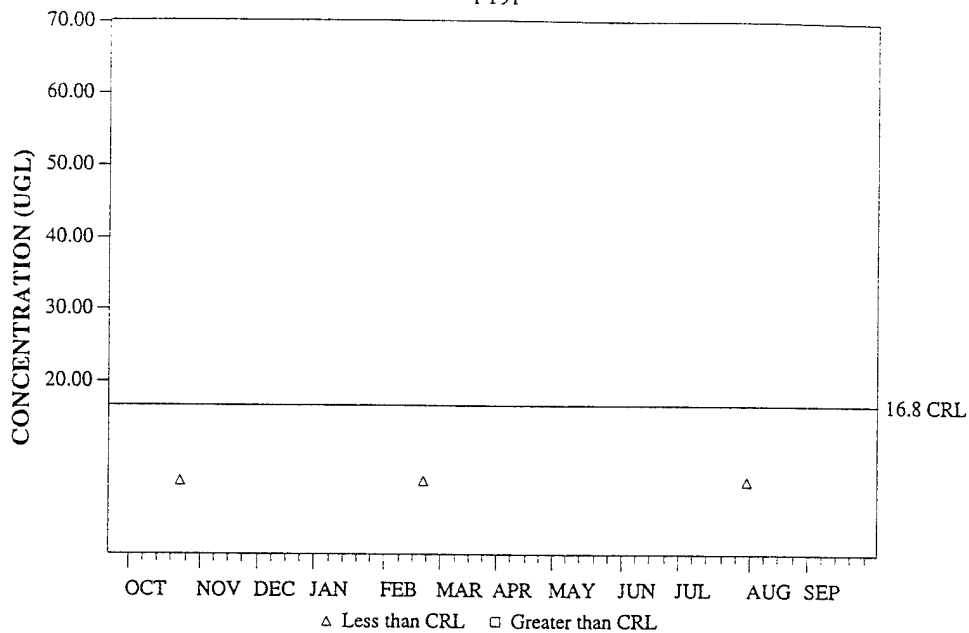
30. p,p'-DDE. The ARAR standard for p,p'-DDE at the CPS is  $0.1 \mu\text{g}/\ell$ . As indicated in Figure 14, only one of the two system influent samples analyzed for p,p'-DDE in FY91 was reported with a concentration in excess of the CRL at  $0.37 \mu\text{g}/\ell$ . No concentrations of p,p'-DDE above the CRL were reported for any of the three carbon/alumina effluent or system effluent samples analyzed for p,p'-DDE in FY91. Thus, no concentrations of p,p'-DDE above the ARAR standard were reported for any system effluent samples in FY91.

31. p,p'-DDT. The ARAR standard for p,p'-DDT at the CPS is  $0.1 \mu\text{g}/\ell$ . As indicated in Figure 15, only one system influent sample was analyzed for p,p'-DDT in FY91. The concentration was reported to be below the CRL. No concentrations of p,p'-DDT above the CRL were reported for any of the two carbon/alumina effluent or system effluent samples analyzed for p,p'-DDT in FY91. Thus, no concentrations of p,p'-DDT above the ARAR standard were reported for any system effluent samples in FY91.

32. 1,4-Dichlorobenzene. The ARAR standard for 1,4-dichlorobenzene at the CPS is  $75 \mu\text{g}/\ell$ . As indicated in Figure 16, only one of the three system influent samples analyzed for 1,4-dichlorobenzene in FY91 was reported with a concentration in excess of the CRL at  $1.25 \mu\text{g}/\ell$ . No concentrations of 1,4-dichlorobenzene above the CRL were reported for any of the three carbon/alumina effluent samples. No concentrations of 1,4-dichlorobenzene above the ARAR standard were reported for any

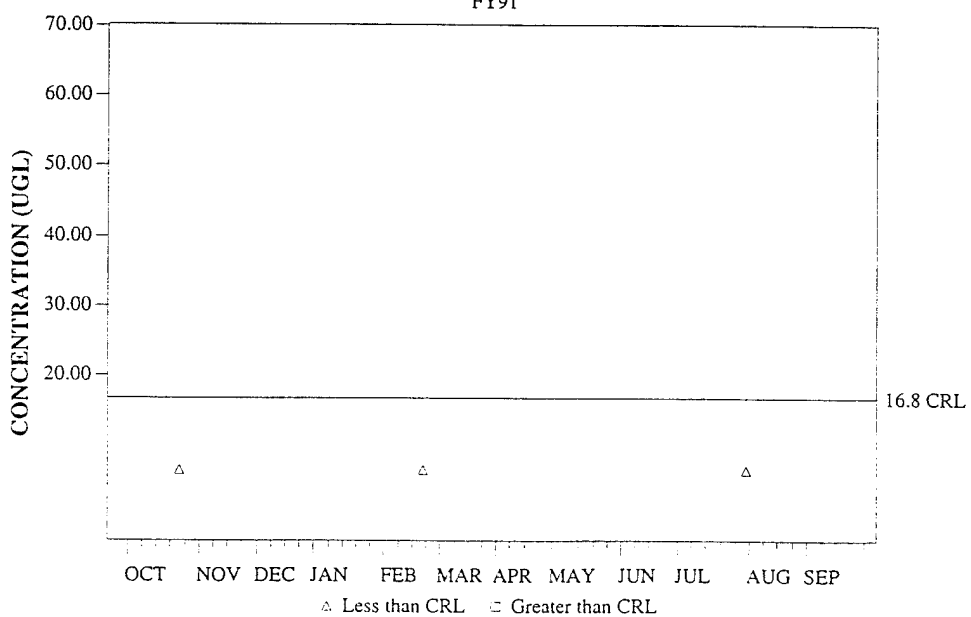
### SOUTH PLANTS PSIFIN - CR

CHROMIUM  
FY91



### SOUTH PLANTS PSAAEF - CR

CHROMIUM  
FY91



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Figure 12. (Continued)

SOUTH PLANTS PSASEF - CR  
CHROMIUM  
FY91

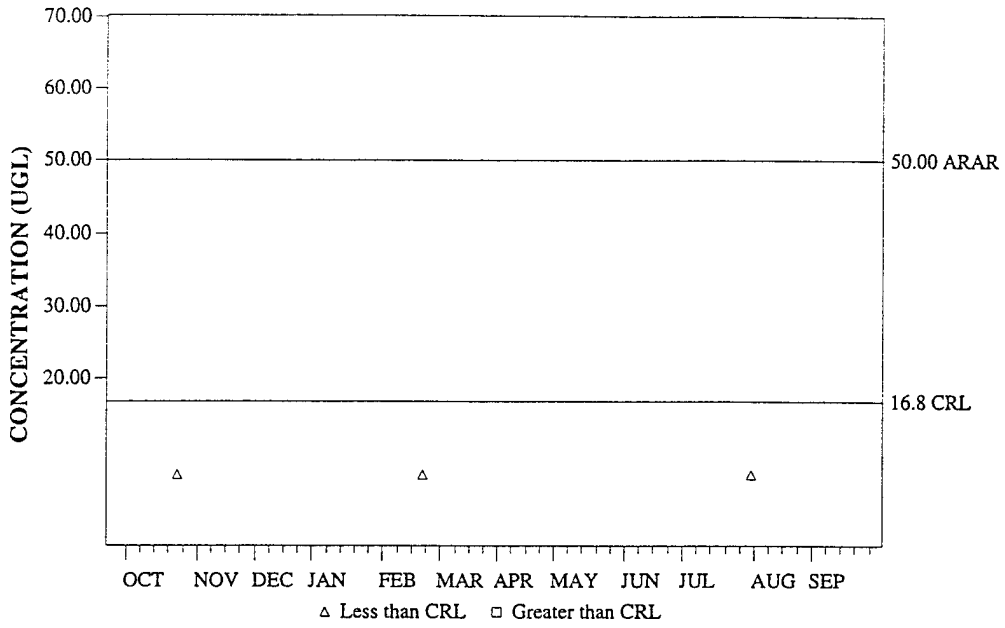
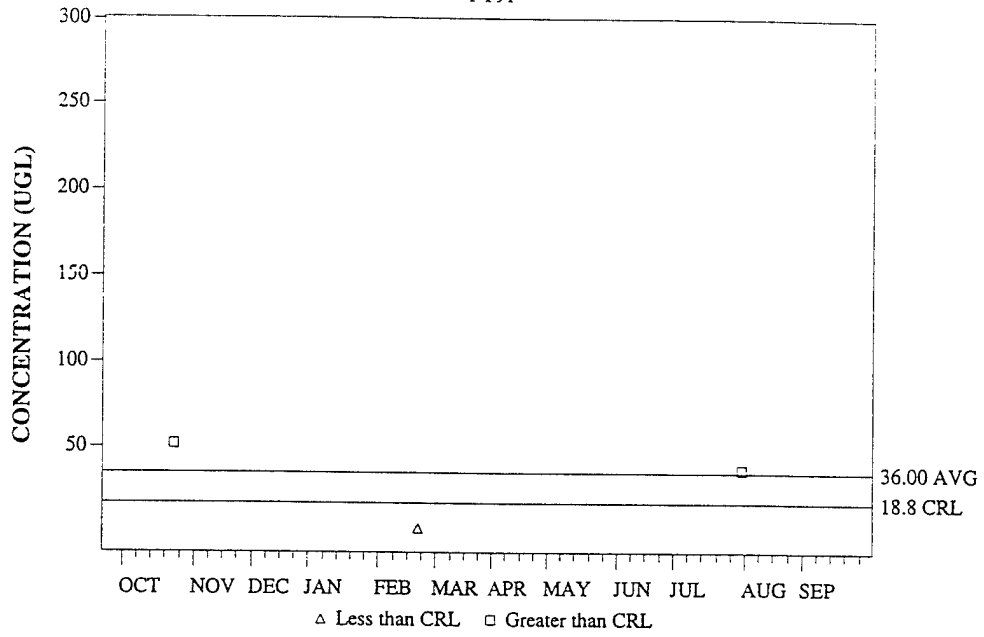


Figure 12. (Concluded)

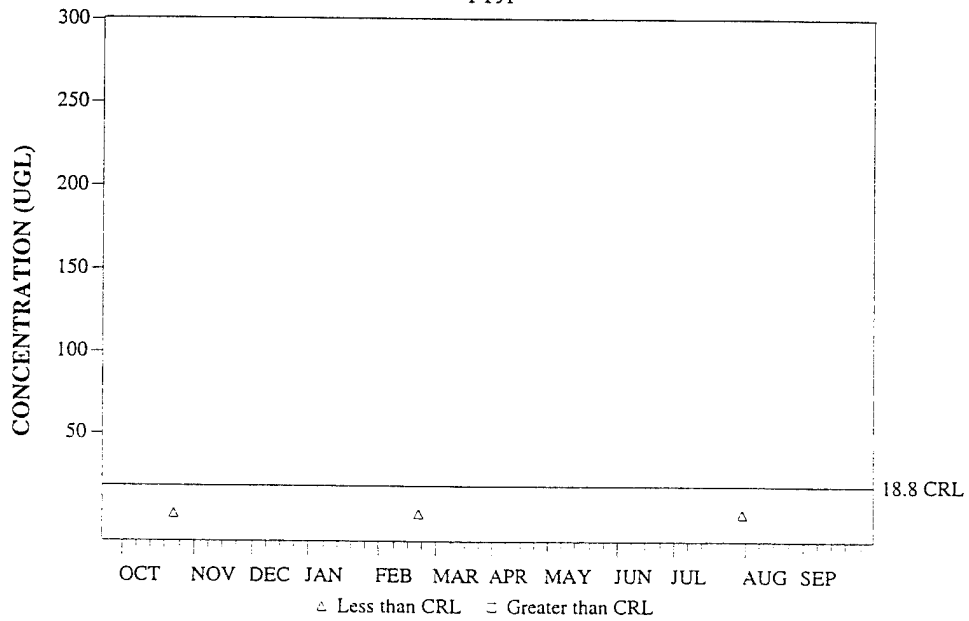
### SOUTH PLANTS PSIFIN - CU

COPPER  
FY91



### SOUTH PLANTS PSAAEF - CU

COPPER  
FY91



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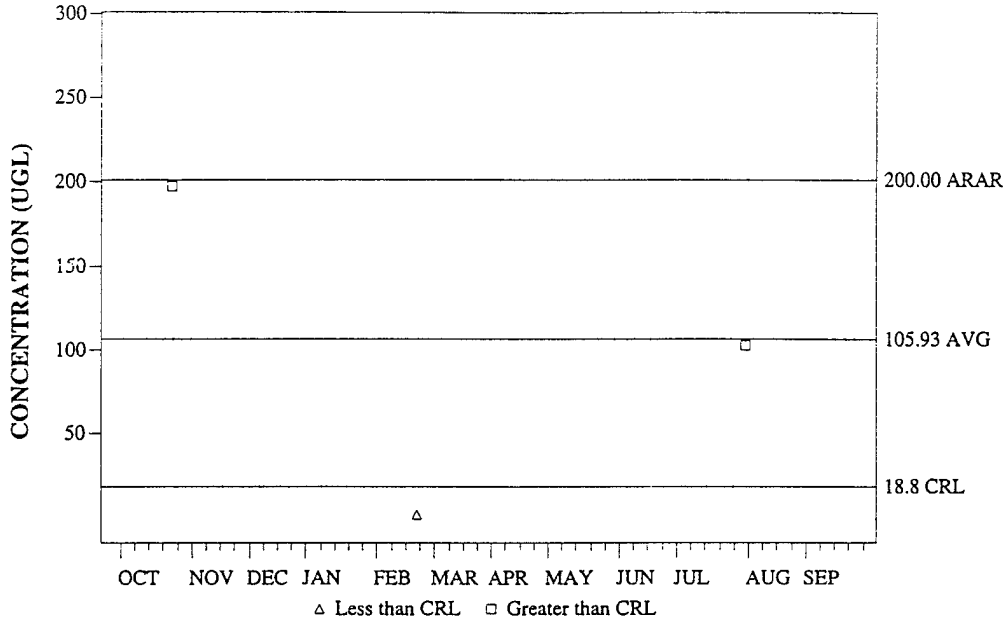
12/13/93

Figure 13. (Continued)



# SOUTH PLANTS PSASEF - CU

COPPER  
FY91



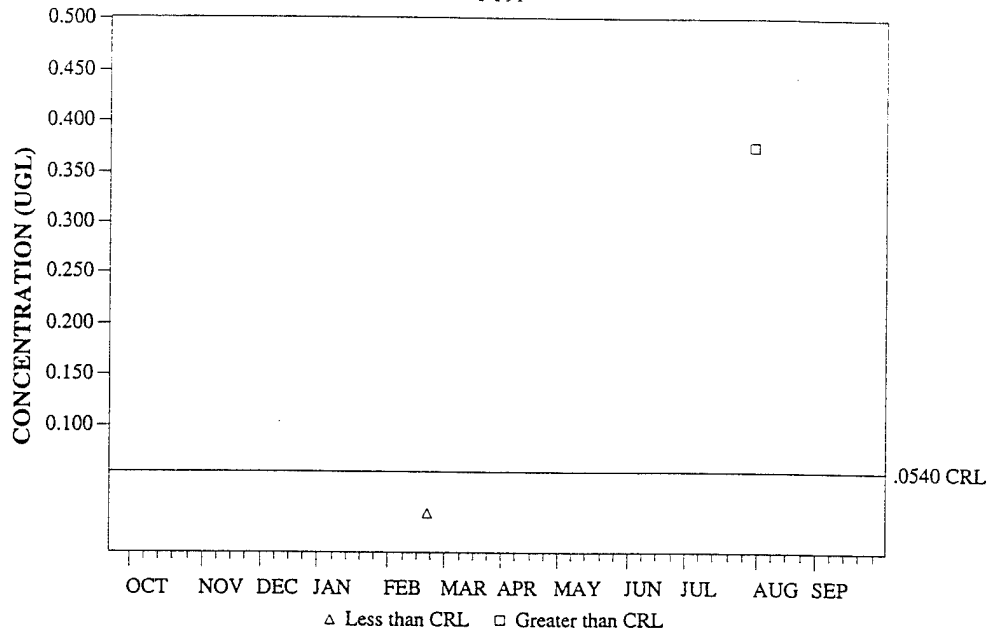
D.P. ASSOCIATES, INC

12/13/93

Figure 13. (Concluded)

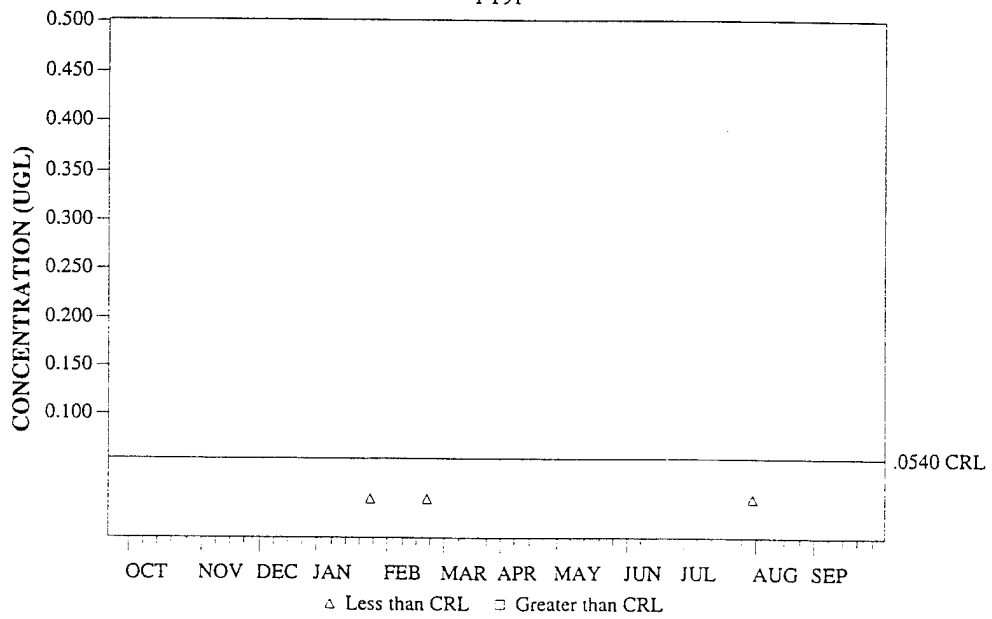
### SOUTH PLANTS PSIFIN - PPDDE

P,P'-DDE  
FY91



### SOUTH PLANTS PSAAEF - PPDDE

P,P'-DDE  
FY91



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Figure 14. (Continued)

SOUTH PLANTS PSASEF - PPDDE

P,P'-DDE  
FY91

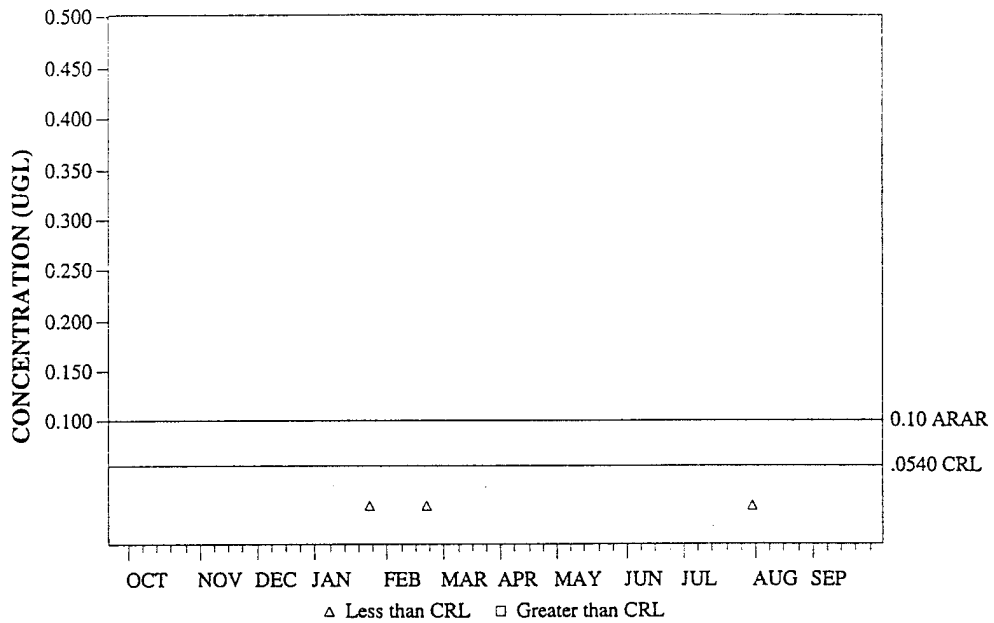
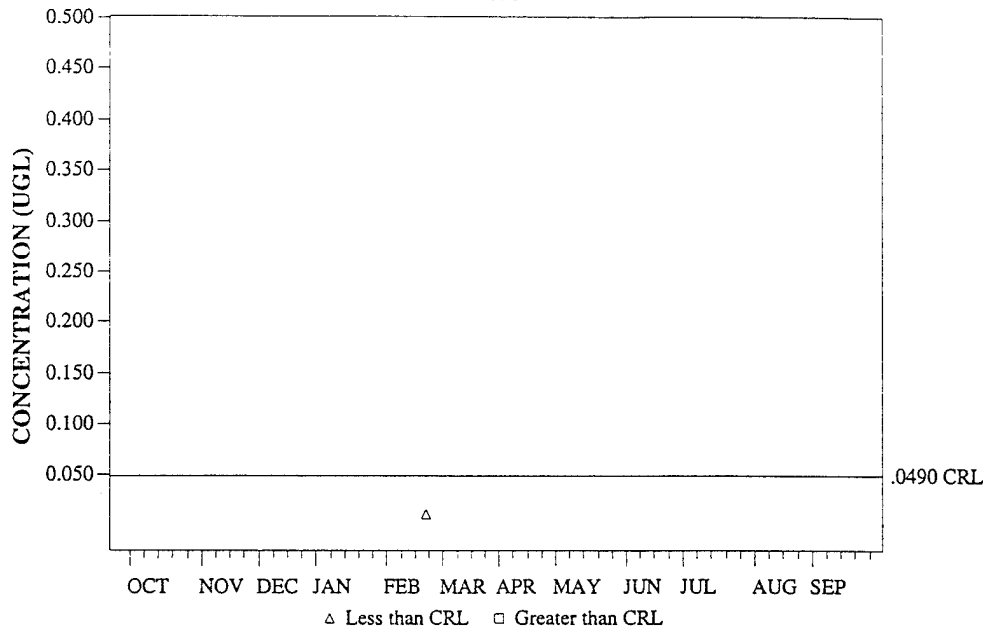


Figure 14. (Concluded)

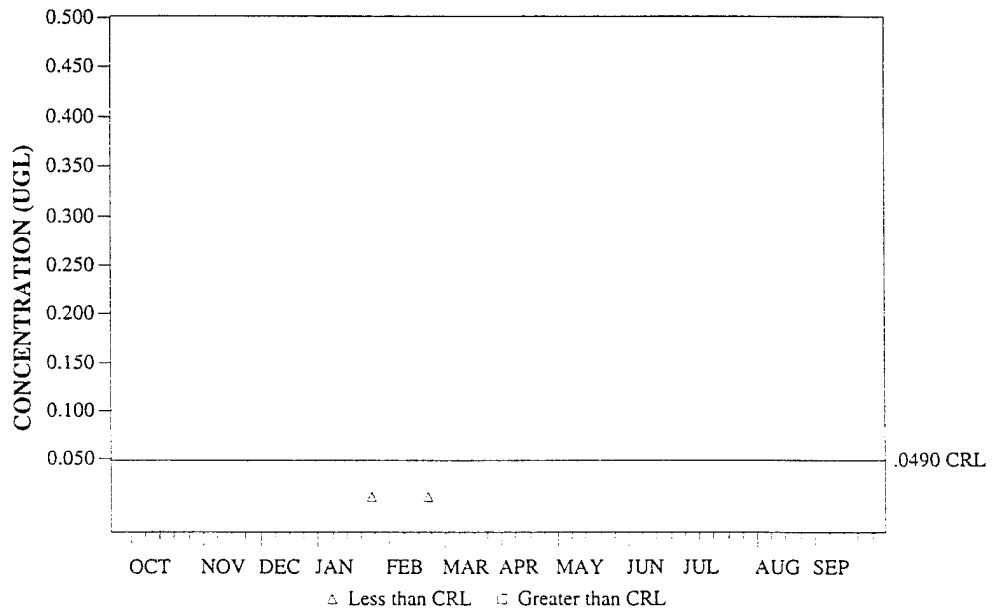
### SOUTH PLANTS PSIFIN - PPDDT

P,P'-DDT  
FY91



### SOUTH PLANTS PSAAEF - PPDDT

P,P'-DDT  
FY91



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Figure 15. (Continued)

# SOUTH PLANTS PSASEF - PPDDT

P,P'-DDT  
FY91

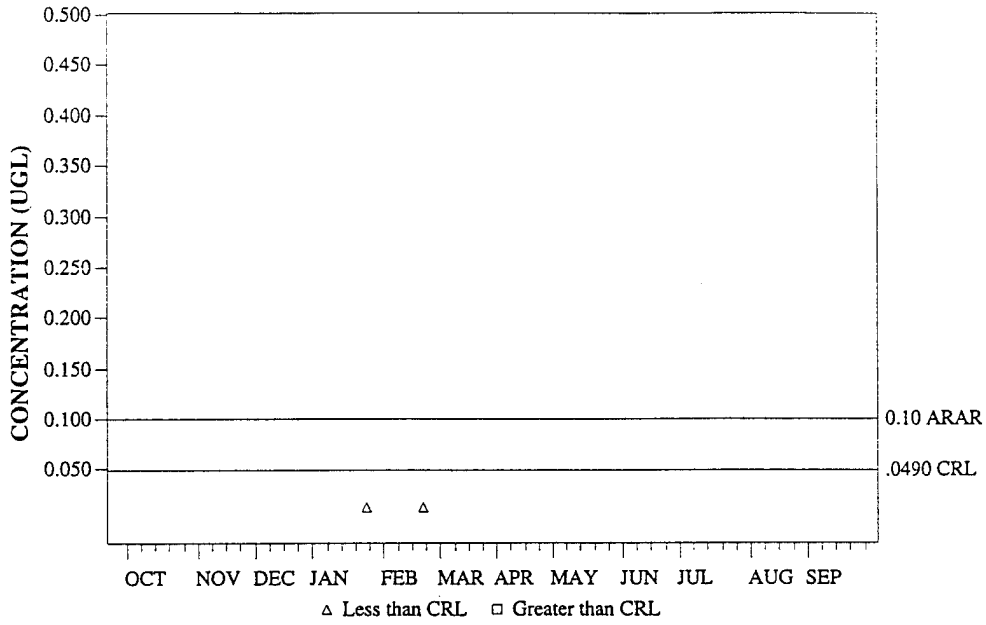
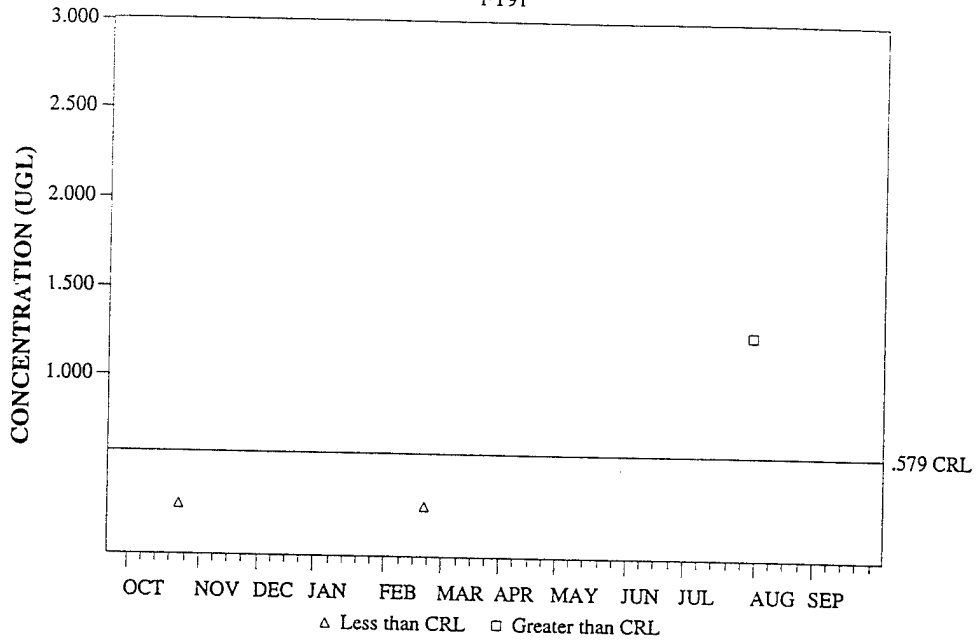
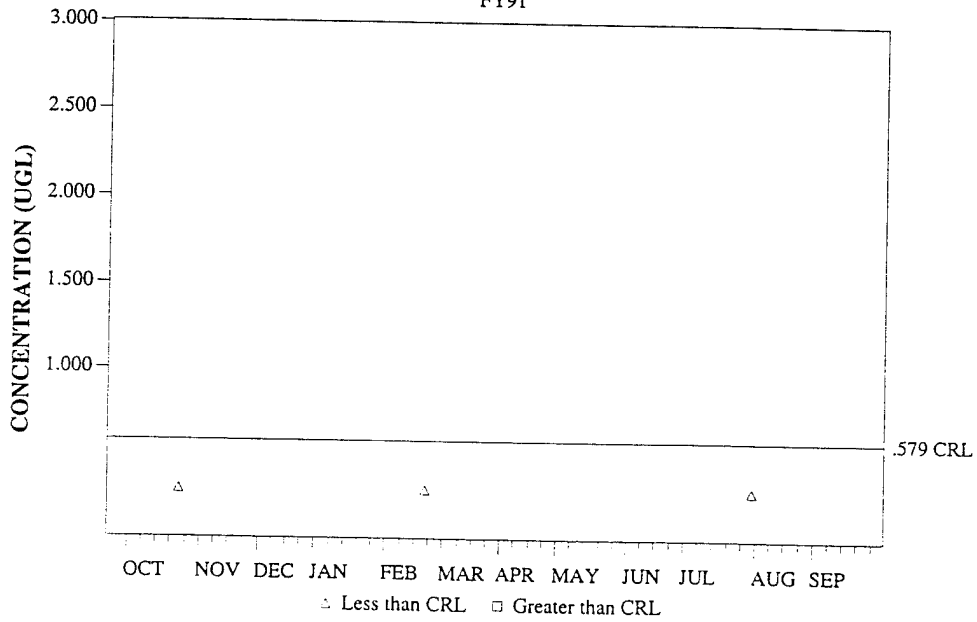


Figure 15. (Concluded)

SOUTH PLANTS PSIFIN - 14DCLB  
 1,4-DICHLOROBENZENE  
 FY91



SOUTH PLANTS PSAAEF - 14DCLB  
 1,4-DICHLOROBENZENE  
 FY91

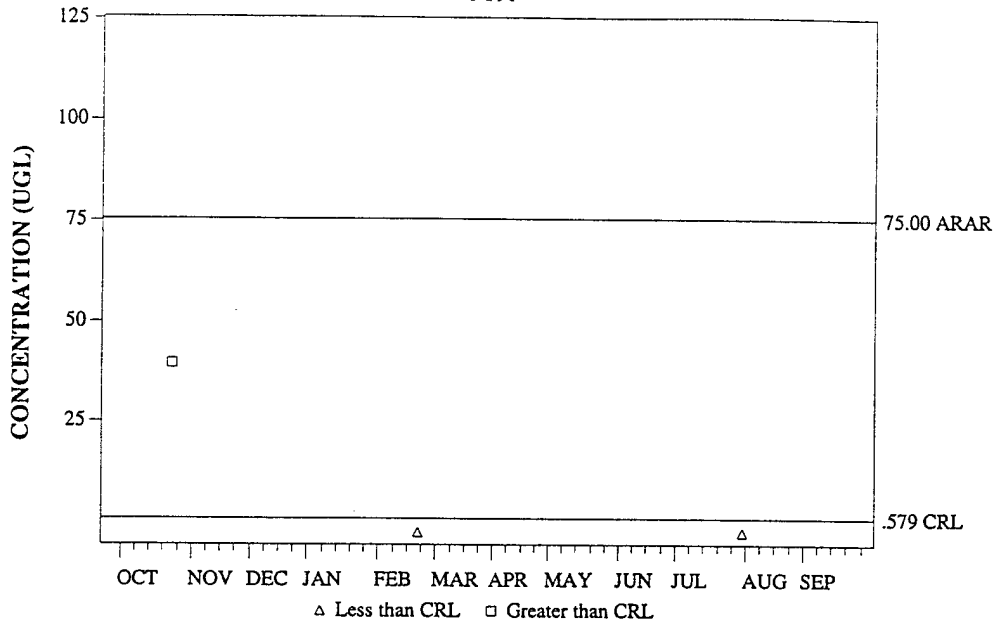


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Figure 16. (Continued)

SOUTH PLANTS PSASEF - 14DCLB  
1,4-DICHLOROBENZENE  
FY91



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12/10/93

Figure 16. (Concluded)

system effluent samples in FY91. Only one of the three samples was reported with a concentration in excess of the CRL at  $39.1 \mu\text{g}/\ell$ .

33. 1,2-Dichloroethane. The ARAR standard for 1,2-dichloroethane at the CPS is  $5 \mu\text{g}/\ell$ . As indicated in Figure 17, no concentrations of 1,2-dichloroethane above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for 1,2-dichloroethane in FY91. Thus, no concentrations of 1,2-dichloroethane above the ARAR standard were reported for any system effluent samples in FY91.

34. 1,1-Dichloroethylene. The ARAR standard for 1,1-dichloroethylene at the CPS is  $7 \mu\text{g}/\ell$ . As indicated in Figure 18, no concentrations of 1,1-dichloroethylene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for 1,1-dichloroethylene in FY91. Thus, no concentrations of 1,1-dichloroethylene above the ARAR standard were reported for any system effluent samples in FY91.

35. 1,2-Dichloroethylene. The ARAR standard for 1,2-dichloroethylene at the CPS is  $7 \mu\text{g}/\ell$ . As indicated in Figure 19, no concentrations of 1,2-dichloroethylene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for 1,2-dichloroethylene in FY91. Thus, no concentrations of 1,2-dichloroethylene above the ARAR standard were reported for any system effluent samples in FY91.

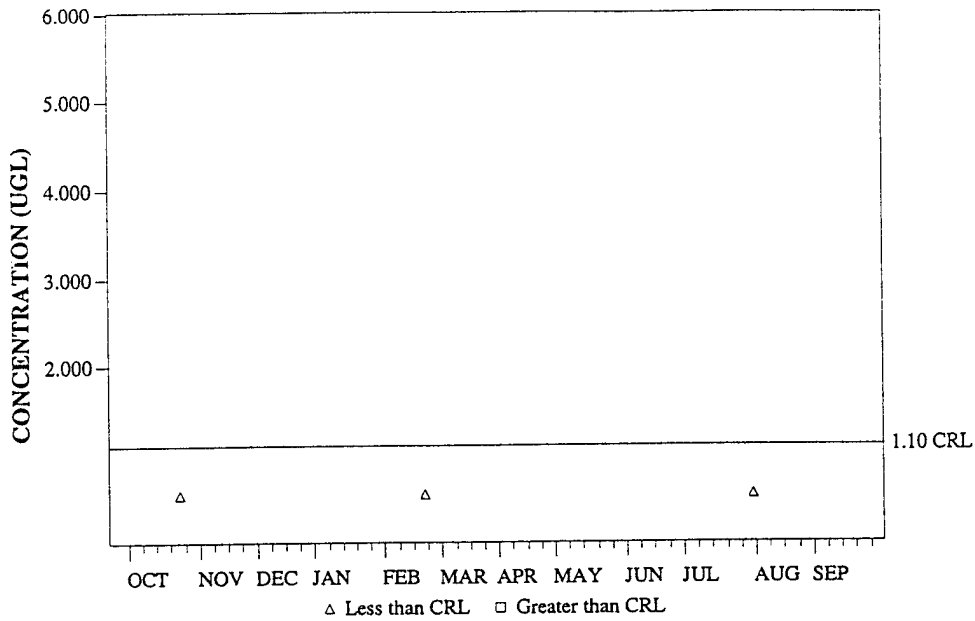
36. 1,2-Dichloropropane. The ARAR standard for 1,2-dichloropropane at the CPS is  $6 \mu\text{g}/\ell$ . 1,2-Dichloropropane was not specifically analyzed for during FY91, however it was quantified in the three GC/MS analyses conducted in FY91. As a result, no graph was prepared for 1,2-dichloropropane. The GC/MS results indicate that no concentrations above  $1.0 \mu\text{g}/\ell$  were reported in any of the samples subjected to GC/MS analysis in FY91. Thus, no concentrations of 1,2-dichloropropane above the ARAR standard were reported for any CPS effluent samples in FY91.

37. Dieldrin. The ARAR standard for dieldrin at the CPS is  $0.1 \mu\text{g}/\ell$ . The concentrations of dieldrin reported for the two influent samples collected in FY91 were  $0.29 \mu\text{g}/\ell$  and  $0.61 \mu\text{g}/\ell$  with a mean value of  $0.45 \mu\text{g}/\ell$  as indicated in Figure 20. Three of the fourteen carbon/alumina effluent samples were reported with concentrations in excess of the CRL ranging from  $0.10 \mu\text{g}/\ell$  to  $0.33 \mu\text{g}/\ell$ . Five of the sixteen system effluent samples were reported with dieldrin concentrations in excess of the ARAR standard ranging from  $0.103 \mu\text{g}/\ell$  to  $0.82 \mu\text{g}/\ell$ . Nine of the sixteen system effluent samples were reported as having concentrations below the CRL.



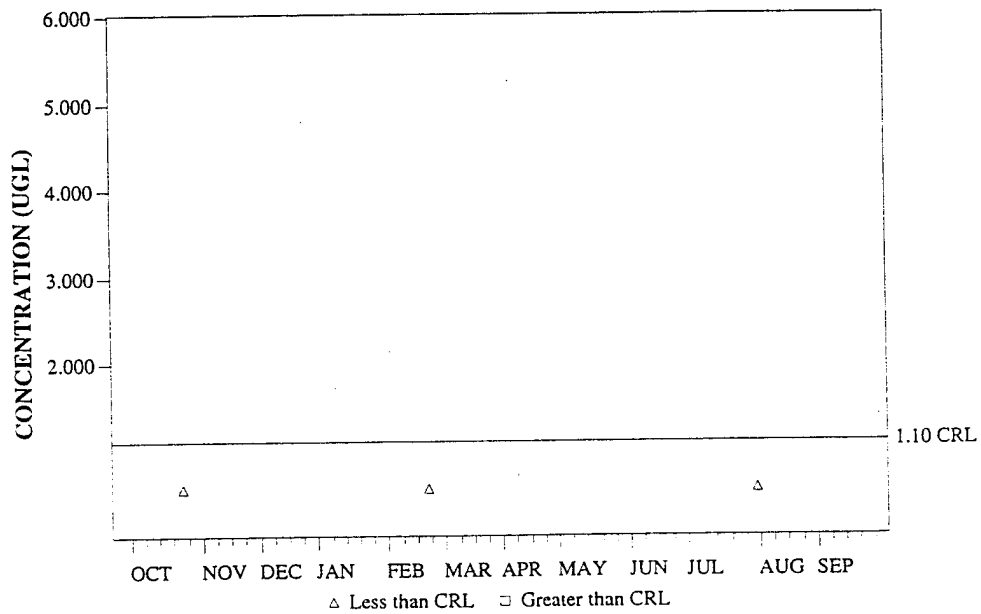
SOUTH PLANTS PSIFIN - 12DCLE

1,2-DICHLOROETHANE  
FY91



SOUTH PLANTS PSAAEF - 12DCLE

1,2-DICHLOROETHANE  
FY91

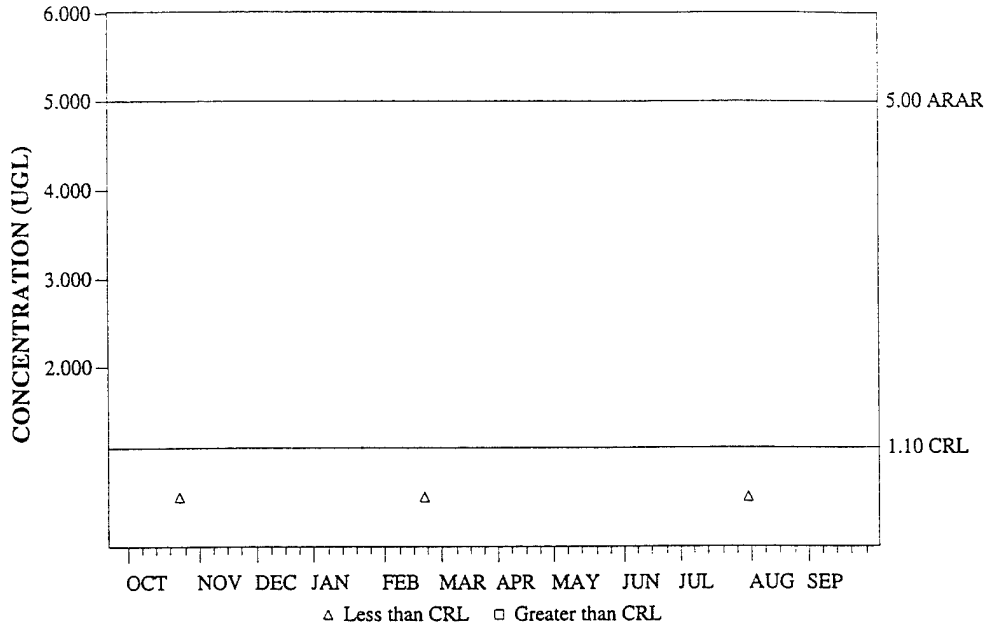


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Figure 17. (Continued)

SOUTH PLANTS PSASEF - 12DCLE  
1,2-DICHLOROETHANE  
FY91

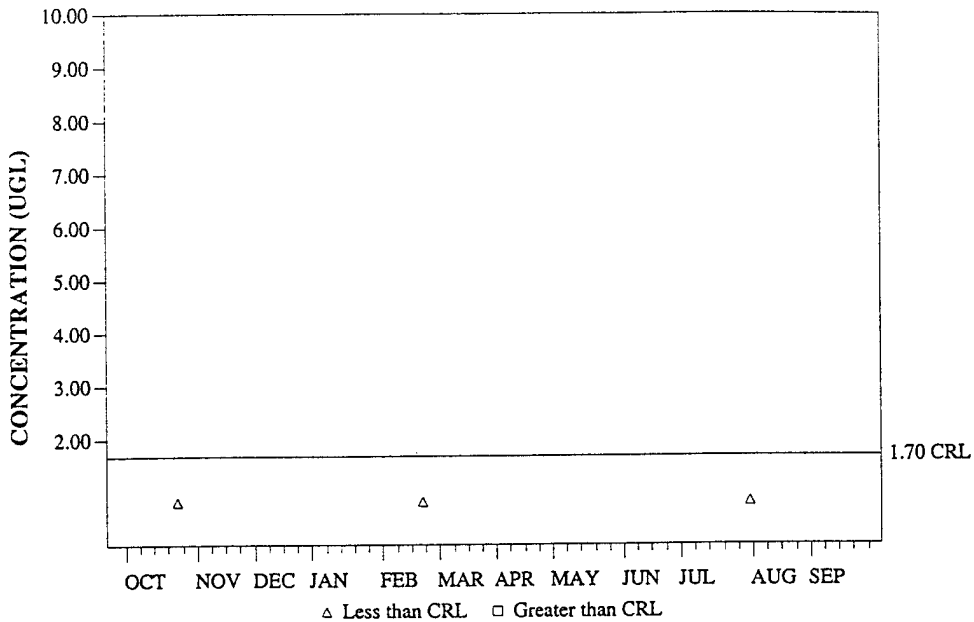


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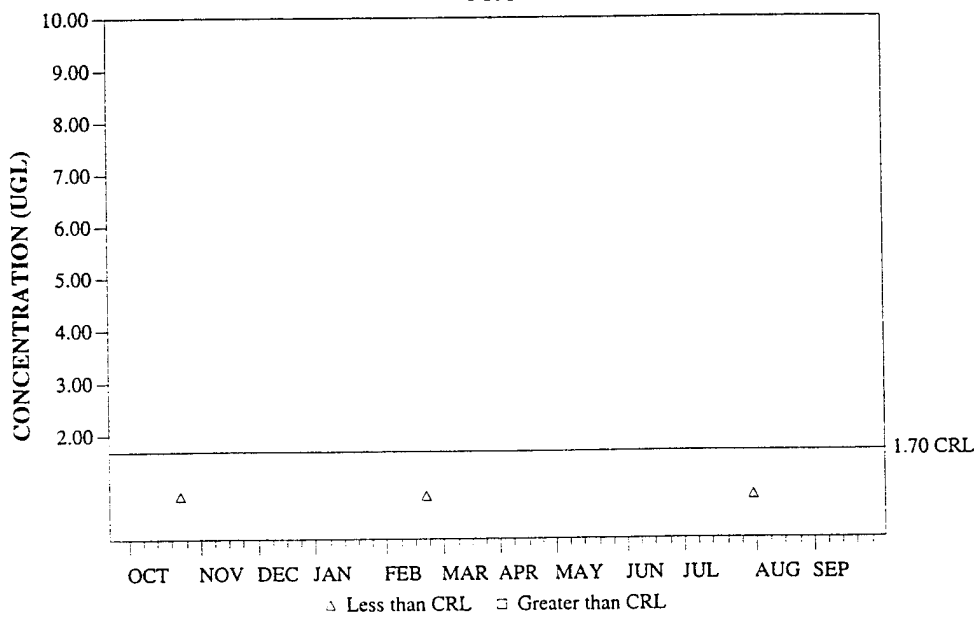
12/10/93

Figure 17. (Concluded)

SOUTH PLANTS PSIFIN - 11DCE  
 1,1-DICHLOROETHYLENE  
 FY91



SOUTH PLANTS PSAAEF - 11DCE  
 1,1-DICHLOROETHYLENE  
 FY91

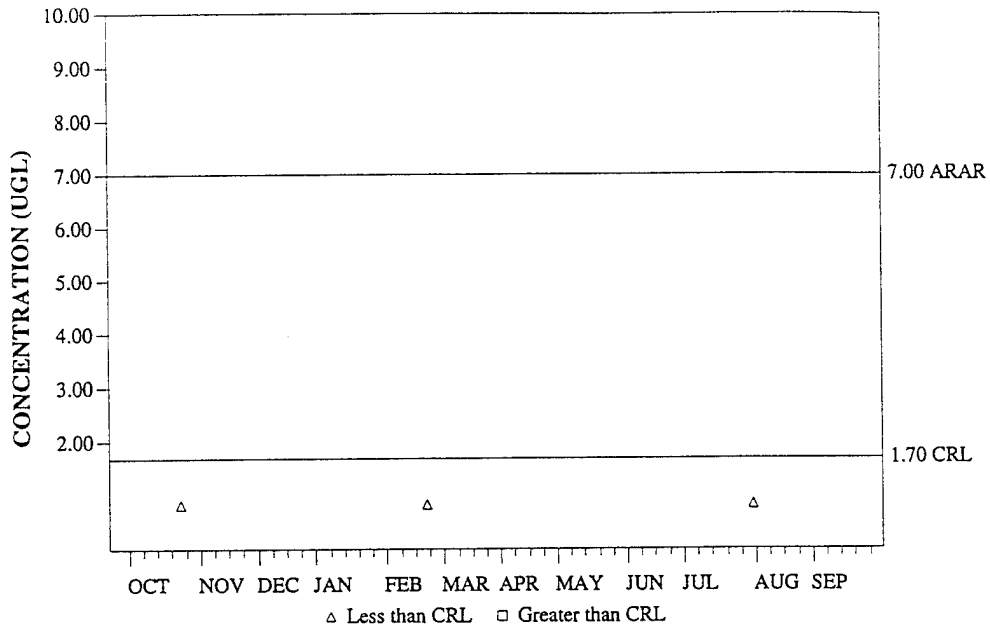


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Figure 18. (Continued)

SOUTH PLANTS PSASEF - 11DCE  
1,1-DICHLOROETHYLENE  
FY91

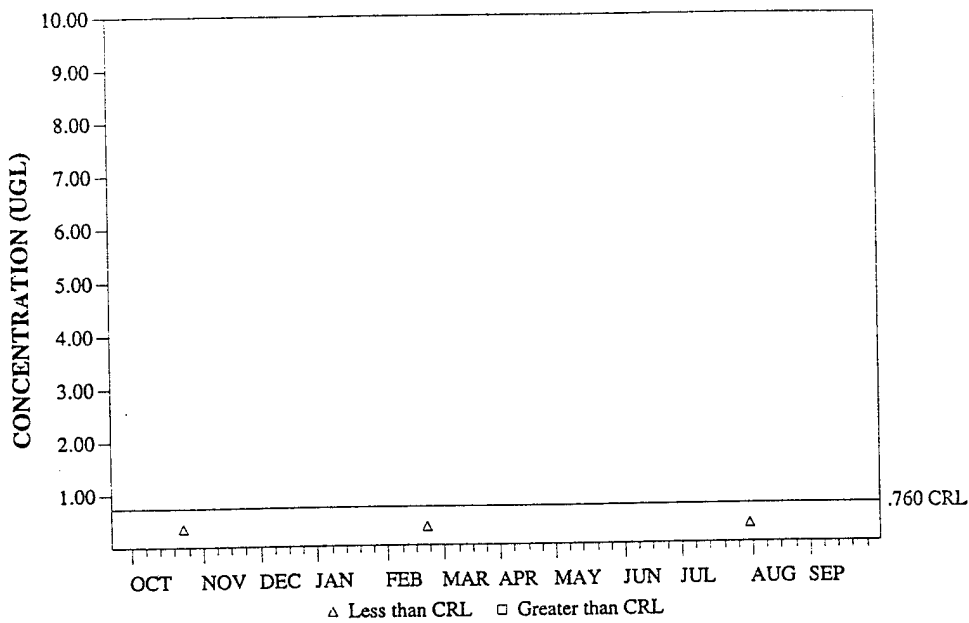


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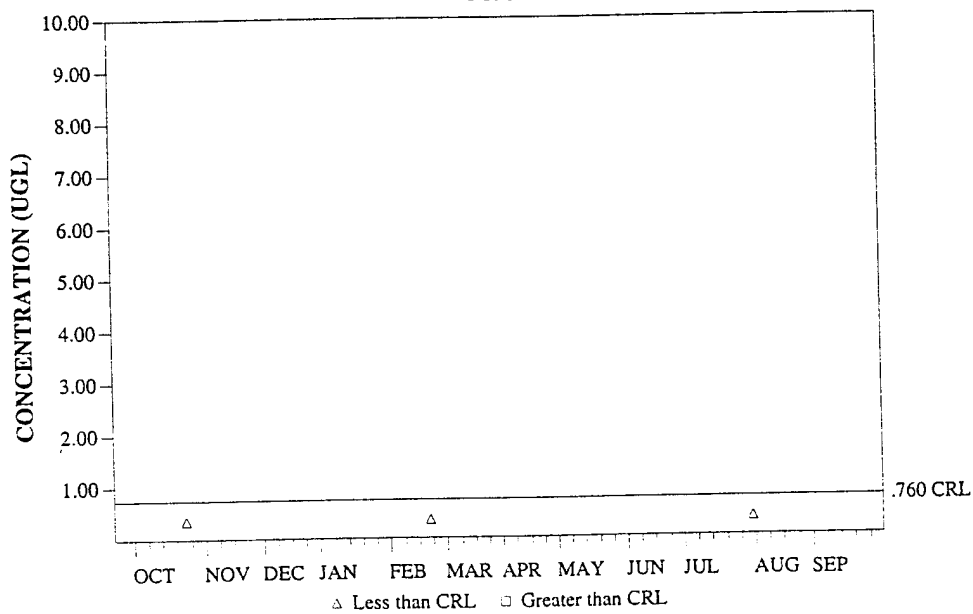
12/10/93

Figure 18. (Concluded)

SOUTH PLANTS PSIFIN - 12DCE  
1,2-DICHLOROETHYLENE  
FY91



SOUTH PLANTS PSAAEF - 12DCE  
1,2-DICHLOROETHYLENE  
FY91

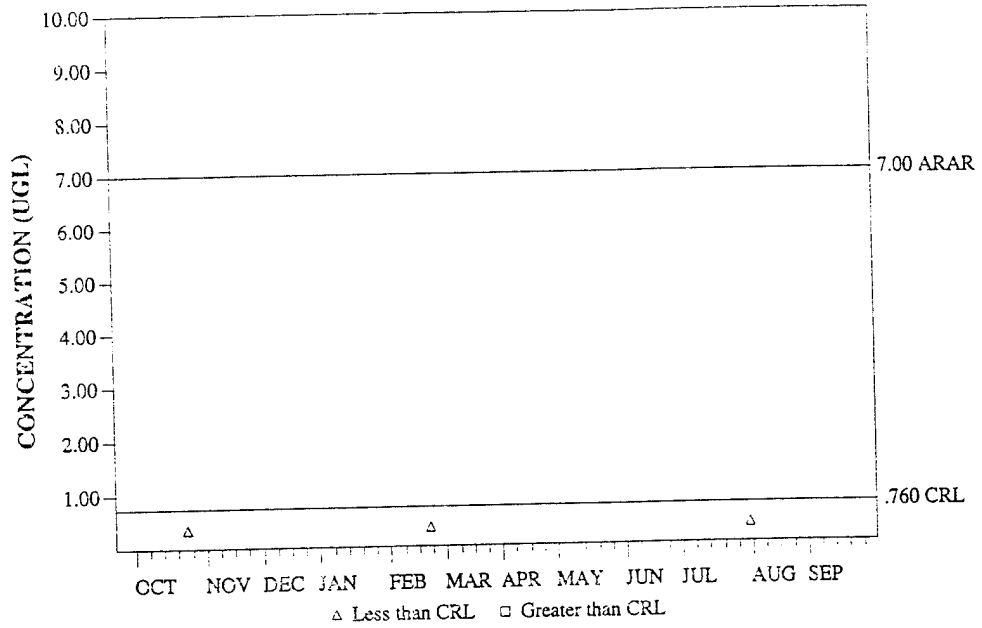


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Figure 19. (Continued)

SOUTH PLANTS PSASEF - 12DCE  
1,2-DICHLOROETHYLENE  
FY91



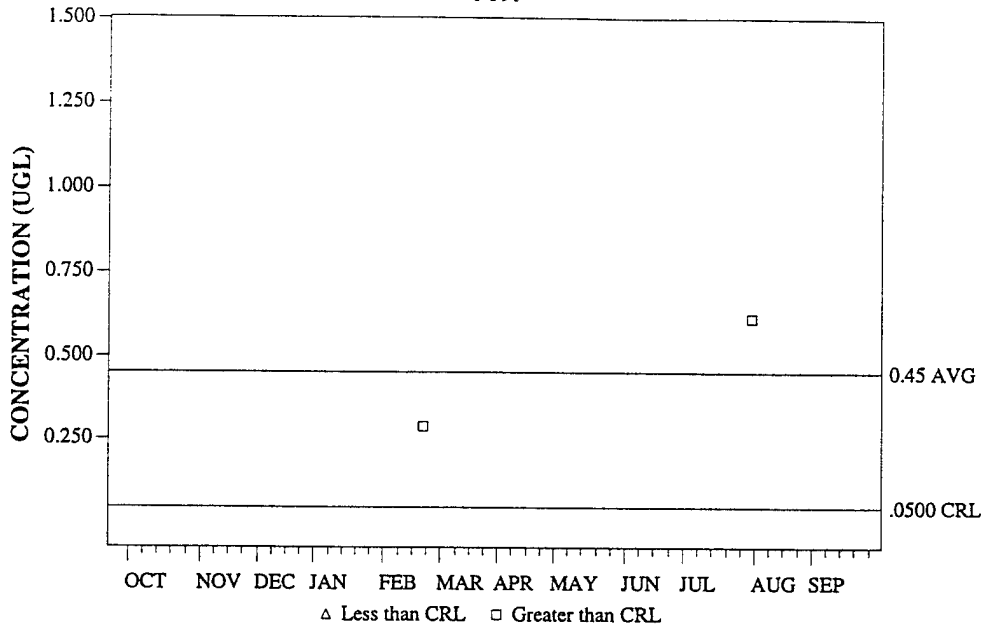
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Figure 19. (Concluded)

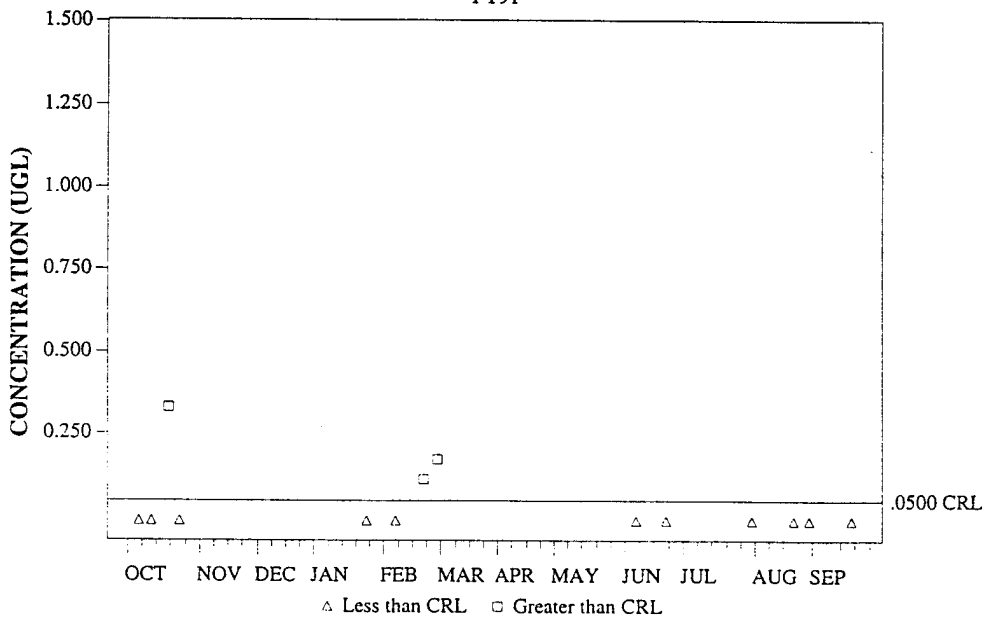
SOUTH PLANTS PSIFIN - DLDRN

DIELDRIN  
FY91



SOUTH PLANTS PSAAEF - DLDRN

DIELDRIN  
FY91

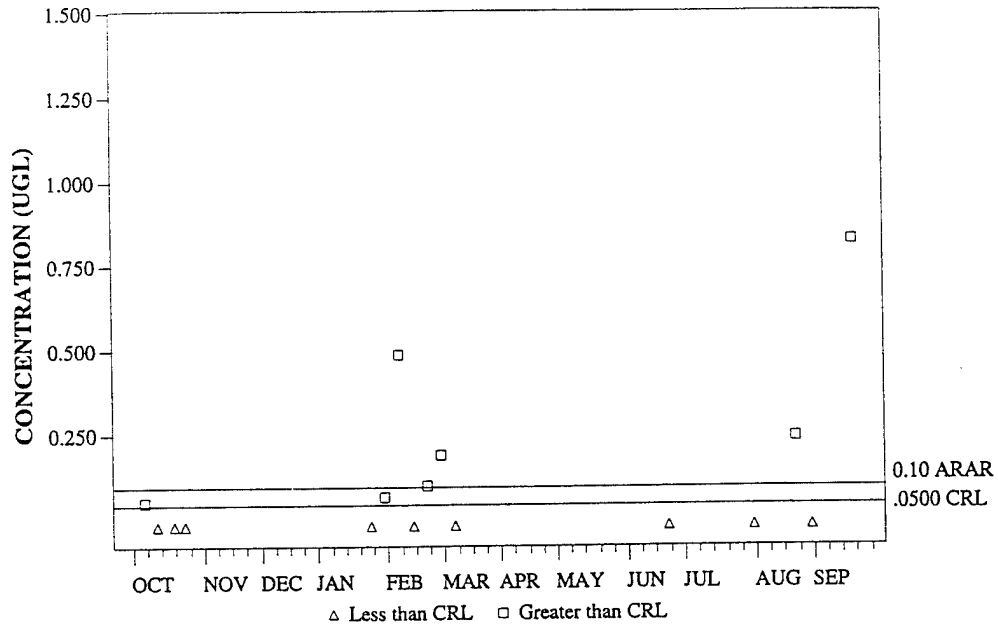


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Figure 20. (Continued)

SOUTH PLANTS PSASEF - DLDRN  
 DIELDRIN  
 FY91



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Figure 20. (Concluded)



38. Endrin. The ARAR standard for endrin at the CPS is  $0.1 \mu\text{g}/\ell$ . Only one system influent sample was analyzed for endrin in FY91 with a reported concentration below the CRL as indicated in Figure 21. Three of the fourteen carbon/alumina effluent samples were reported with concentrations in excess of the CRL ranging from  $0.05 \mu\text{g}/\ell$  to  $0.43 \mu\text{g}/\ell$ . Four of the sixteen system effluent samples were reported with endrin concentrations in excess of the ARAR standard ranging from  $0.31 \mu\text{g}/\ell$  to  $2.7 \mu\text{g}/\ell$ . Nine of the sixteen system effluent samples were reported as having concentrations below the CRL.

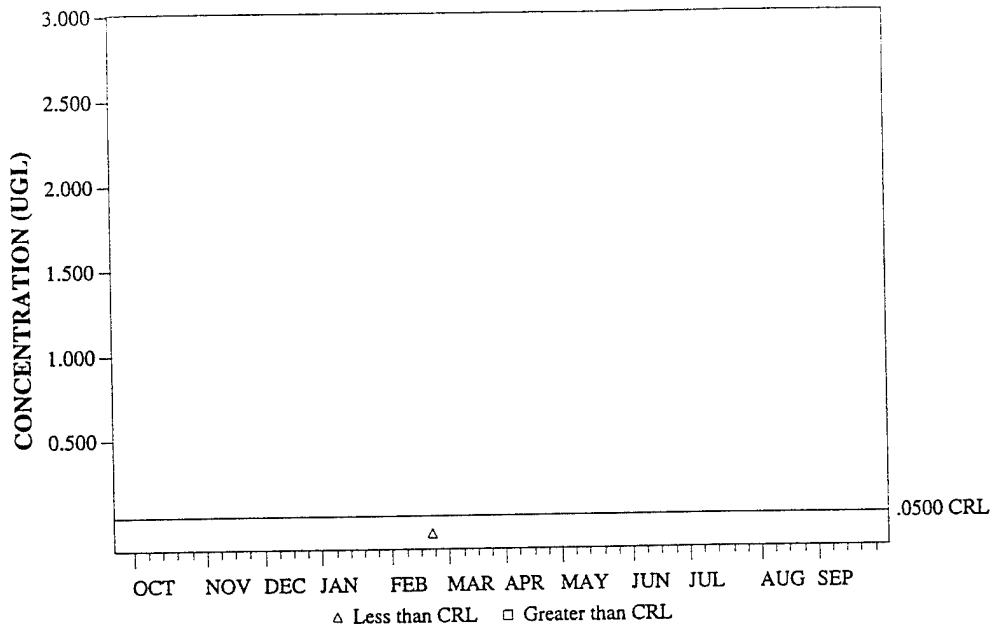
39. Ethylbenzene. The ARAR standard for ethylbenzene at the CPS is  $680 \mu\text{g}/\ell$ . As indicated in Figure 22, no concentrations of ethylbenzene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for ethylbenzene in FY91. Thus, no concentrations of ethylbenzene above the ARAR standard were reported for any system effluent samples in FY91.

40. Fluoride. The ARAR standard for fluoride at the CPS is  $2 \text{ mg}/\ell$ . The concentrations of fluoride reported for the three system influent samples collected in FY91 ranged from  $1.24 \text{ mg}/\ell$  to  $39.0 \text{ mg}/\ell$  with a mean value of  $13.9 \text{ mg}/\ell$  as indicated in Figure 23. For the three carbon/alumina effluent samples, the reported fluoride concentrations ranged from  $1.14 \text{ mg}/\ell$  to  $30 \text{ mg}/\ell$  with a mean value of  $10.9 \text{ mg}/\ell$ . One of the three system effluent samples was reported with a fluoride concentration in excess of the ARAR standard at  $43.0 \text{ mg}/\ell$ . It should be noted that the  $43.0 \text{ mg}/\ell$  value was reported for a sample collected on August 7, 1991. As previously discussed, no wastewater was discharged from the CPS during this time as the plant was being operated in a recycle mode to provide for treatment of high fluoride concentrations. Wastewater was not discharged until August 30, 1991 when the fluoride concentration was reduced to below  $2.0 \text{ mg}/\ell$  based on onsite analysis using a specific ion electrode method. The other two samples were reported with concentrations of  $1.61 \text{ mg}/\ell$  and  $1.13 \text{ mg}/\ell$ . As a result, no wastewater with a fluoride concentration in excess of  $2.0 \text{ mg}/\ell$  was actually discharged from the CPS.

41. Hexachlorocyclopentadiene. The ARAR standard for hexachlorocyclopentadiene at the CPS is  $49 \mu\text{g}/\ell$ . As indicated in Figure 24, no concentrations of hexachlorocyclopentadiene above the CRL were reported for any of the two system influent, carbon/alumina effluent, or system effluent samples analyzed for hexachlorocyclopentadiene in FY91. Thus, no concentrations of hexachlorocyclopentadiene above the ARAR standard were reported for any system effluent samples in FY91.

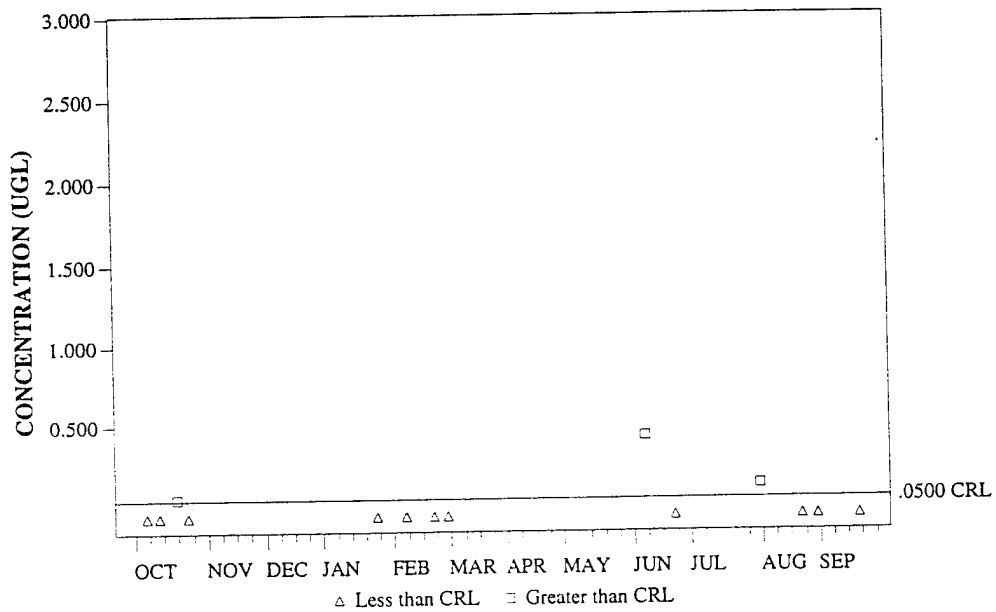
### SOUTH PLANTS PSIFIN - ENDRN

ENDRIN  
FY91



### SOUTH PLANTS PSAAEF - ENDRN

ENDRIN  
FY91



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Figure 21. (Continued)

# SOUTH PLANTS PSASEF - ENDRN

ENDRIN  
FY91

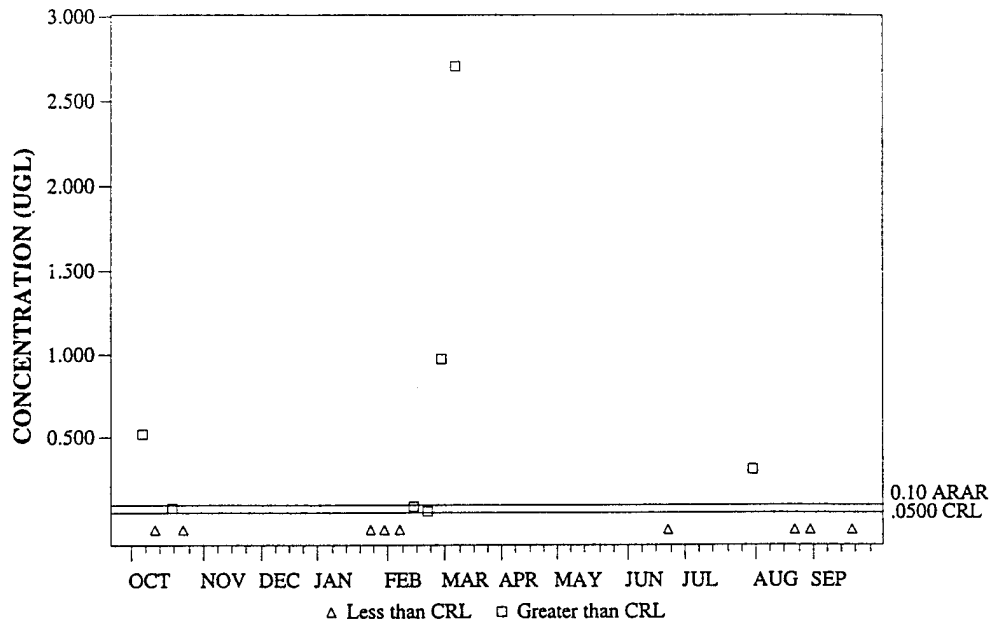
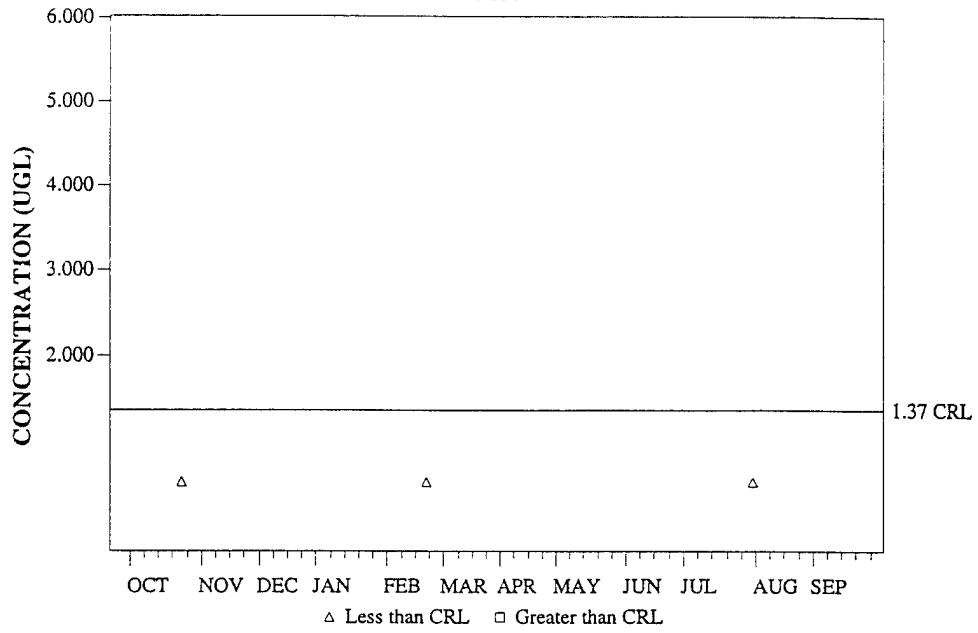
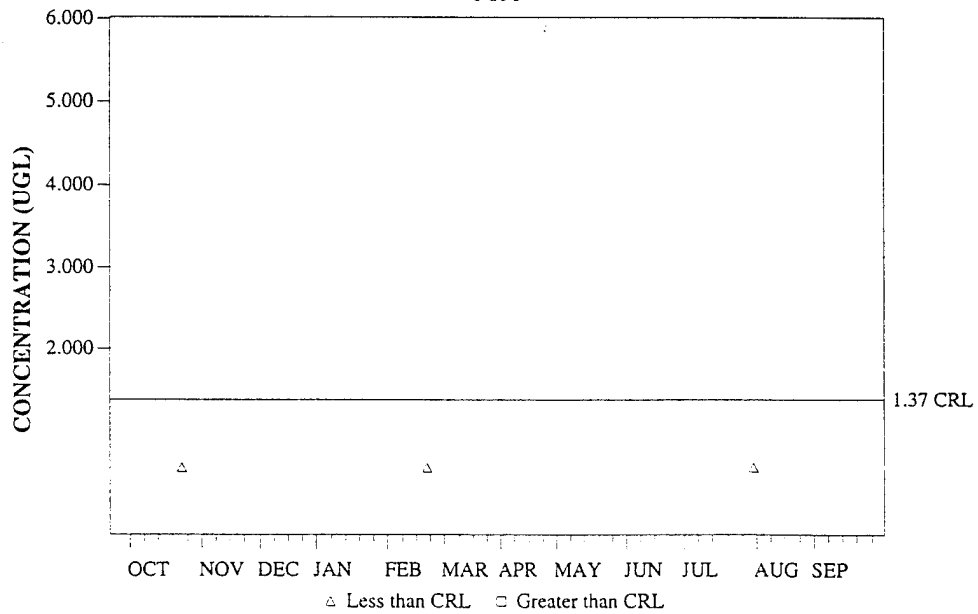


Figure 21. (Concluded)

SOUTH PLANTS PSIFIN - ETC6H5  
ETHYLBENZENE  
FY91



SOUTH PLANTS PSAAEF - ETC6H5  
ETHYLBENZENE  
FY91

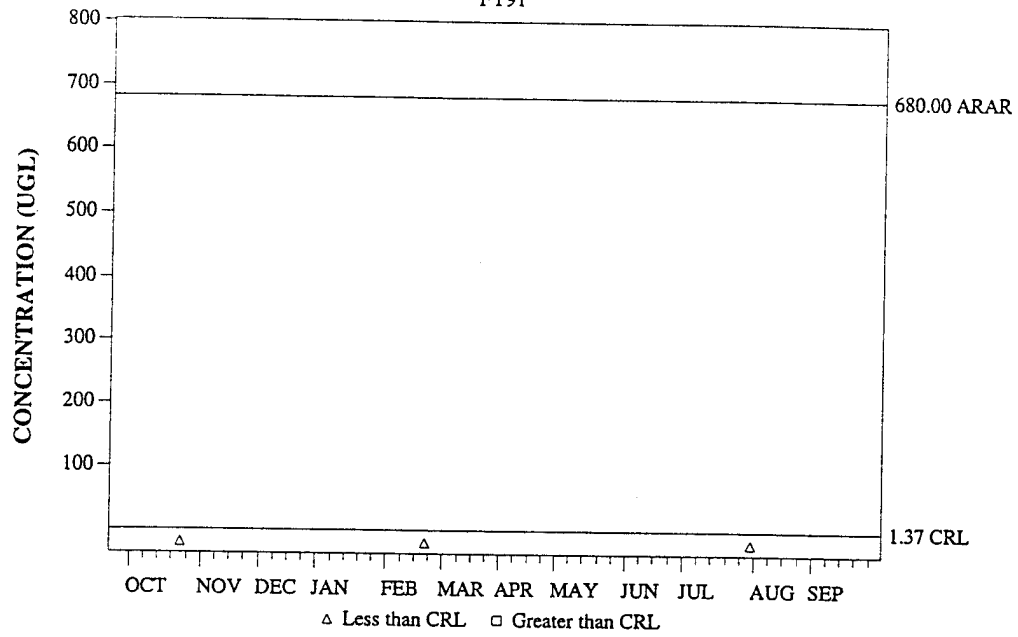


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Figure 22. (Continued)

SOUTH PLANTS PSASEF - ETC6H5  
ETHYLBENZENE  
FY91

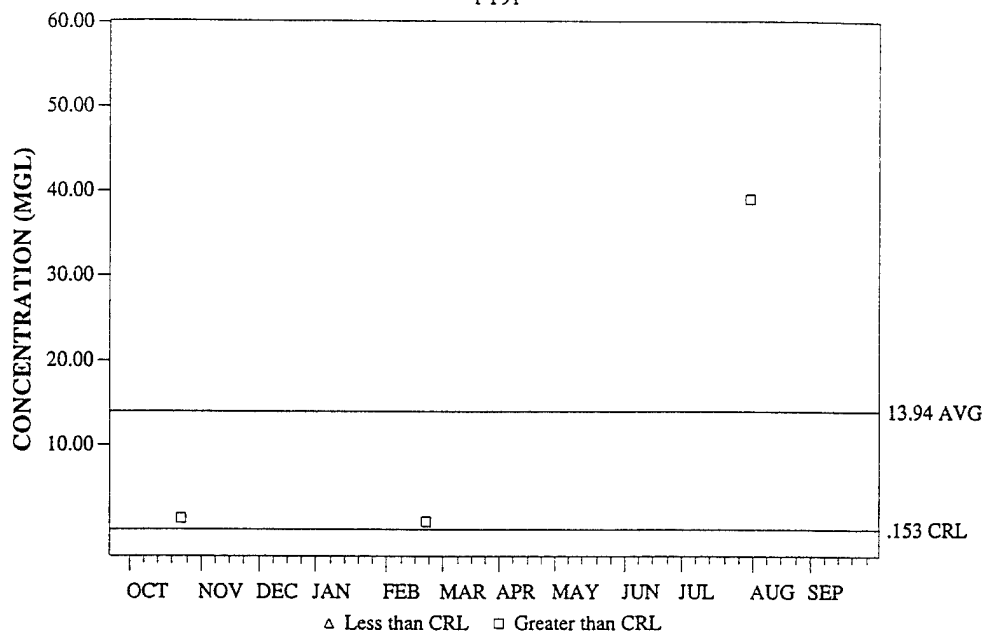


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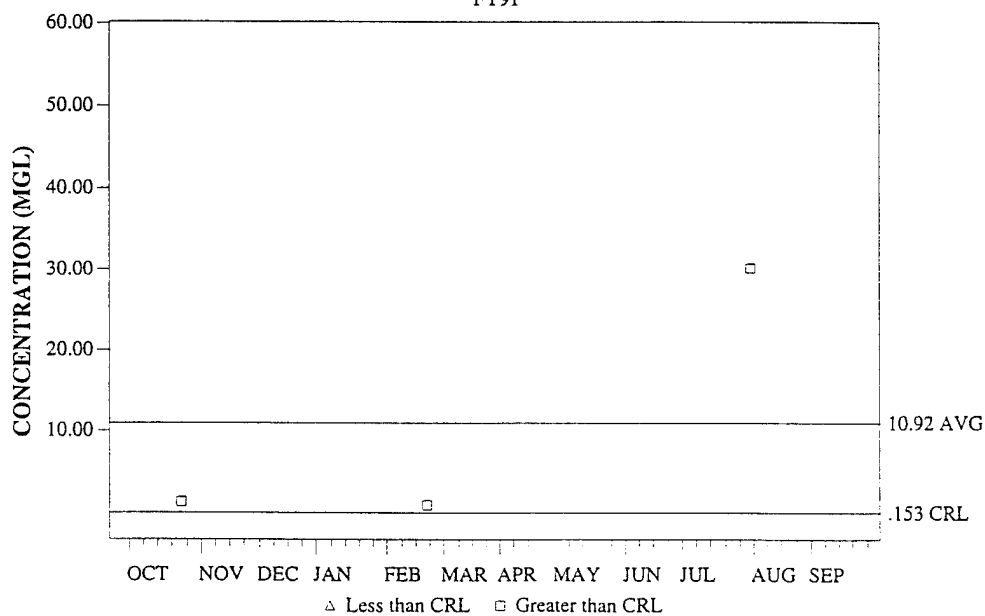
12/13/93

Figure 22. (Concluded)

SOUTH PLANTS PSIFIN - F  
FLUORIDE  
FY91



SOUTH PLANTS PSAAEF - F  
FLUORIDE  
FY91



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12/13/93

Figure 23. (Continued)

SOUTH PLANTS PSASEF - F  
FLUORIDE  
FY91

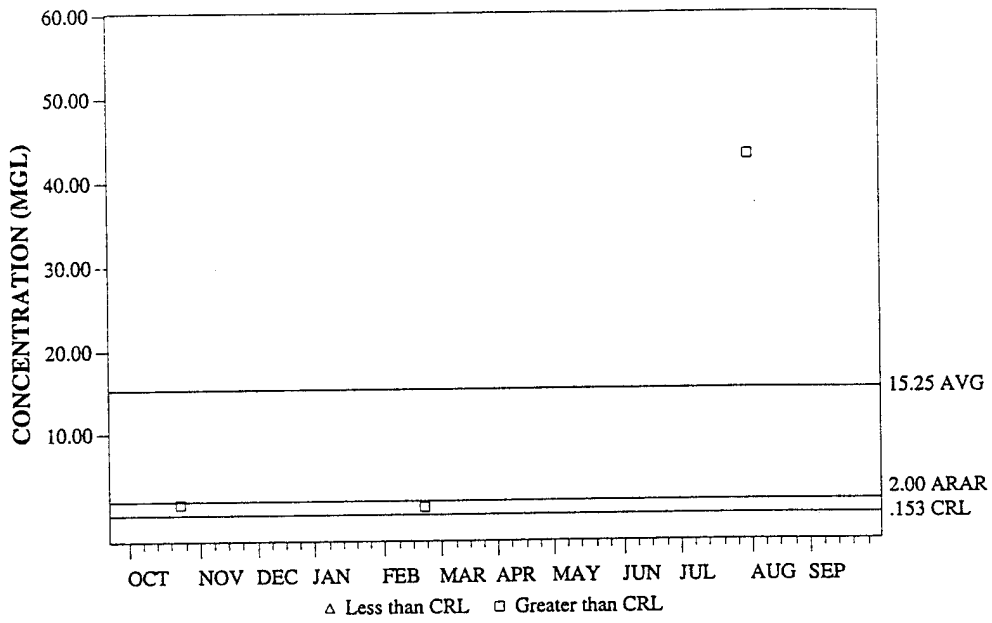
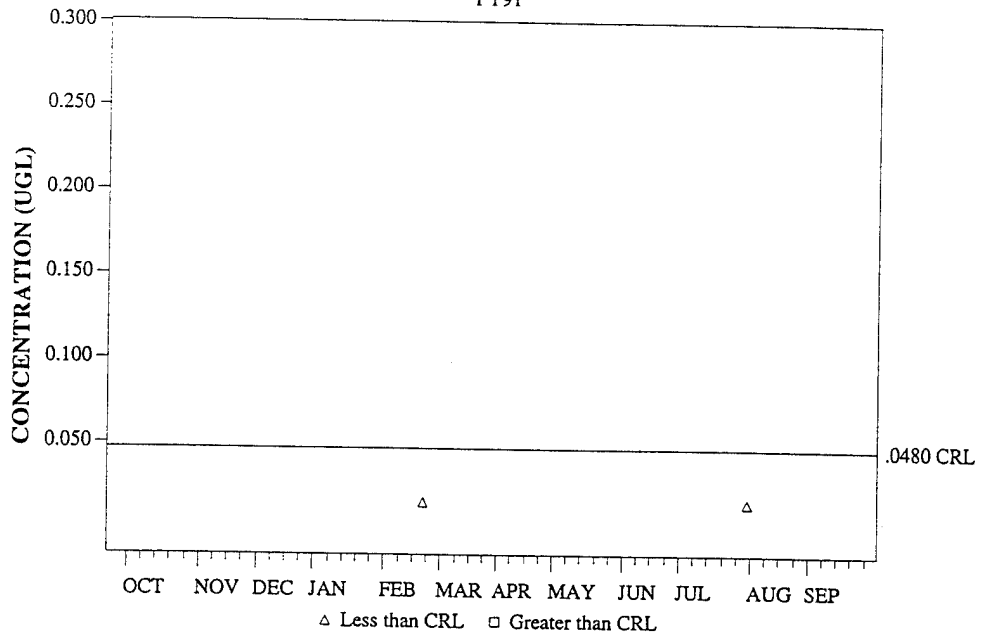
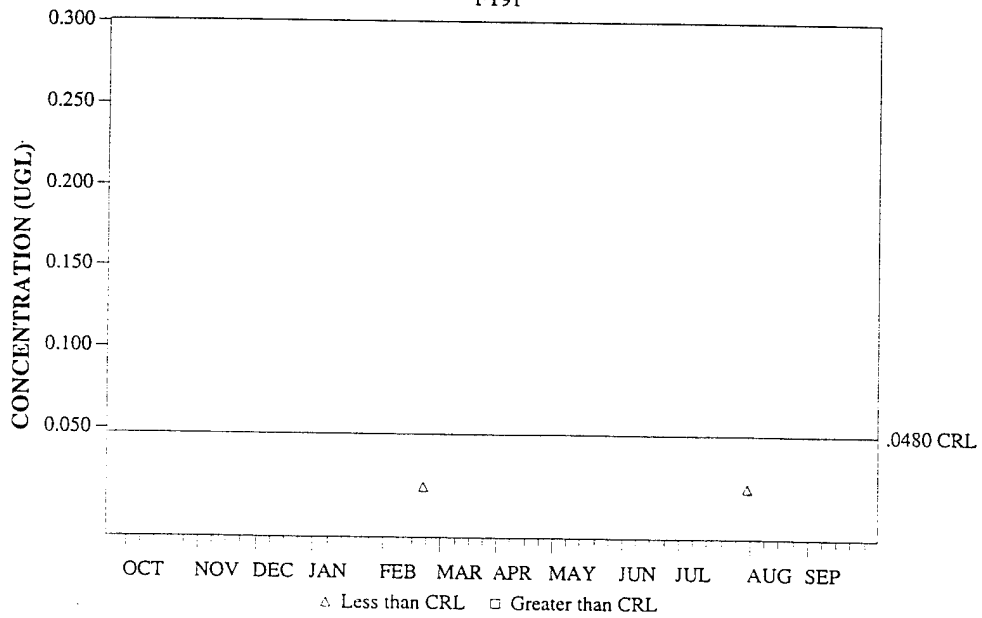


Figure 23. (Concluded)

SOUTH PLANTS PSIFIN - CL6CP  
HEXACHLOROCYCLOPENTADIENE  
FY91



SOUTH PLANTS PSAAEF - CL6CP  
HEXACHLOROCYCLOPENTADIENE  
FY91



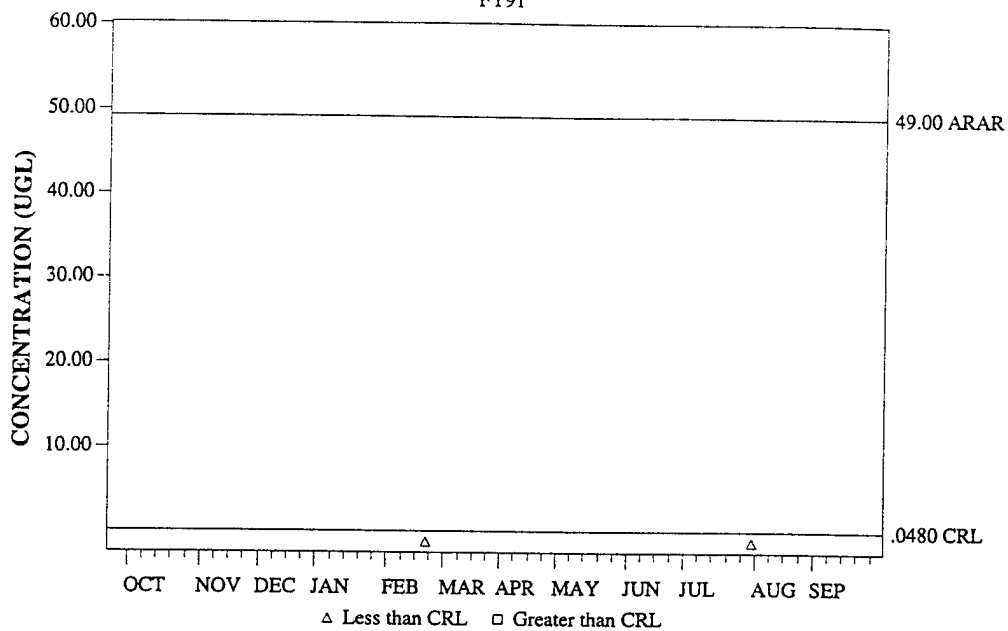
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12/10/93

Figure 24. (Continued)



SOUTH PLANTS PSASEF - CL6CP  
HEXACHLOROCYCLOPENTADIENE  
FY91



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12/10/93

Figure 24. (Concluded)

42. Lead. The ARAR standard for lead at the CPS is  $50 \mu\text{g}/\ell$ . The concentrations of lead reported for the three system influent samples collected in FY91 ranged from  $5.94 \mu\text{g}/\ell$  to  $69.0 \mu\text{g}/\ell$  with a mean value of  $28.1 \mu\text{g}/\ell$  as indicated in Figure 25. Only one of the three carbon/alumina effluent samples was reported with a lead concentration in excess of the CRL at  $10.4 \mu\text{g}/\ell$ . No concentrations of lead above the ARAR standard were reported for any system effluent samples in FY91. Only one of the three samples was reported with a lead concentration in excess of the CRL at  $5.33 \mu\text{g}/\ell$ . It should be noted that the CPS has no specific process for the removal of lead.

43. Mercury. The ARAR standard for mercury at the CPS is  $2 \mu\text{g}/\ell$ . The concentrations of mercury reported for the three system influent samples collected in FY91 ranged from  $0.72 \mu\text{g}/\ell$  to  $1.73 \mu\text{g}/\ell$  with a mean value of  $1.08 \mu\text{g}/\ell$  as indicated in Figure 26. Two of the three carbon/alumina effluent samples were reported with mercury concentrations in excess of the CRL with a maximum concentration of  $0.24 \mu\text{g}/\ell$  and a mean value for FY91 of  $0.17 \mu\text{g}/\ell$ . No concentrations of mercury above the ARAR standard were reported for any system effluent samples in FY91. Two of the three samples were reported with concentrations in excess of the CRL with a maximum mercury concentration of  $0.56 \mu\text{g}/\ell$  and a mean value of  $0.30 \mu\text{g}/\ell$ . It should be noted that the CPS has no specific process for the removal of mercury.

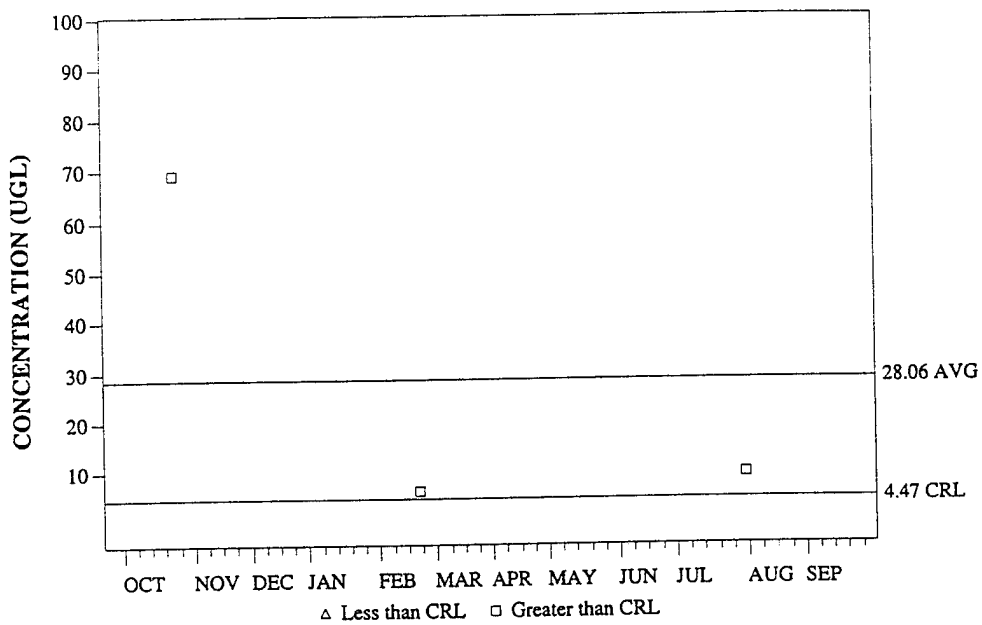
44. Parathion. The ARAR standard for parathion at the CPS is  $0.3 \mu\text{g}/\ell$ . As indicated in Figure 27, no concentrations of parathion above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for parathion in FY91. It is not possible to determine if any of the parathion concentrations in the system effluent samples were in excess of the ARAR standard since the CRL in FY91 was higher than the ARAR standard.

45. Tetrachloroethylene. The ARAR standard for tetrachloroethylene at the CPS is  $10 \mu\text{g}/\ell$ . The concentrations of tetrachloroethylene reported for the three system influent samples collected in FY91 ranged from  $1.16 \mu\text{g}/\ell$  to  $10.0 \mu\text{g}/\ell$  with a mean value of  $5.25 \mu\text{g}/\ell$  as indicated in Figure 28. Only one of the three carbon/alumina effluent samples was reported with a tetrachloroethylene concentration in excess of the CRL at  $2.56 \mu\text{g}/\ell$ . No concentrations of tetrachloroethylene above the ARAR standard were reported for any system effluent samples in FY91. None of the three samples were reported with concentrations in excess of the CRL.

46. Toluene. The ARAR standard for toluene at the CPS is  $2,420 \mu\text{g}/\ell$ . As indicated in Figure 29, no concentrations of toluene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples

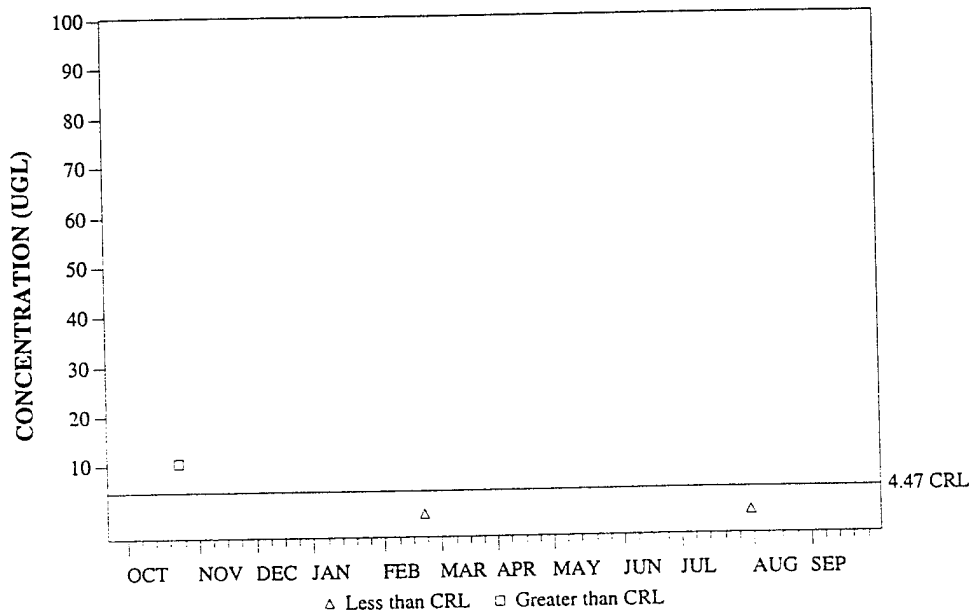
### SOUTH PLANTS PSIFIN - PB

LEAD  
FY91



### SOUTH PLANTS PSAAEF - PB

LEAD  
FY91



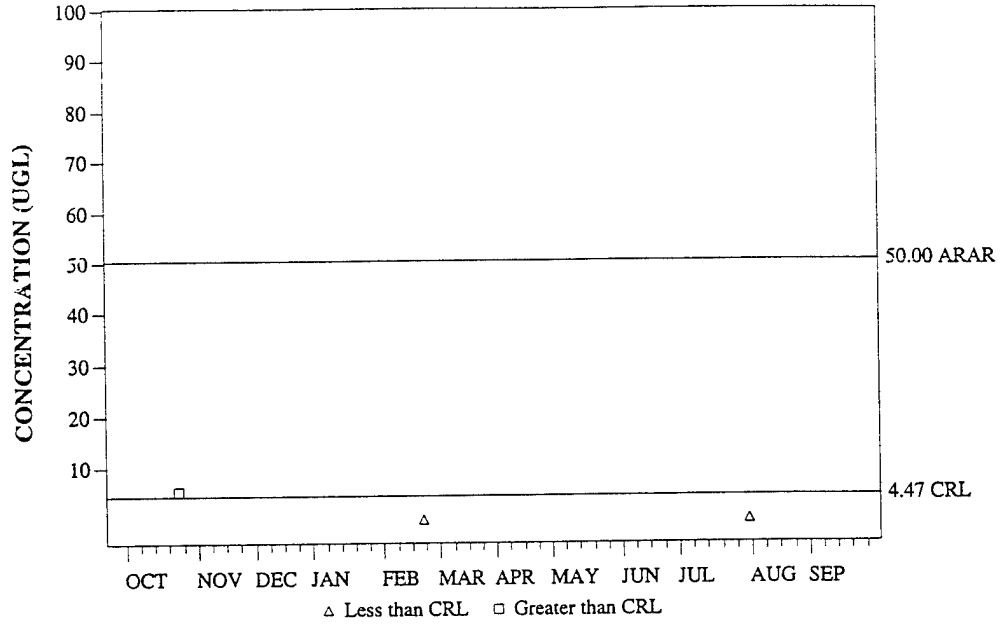
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12/13/93

Figure 25. (Continued)

# SOUTH PLANTS PSASEF - PB

LEAD  
FY91



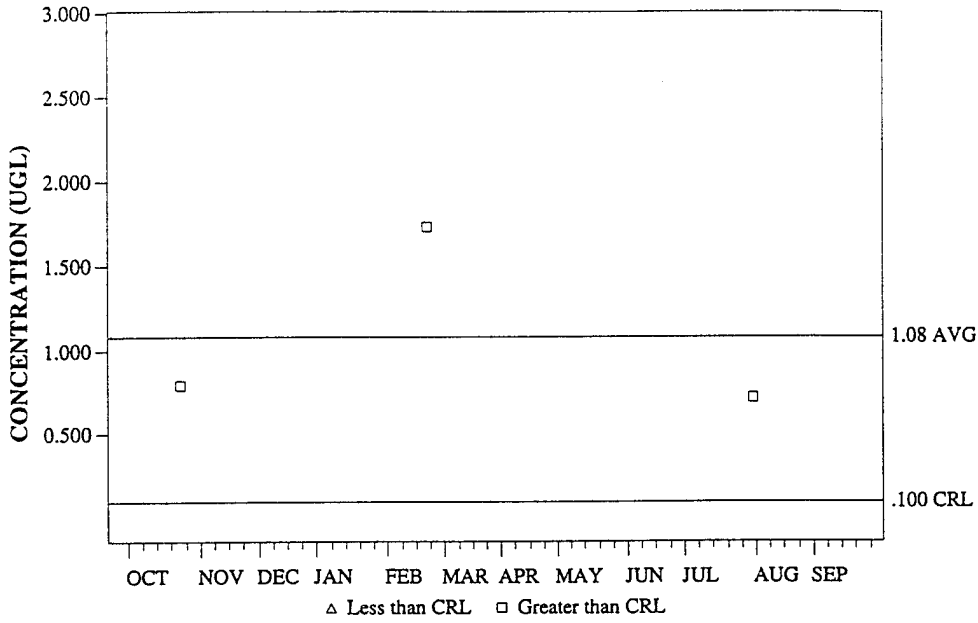
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12/13/93

Figure 25. (Concluded)

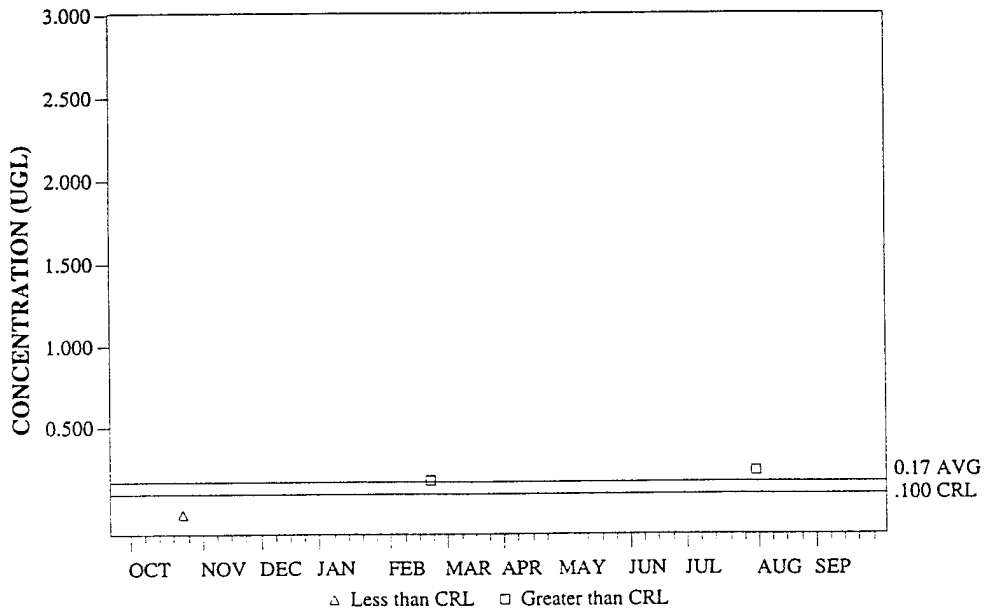
### SOUTH PLANTS PSIFIN - HG

MERCURY  
FY91



### SOUTH PLANTS PSAAEF - HG

MERCURY  
FY91

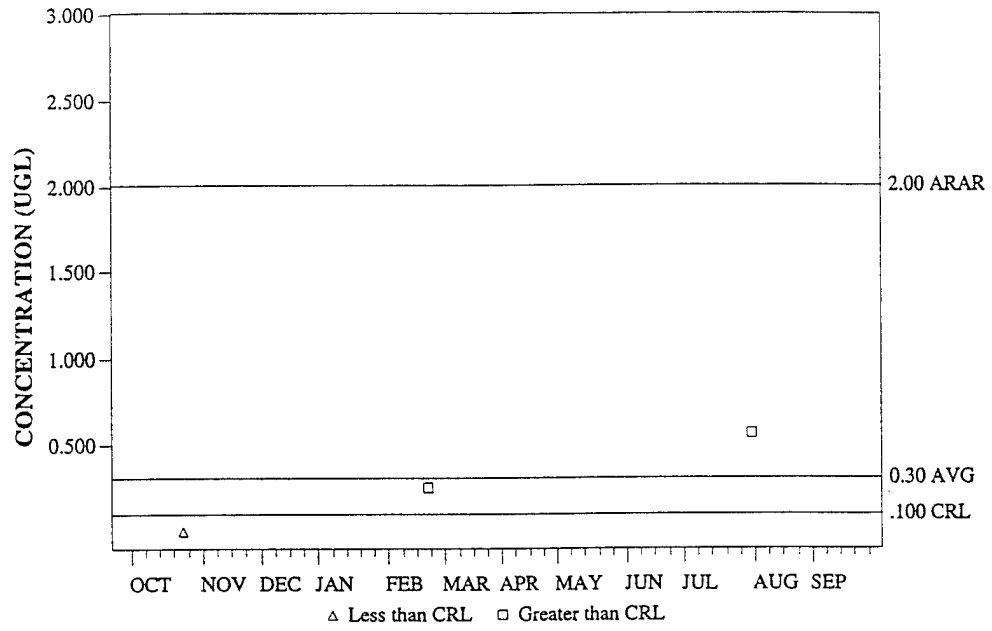


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Figure 26. (Continued)

SOUTH PLANTS PSASEF - HG  
MERCURY  
FY91

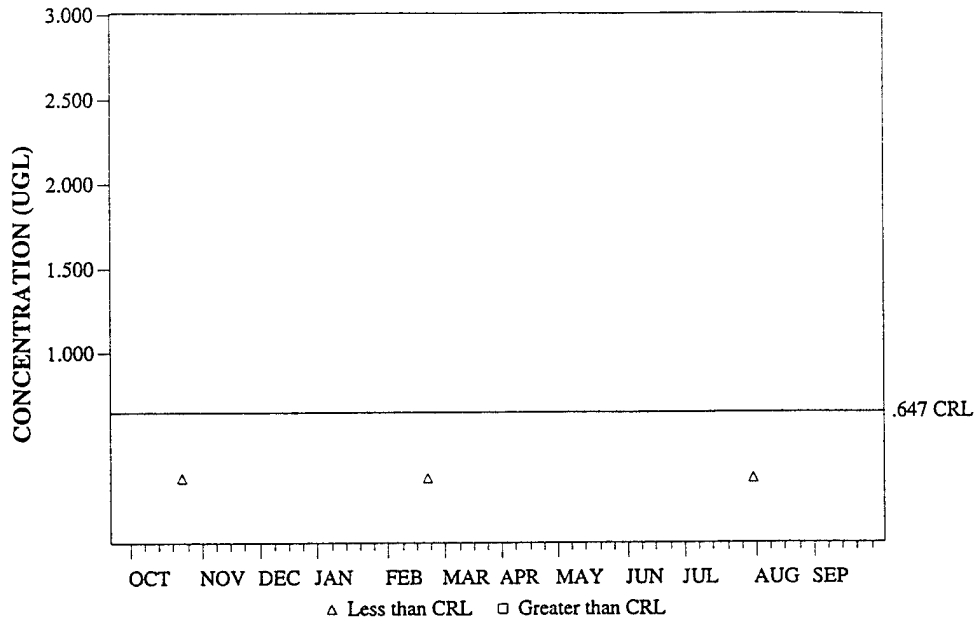


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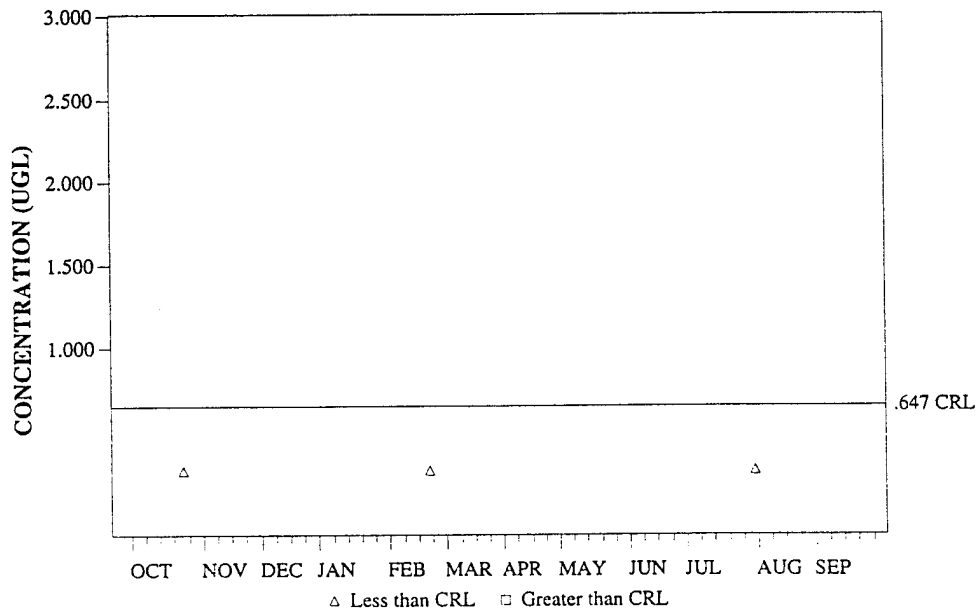
12/13/93

Figure 26. (Concluded)

SOUTH PLANTS PSIFIN - PRTHN  
 PARATHION  
 FY91



SOUTH PLANTS PSAAEF - PRTHN  
 PARATHION  
 FY91

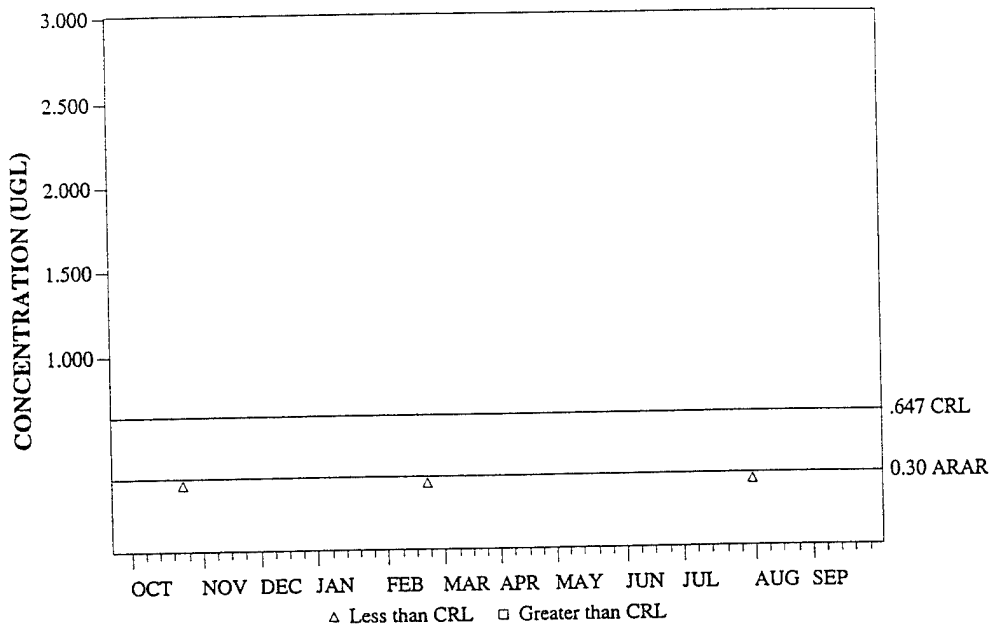


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Figure 27. (Continued)

SOUTH PLANTS PSASEF - PRTHN  
PARATHION  
FY91



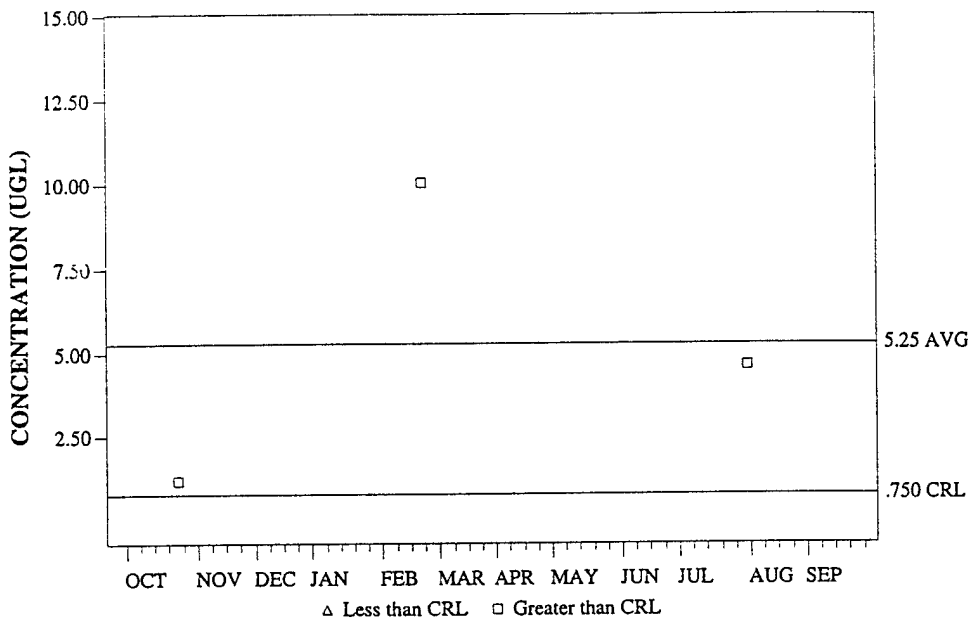
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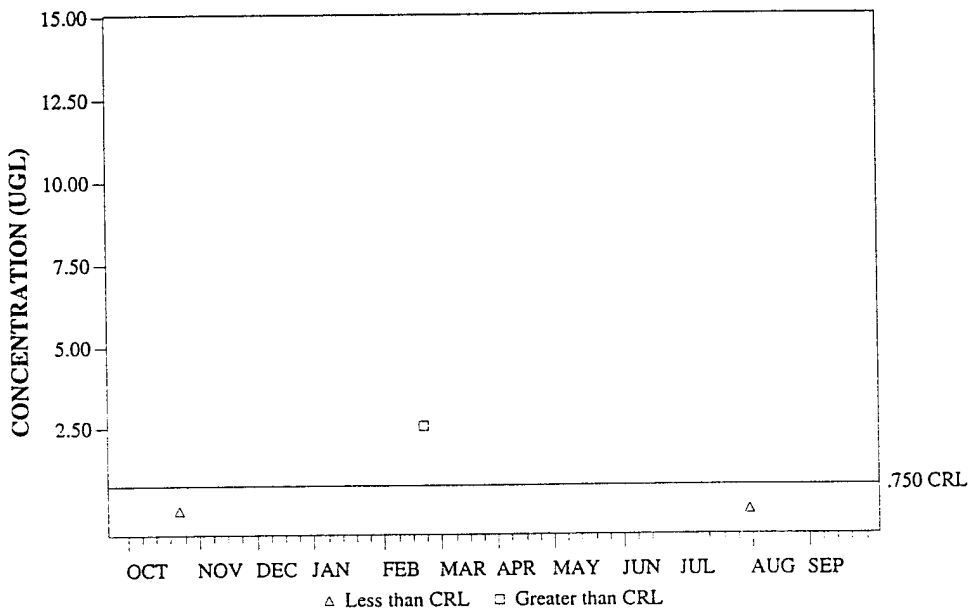
Figure 27. (Concluded)



SOUTH PLANTS PSIFIN - TCLEE  
TETRACHLOROETHYLENE  
FY91



SOUTH PLANTS PSAAEF - TCLEE  
TETRACHLOROETHYLENE  
FY91

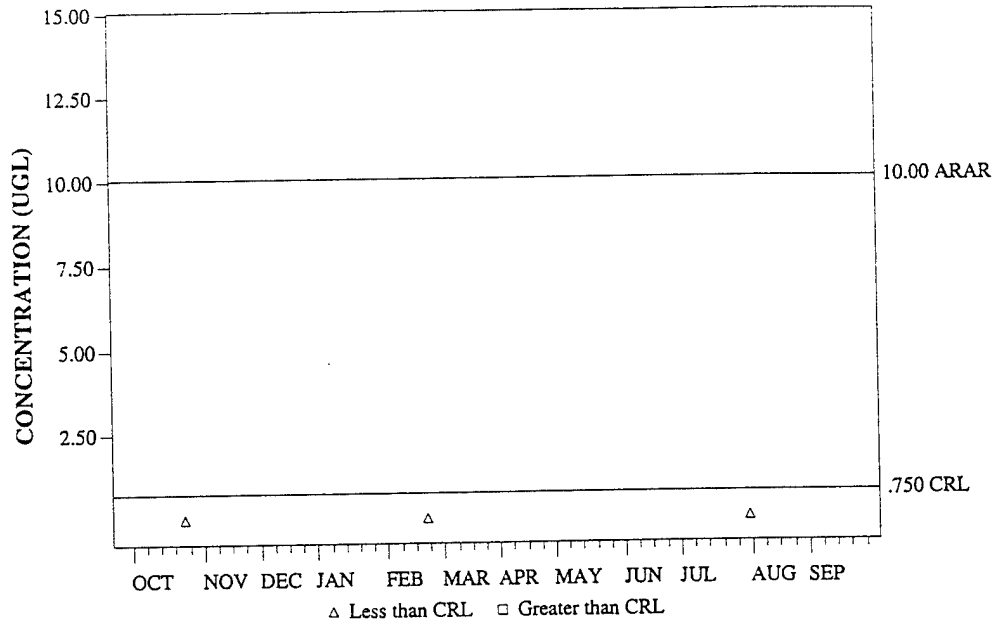


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Figure 28. (Continued)

SOUTH PLANTS PSASEF - TCLEE  
TETRACHLOROETHYLENE  
FY91



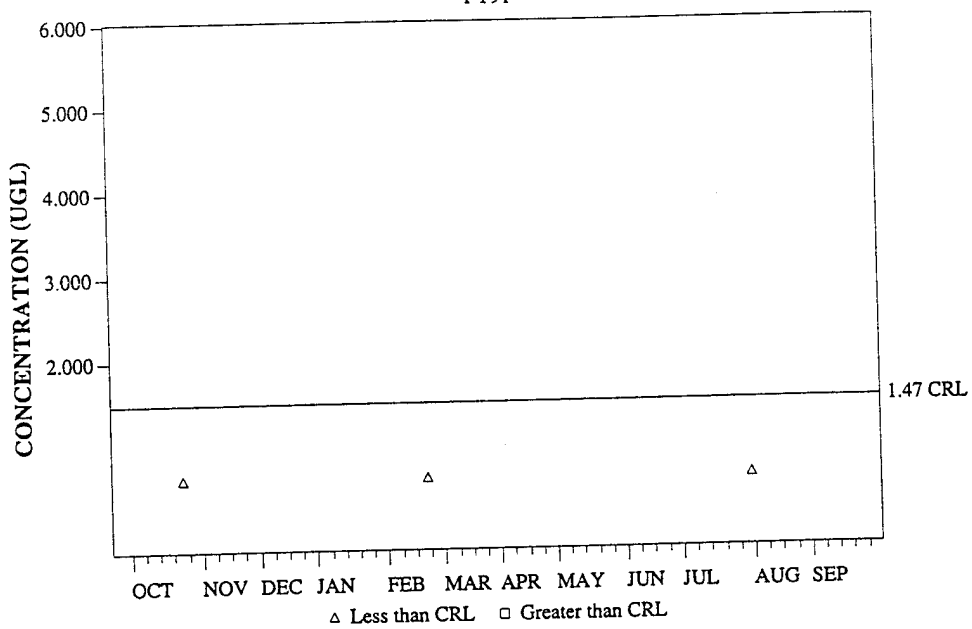
D.P. ASSOCIATES, INC

12/13/93

Figure 28. (Concluded)

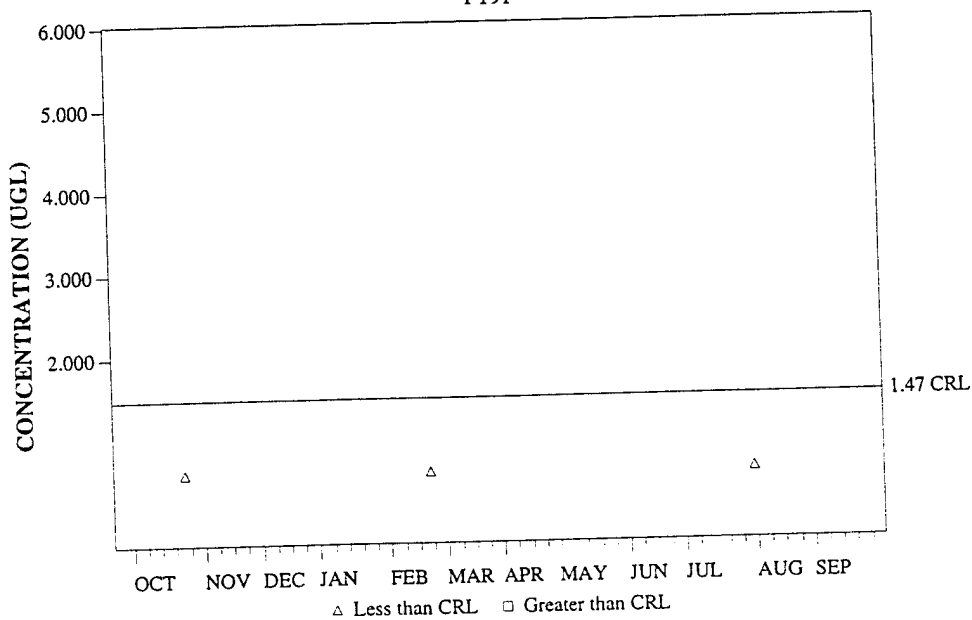
### SOUTH PLANTS PSIFIN - MEC6H5

TOLUENE  
FY91



### SOUTH PLANTS PSAAEF - MEC6H5

TOLUENE  
FY91



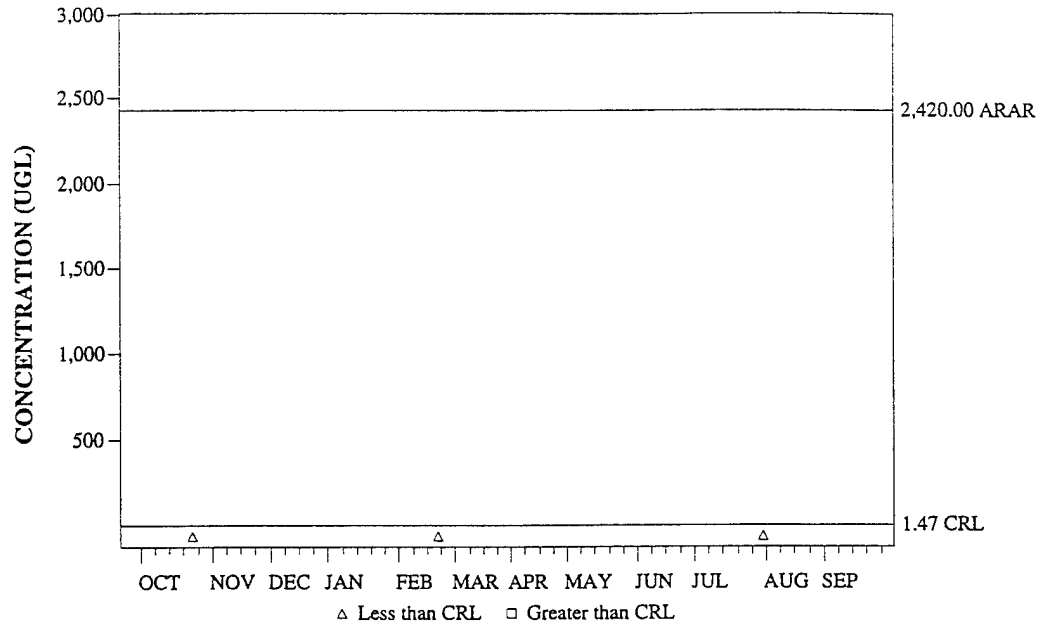
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12/13/93

Figure 29. (Continued)

# SOUTH PLANTS PSASEF - MEC6H5

TOLUENE  
FY91



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12/13/93

Figure 29. (Concluded)

analyzed for toluene in FY91. Thus, no concentrations of toluene above the ARAR standard were reported for any system effluent samples in FY91.

47. 1,1,1-Trichloroethane. The ARAR standard for 1,1,1-trichloroethane at the CPS is 200  $\mu\text{g}/\ell$ . As indicated in Figure 30, no concentrations of 1,1,1-trichloroethane above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for 1,1,1-trichloroethane in FY91. Thus, no concentrations of 1,1,1-trichloroethane above the ARAR standard were reported for any system effluent samples in FY91.

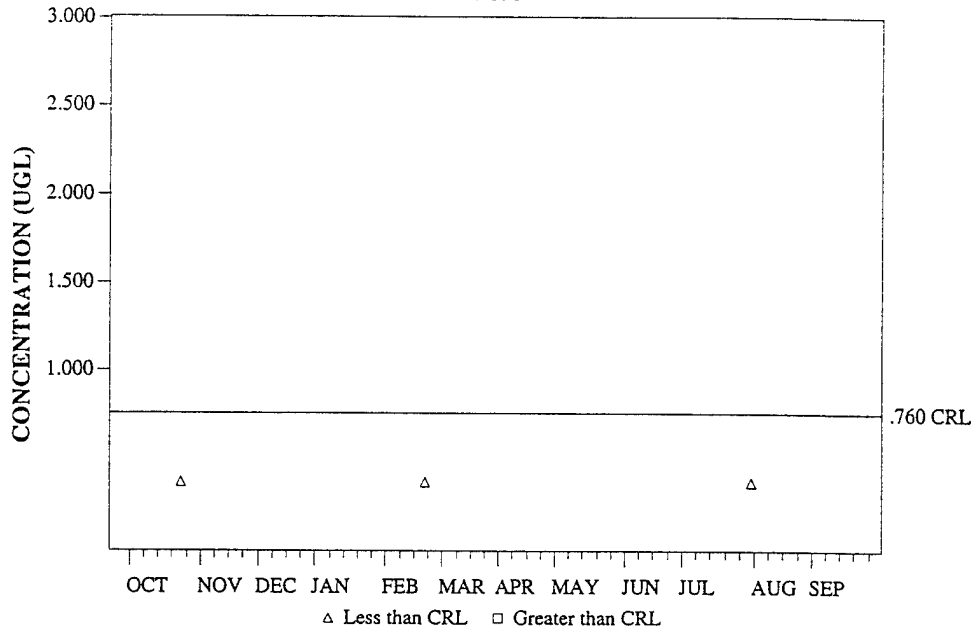
48. 1,1,2-Trichloroethane. The ARAR standard for 1,1,2-trichloroethane at the CPS is 28  $\mu\text{g}/\ell$ . As indicated in Figure 31, no concentrations of 1,1,2-trichloroethane above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for 1,1,2-trichloroethane in FY91. Thus, no concentrations of 1,1,2-trichloroethane above the ARAR standard were reported for any system effluent samples in FY91.

49. Trichloroethylene. The ARAR standard for trichloroethylene at the CPS is 5  $\mu\text{g}/\ell$ . As indicated in Figure 32, no concentrations of trichloroethylene above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for trichloroethylene in FY91. Thus, no concentrations of trichloroethylene above the ARAR standard were reported for any system effluent samples in FY91.

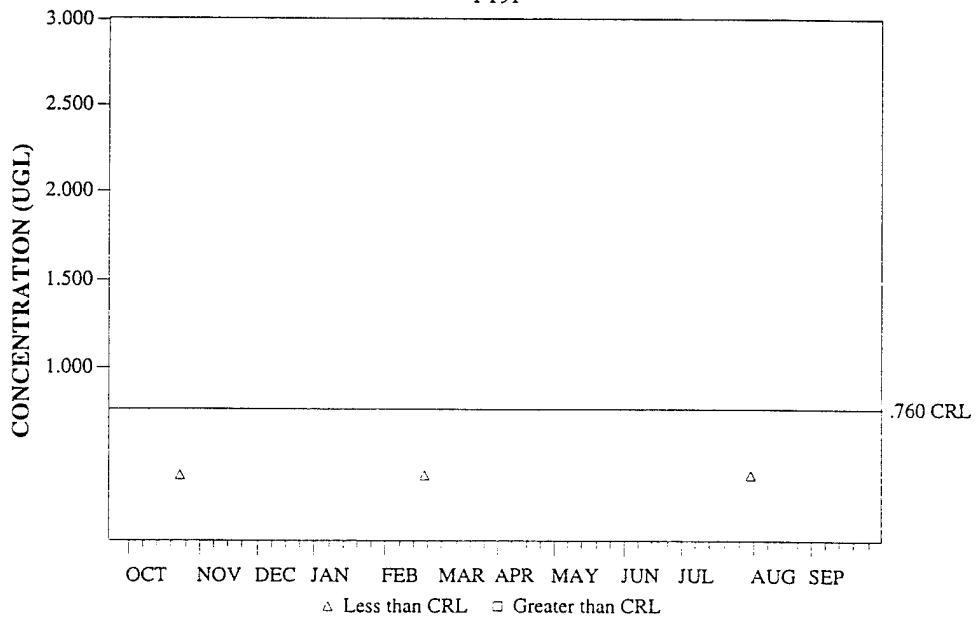
50. Vinyl Chloride. The ARAR standard for vinyl chloride at the CPS is 2  $\mu\text{g}/\ell$ . As indicated in Figure 33, no concentrations of vinyl chloride above the CRL were reported for any of the three system influent, carbon/alumina effluent, or system effluent samples analyzed for vinyl chloride in FY91. Thus, no concentrations of vinyl chloride above the ARAR standard were reported for any system effluent samples in FY91.

51. Zinc. The ARAR standard for zinc at the CPS is 2,000  $\mu\text{g}/\ell$ . The concentrations of zinc reported for the three system influent samples collected in FY91 ranged from 68.3  $\mu\text{g}/\ell$  to 74.6  $\mu\text{g}/\ell$  with a mean value of 71.4  $\mu\text{g}/\ell$  as indicated in Figure 34. Two of the three carbon/alumina effluent samples were reported with a zinc concentration in excess of the CRL with a maximum concentration of 36.3  $\mu\text{g}/\ell$  and a mean value for FY91 of 26.3  $\mu\text{g}/\ell$ . No concentrations of zinc above the ARAR standard were reported for any system effluent samples in FY91. The zinc concentrations in these samples ranged from 42.7  $\mu\text{g}/\ell$  to 165  $\mu\text{g}/\ell$  with a mean value of 101.3  $\mu\text{g}/\ell$ .

SOUTH PLANTS PSIFIN - 111TCE  
1,1,1-TRICHLOROETHANE  
FY91



SOUTH PLANTS PSAAEF - 111TCE  
1,1,1-TRICHLOROETHANE  
FY91

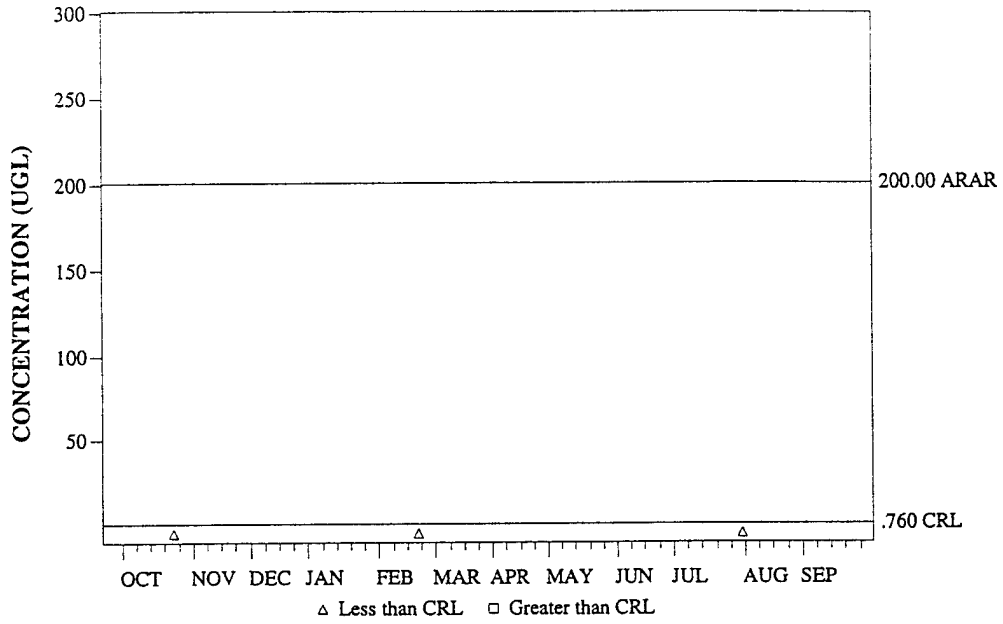


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Figure 30. (Continued)

SOUTH PLANTS PSASEF - 111TCE  
1,1,1-TRICHLOROETHANE  
FY91

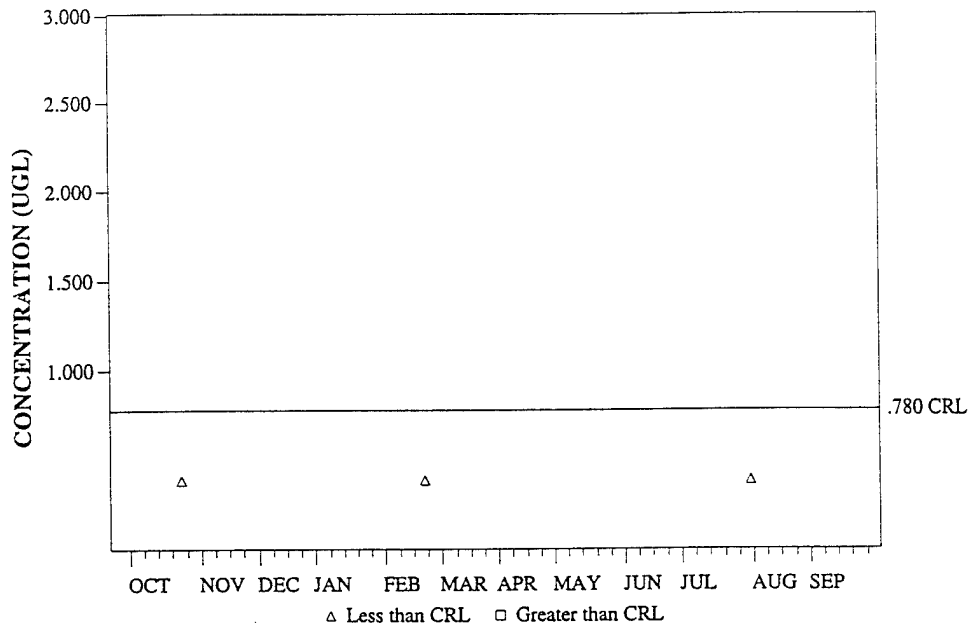


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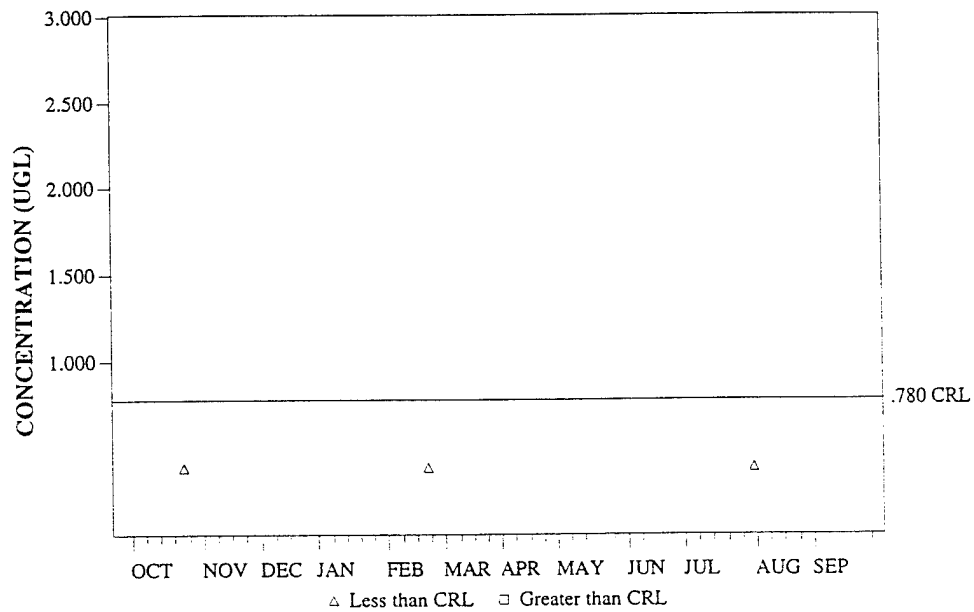
12/10/93

Figure 30. (Concluded)

SOUTH PLANTS PSIFIN - 112TCE  
1,1,2-TRICHLOROETHANE  
FY91



SOUTH PLANTS PSAAEF - 112TCE  
1,1,2-TRICHLOROETHANE  
FY91



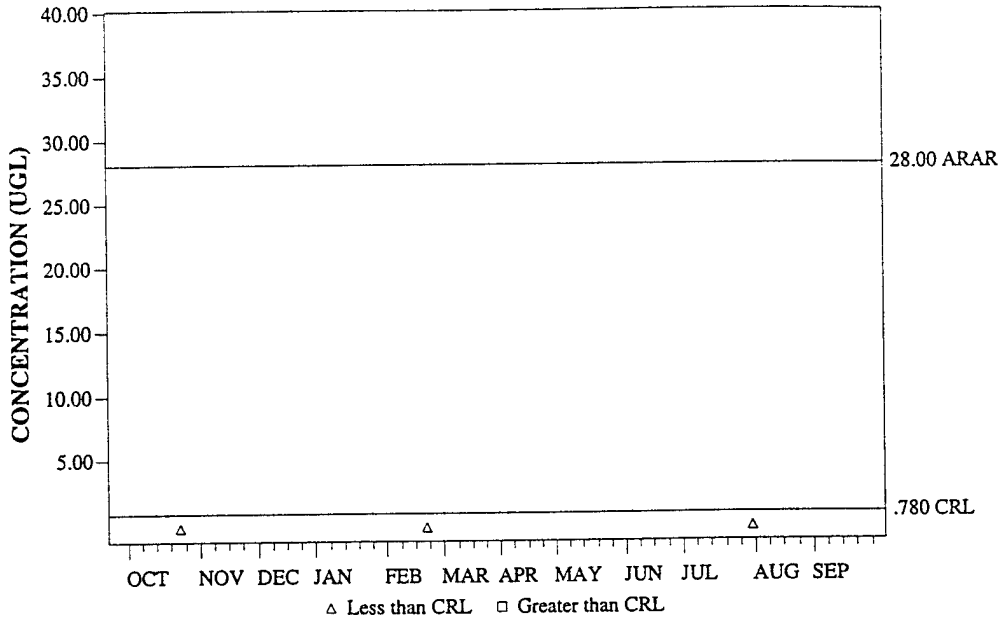
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12/10/93

Figure 31. (Continued)



SOUTH PLANTS PSASEF - 112TCE  
1,1,2-TRICHLOROETHANE  
FY91

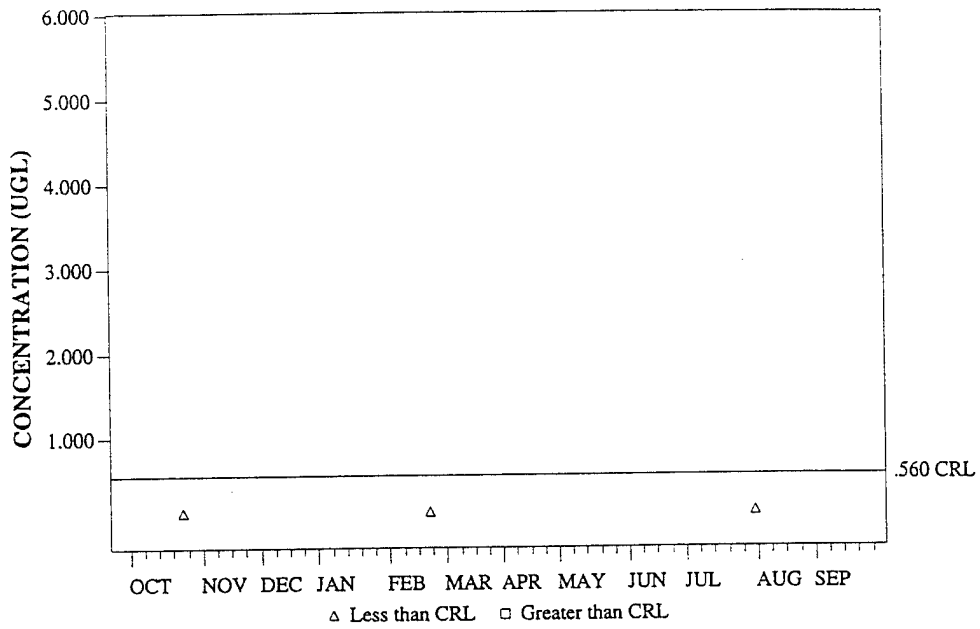


D.P. ASSOCIATES, INC

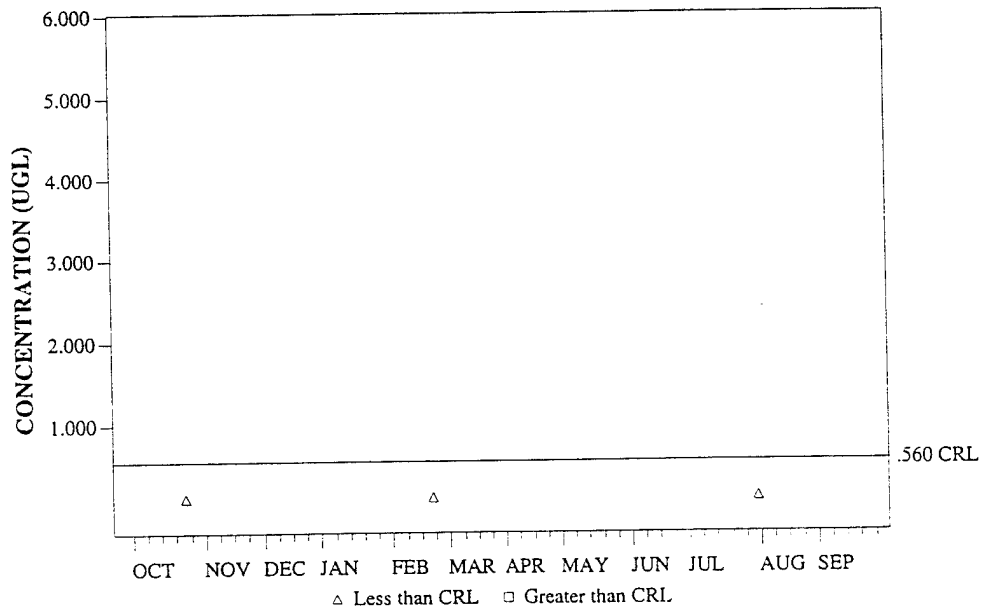
12/10/93

Figure 31. (Concluded)

SOUTH PLANTS PSIFIN - TRCLE  
TRICHLOROETHYLENE  
FY91



SOUTH PLANTS PSAAEF - TRCLE  
TRICHLOROETHYLENE  
FY91

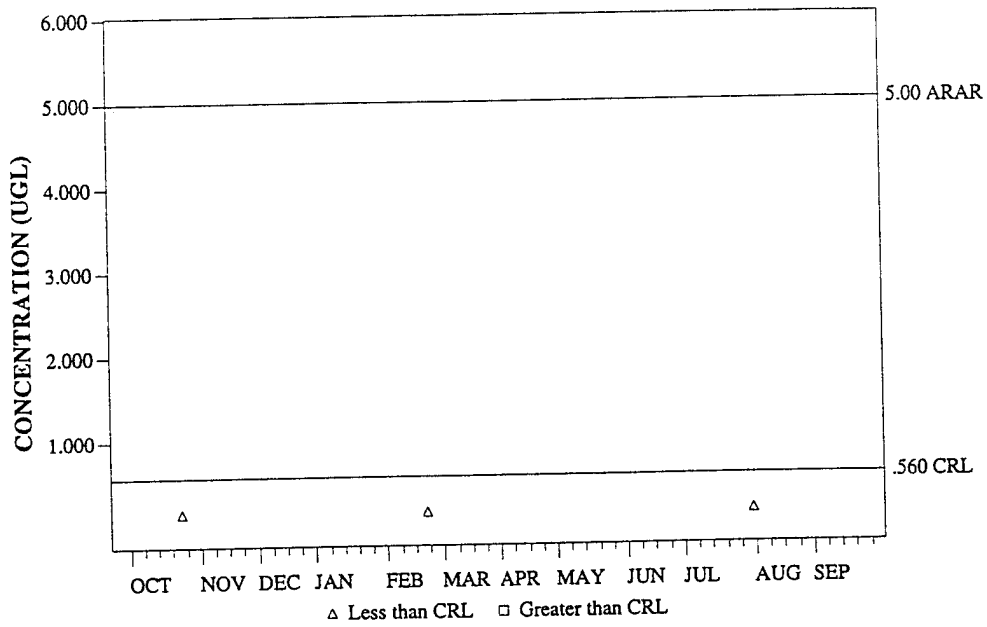


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12/13/93

Figure 32. (Continued)

SOUTH PLANTS PSASEF - TRCLE  
TRICHLOROETHYLENE  
FY91

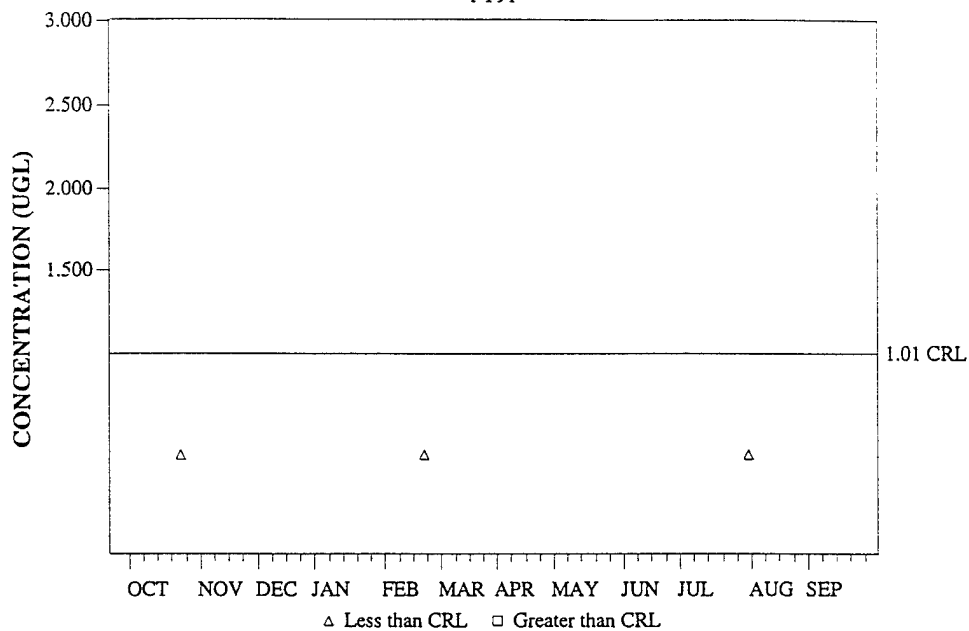


D.P. ASSOCIATES, INC

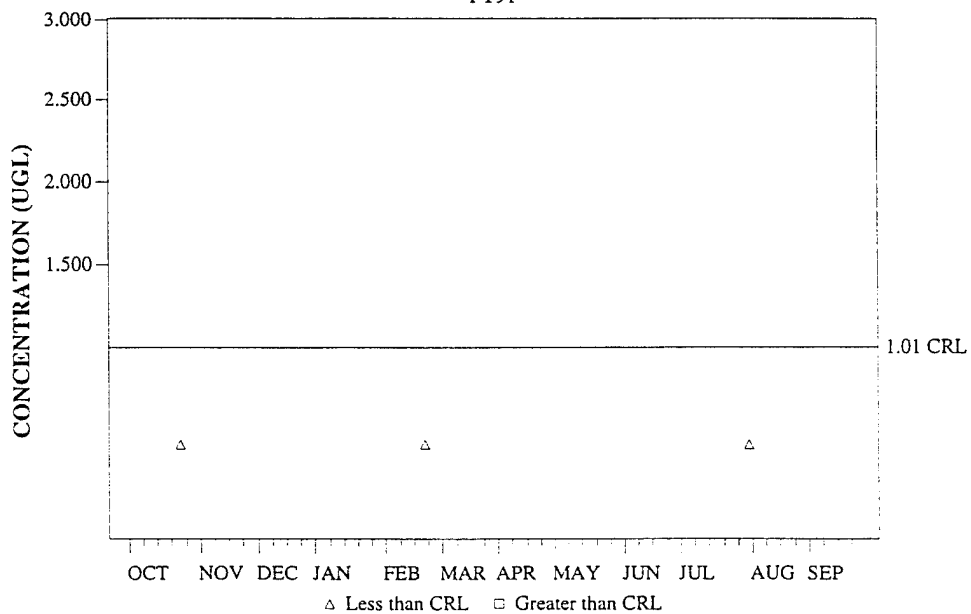
12/13/93

Figure 32. (Concluded)

SOUTH PLANTS PSIFIN - C2H3CL  
CHLOROETHENE/VINYL CHLORIDE  
FY91



SOUTH PLANTS PSAAEF - C2H3CL  
CHLOROETHENE/VINYL CHLORIDE  
FY91

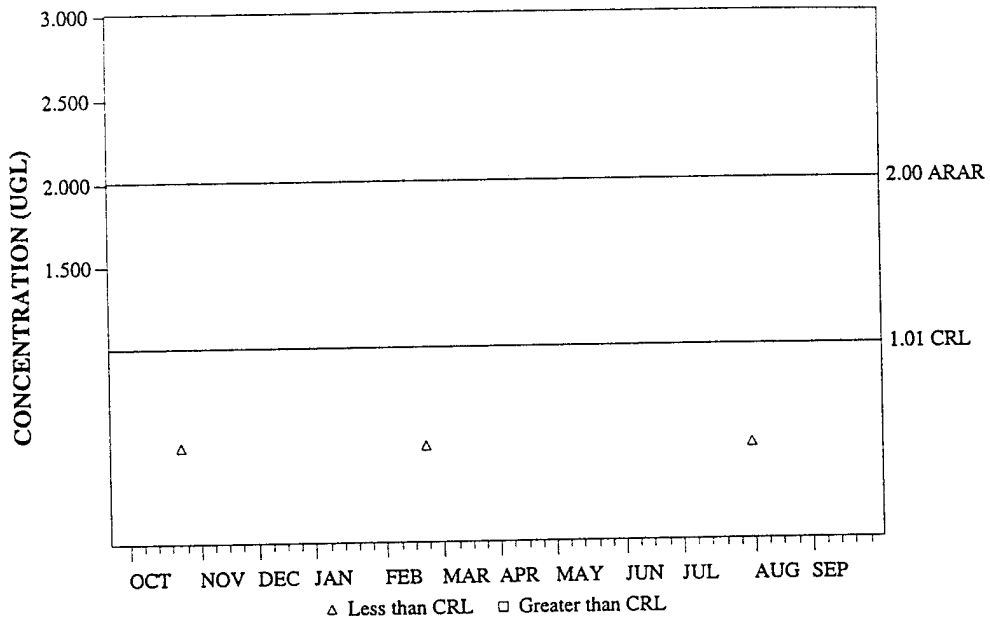


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12/10/93

Figure 33. (Continued)

SOUTH PLANTS PSASEF - C2H3CL  
CHLOROETHENE/VINYL CHLORIDE  
FY91



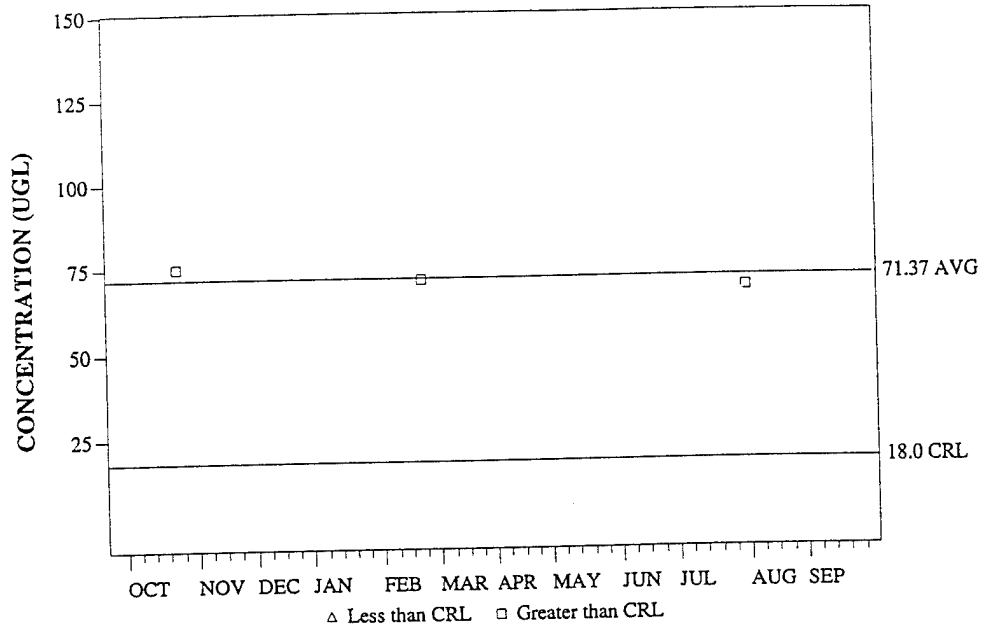
D.P. ASSOCIATES, INC

12/10/93

Figure 33. (Concluded)

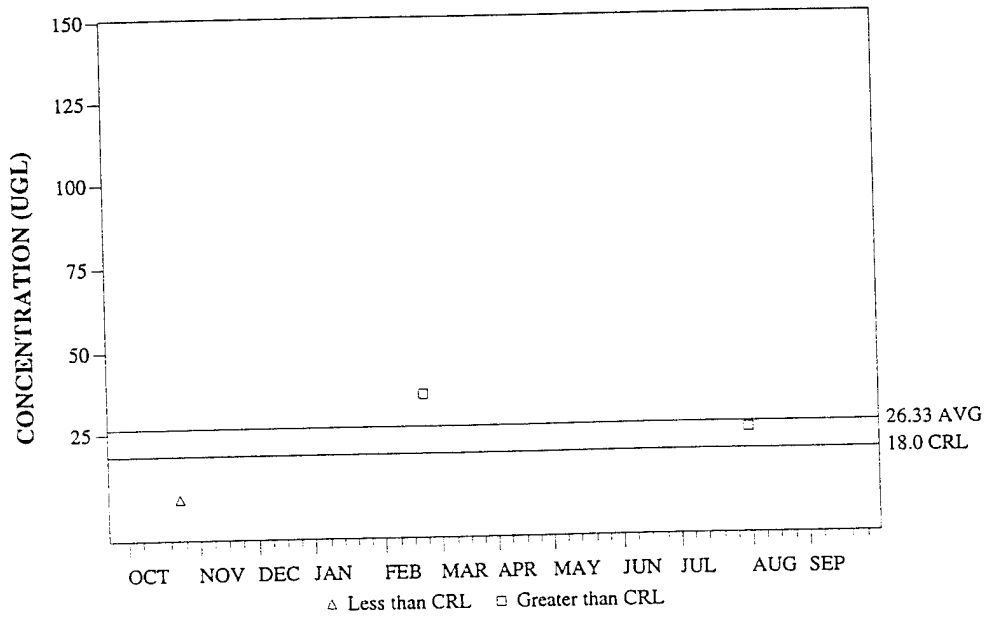
### SOUTH PLANTS PSIFIN - ZN

ZINC  
FY91



### SOUTH PLANTS PSAAEF - ZN

ZINC  
FY91



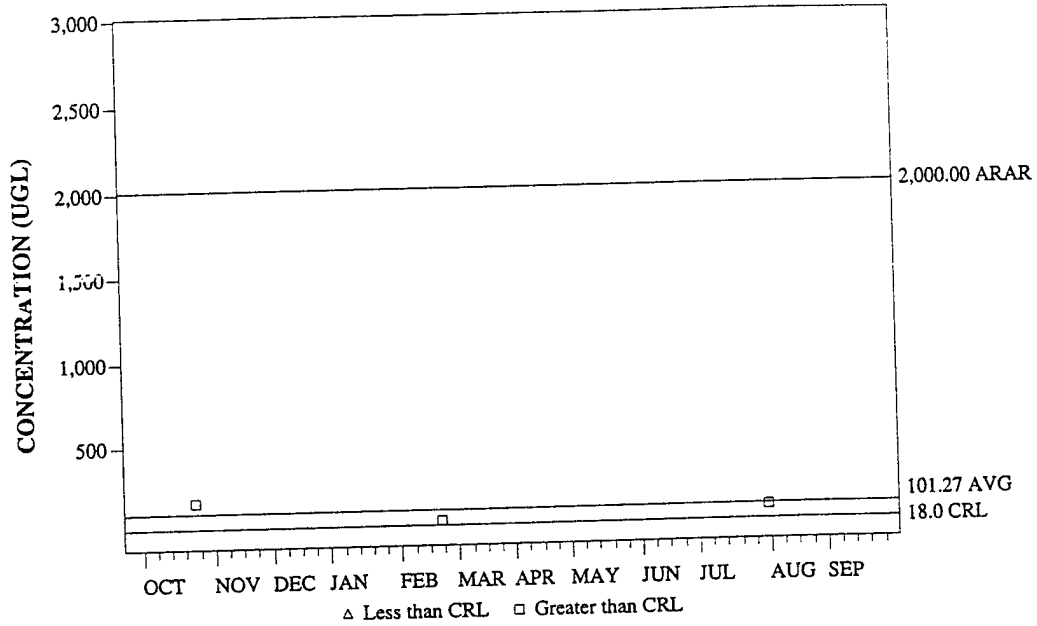
D.P. ASSOCIATES, INC

12/13/93

Figure 34. (Continued)

# SOUTH PLANTS PSASEF - ZN

ZINC  
FY91



D.P. ASSOCIATES, INC

12/13/93

Figure 34. (Concluded)

### TBC Analytes

52. With respect to the TBC analytes, no concentrations of dibromochloropropane, 1,1-dichloroethane, dicyclopentadiene, methylisobutyl ketone, or xylene above their respective CRL's were reported for any of the system influent, carbon/alumina effluent, or system effluent samples for which they were analyzed in FY91. Chloroacetic acid and IMPA were not specifically analyzed for in any samples in FY91. Concentrations of atrazine (up to  $10 \mu\text{g}/\ell$ ), DIMP (up to  $110 \mu\text{g}/\ell$ ), and methylene chloride (up to  $128 \mu\text{g}/\ell$ ) were reported in system influent samples during FY91. No concentrations of atrazine above its CRL were reported for any carbon/alumina effluent or system effluent samples for which it was analyzed. Nine out of fourteen carbon/alumina effluent samples were reported with DIMP concentrations in excess of the CRL with a maximum concentration of  $10.9 \mu\text{g}/\ell$  reported. Two of three system effluent samples were reported with DIMP concentrations in excess of its CRL with a maximum concentration of  $8.05 \mu\text{g}/\ell$ . Five out of fourteen carbon/alumina effluent samples were reported with methylene chloride concentrations in excess of the CRL with a maximum concentration of  $74.4 \mu\text{g}/\ell$  reported. No concentrations of methylene chloride above its CRL were reported for any of the sixteen system effluent samples for which it was analyzed.

### Other Target Analytes

53. With respect to the other target analytes, no concentrations of bicycloheptadiene, p-chlorophenylmethyl, sulfur compounds, dithiane, dimethyldisulfide, isodrin, oxathiane, supona, or vapona above their respective CRL's were reported for any of the system influent, carbon/alumina effluent, or system effluent samples for which they were analyzed in FY91. Fluoroacetic acid and thiodiglycol were not specifically analyzed for in any samples in FY91. Concentrations of malathion above its CRL (up to  $2.97 \mu\text{g}/\ell$ ) were reported in two of the three system influent samples for which it was analyzed in FY91. No concentrations of malathion above its CRL were reported for any carbon/alumina effluent samples. One of three system effluent samples was reported with a malathion concentration in excess of its CRL at  $0.8 \mu\text{g}/\ell$ .

### GC/MS Analyses

54. GC/MS analyses were conducted on system influent, carbon/alumina effluent, and system effluent samples collected during the 1st, 2nd, and 4th quarters of FY91. Many of the analytes included in the standard analytical program were not quantified during the GC/MS analyses since the detection levels associated with the GC/MS analytical method are generally higher than the CRL's established for each analyte under the standard analytical program. A review of the data associated with



1st quarter sample analyses indicates only three analytes were reported with a concentration in excess of their detection levels. Chloroform was detected in the influent sample at a concentration of  $110 \mu\text{g}/\ell$ . The system influent sample for nitroso di-n-propylamine was reported with a concentration of  $9.76 \mu\text{g}/\ell$  which is just slightly above the detection level of  $6.80 \mu\text{g}/\ell$ . Tetrachloroethylene was reported in the influent at  $1.02 \mu\text{g}/\ell$ , slightly above the  $1.00 \mu\text{g}/\ell$  detection limit. During the 2nd quarter, the system influent sample was reported with a bis (2-ethylhexyl) phthalate concentration of  $14.7 \mu\text{g}/\ell$ . Methylene chloride was also reported above its detection level in the influent at  $93.9 \mu\text{g}/\ell$ . Chloroform was also present in the influent during second quarter analysis at  $19.0 \mu\text{g}/\ell$ . Diisopropylmethyl phosphonate was detected at  $42.5 \mu\text{g}/\ell$  in the influent, and was detected at  $24.5 \mu\text{g}/\ell$  in the activated alumina effluent. Diisopropylmethyl phosphonate was not detected in the air-stripper effluent. Tetrachloroethylene was reported at  $8.06 \mu\text{g}/\ell$ , slightly above the  $1.00 \mu\text{g}/\ell$  detection level. During the 4th quarter, the system influent sample was reported with concentrations of chloroform, sulfone, naphthalene, and tetrachloroethylene in excess of their respective detection levels. Of these four, only naphthalene is not analyzed for in the standard analytical program. No other contaminants were reported in any other samples collected during the 4th quarter with concentrations in excess of their respective detection levels. Since none of the non-standard analytes were reported in more than one quarter and since none of them were reported in any effluent samples in concentrations above their detection levels, no changes to the standard analytical program have been made.

#### Summary of CPS Effectiveness

55. Since the chemical-specific ARAR's became applicable to the CPS in FY91, there were specific contaminant concentration criteria against which to compare the effectiveness of the CPS. With respect to organic analytes, aldrin, dieldrin, and endrin concentrations were reported in excess of ARAR standards in some system effluent samples collected in FY91. Aldrin was reported in only one of sixteen effluent samples analyzed for aldrin. The concentration reported was just slightly above the ARAR standard at  $0.11 \mu\text{g}/\ell$ . All other concentrations were reported as being less than the CRL. Four of sixteen system effluent samples were reported with dieldrin and endrin concentrations in excess of their respective ARAR standards. None of the other organics were reported in system effluent samples at concentrations in excess of their respective ARAR standards.

56. With respect to inorganic analytes, arsenic and fluoride concentrations were reported in excess of ARAR standards in some system effluent samples collected

in FY91. Both arsenic and fluoride were reported in one of three effluent samples analyzed for the analytes. For both analytes, the concentrations in excess of the standards were reported for the sample collected on August 7, 1991. As previously noted, however, no wastewater was discharged from the CPS during this time since the plant was being operated in a recycle mode. Wastewater was not discharged until September 1991 when the fluoride concentration was reduced to below 2.0 mg/l based on onsite analysis. As a result, no wastewater with a fluoride concentration in excess of 2.0 mg/l was actually discharged from the CPS. Concentrations of both analytes were comparable in the system influent, carbon/alumina effluent, and system effluent samples. The CPS has no specific process for the removal of arsenic.

57. In summary, the FY91 analytical data generated for the CPS indicated a number of chemical detections above the chemical-specific ARAR standards which had been approved prior to the construction and operation of a new CERCLA Wastewater Treatment System. The CPS had not been designed to operate according to the more stringent criteria of the new proposed system. The CPS criteria was to operate until chemical breakthrough was detected, then the carbon/alumina was changed as required. Hence, there were occasions where detectable levels of aldrin, dieldrin, or endrin were noted in the effluent data. During the 4th Qtr FY91, there were a number of readings in the data showing high fluoride levels in the effluent. There were 3 periods in which the water was recirculated for retreatment until the effluent met ARAR's and was subsequently discharged. With respect to the TBC analytes, the CPS was effective in removing atrazine, DIMP, and methylene chloride. With respect to the other target analytes, the CPS was effective in removing malathion.

#### Contaminant Mass Removal

58. A calculation of the total mass of contaminants removed by the CPS during FY91 was prepared with the results shown in Table 3. The calculation was based on the difference in contaminant concentrations in the system influent and effluent. Average annual system effluent concentrations were subtracted from influent concentrations and multiplied by the flow. Values less than the CRL were set equal to one half the CRL value. The total mass of contaminants removed in FY91 was approximately 0.32 pounds. The contaminant with the largest mass removal was methylene chloride at approximately 0.12 pounds.

Table 3  
South Plants CPS Contaminant Removal, FY91

<u>Containment</u>	<u>Abbreviation</u>	<u>System Total (lbs/year)</u>
Aldrin	ALDRN	0.010
Bis (2-ethylhexyl) phthalate	B2EHP	0.007
Methylene chloride	CH2CL2	0.123
Chloroform	CHCL3	0.058
Combined Organo Sulfurs	CPMSOX	0.004
Diisopropyl methylphosphonate	DIMP	0.086
Dieldrin	DLDRN	0.010
Endrin	ENDRN	0.013
N-Nitrosodi-N-propylamine	NNDNPA	0.004
Tetrachloroethylene	TCLEE	<u>0.008</u>
Total		0.323

### PART III: CONCLUSIONS

59. Based on the evaluation of the available FY91 operations data for the South Plants CERCLA Pretreatment System, the following conclusions have been made:

- a. The CPS operated for approximately twenty-two weeks in FY91, including periods of recirculation.
- b. The CPS treated approximately 189,115 gallons during FY91.
- c. The CPS was only partially successful in meeting the chemical-specific ARAR standards established for the new CERCLA treatment sytem.
- d. The GC/MS analyses conducted on the system samples identified no significant concentrations of contaminants not currently included in the standard analytical program.
- e. The total mass of contaminants removed by the CPS during FY91 was approximately 0.32 pounds.

APPENDIX A: FLOW QUANTITIES AND FLOW  
RATES FOR THE CPS

9/1/93  
DPA

South Plants Weekly Flow Data

10/01/90 - 09/30/91

<u>Sample Date</u>	<u>Meter</u>	<u>Gallons Discharged</u>	<u>AVG GPM</u>
10/07/90		0	0.00
10/14/90	348,410	5,660	0.56
10/21/90	363,960	15,560	1.54
10/28/90	372,050	8,090	0.80
11/04/90	372,050	0	0.00
11/11/90	372,050	0	0.00
11/18/90	372,050	0	0.00
11/25/90	372,050	0	0.00
12/02/90	372,050	0	0.00
12/09/90	372,050	0	0.00
12/16/90	372,050	0	0.00
12/23/90	372,050	0	0.00
12/30/90	372,050	0	0.00
01/06/91	372,050	0	0.00
01/13/91	372,050	0	0.00
01/20/91	376,800	4,750	0.47
01/27/91	390,840	14,040	1.39
02/03/91	402,990	12,150	1.21
02/10/91	419,240	16,250	1.61
02/17/91	432,820	13,580	1.35
02/24/91	445,320	12,500	1.24
03/03/91	458,080	12,760	1.27
03/10/91	471,140	13,060	1.30
03/17/91	477,320	6,180	0.61
03/24/91	477,320	0	0.00
03/31/91	477,320	0	0.00
04/07/91	477,320	0	0.00
04/14/91	477,320	0	0.00
04/21/91	477,320	0	0.00
04/28/91	477,320	0	0.00
05/05/91	477,320	0	0.00
05/12/91	477,320	0	0.00
05/19/91	477,320	0	0.00
05/26/91	477,320	0	0.00
06/02/91	477,320	0	0.00
06/09/91	477,320	0	0.00
06/16/91	477,320	0	0.00
06/23/91	477,320	0	0.00
06/30/91	477,320	0	0.00
07/07/91	477,320	0	0.00
07/14/91	477,320	0	0.00
07/21/91	478,840	0	0.00
07/28/91	486,360	0	0.00
08/04/91	493,670	0	0.00

(Continued)

9/1/93  
DPA

South Plants Weekly Flow Summary  
10/01/90 - 09/30/91 (Concluded)

<u>Sample Date</u>	<u>Meter</u>	<u>Gallons Discharged</u>	<u>AVG GPM</u>
08/11/91	503,910	0	0.00
08/18/91	505,120	0	0.00
08/25/91	507,130	0	0.00
09/01/91	518,650	10,785	1.07
09/08/91	533,540	14,890	1.48
09/15/91	537,040	3,500	0.35
09/22/91	557,780	20,740	2.06
09/29/91	562,400	4,620	0.46
09/30/91	562,400	0	0.00
		<u>189,115</u>	<u>0.36</u>

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Total Discharge to Sanitary Sewer System: 189,115.  
Daily Average (GPM): 0.051.  
Daily Average (GPD): 517.

**APPENDIX B: CPS WATER QUALITY DATA, STATISTICAL  
SUMMARIES, AND GC/MS ANALYSES**



4/13/93  
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South Plants - FY 91 Statistical Summary

Datachem - Site: PSIFIN

Analyte	Tot Samp	Samp >CRL	%> CRL	Mth No.	Certified Report Limit (LT)	UOM	Mean	Low Value	High Value
111TCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
112TCE	3	0	0%	N8	0.780	ug/l	LT CRL	LT CRL	LT CRL
11DCE	3	0	0%	N8	1.700	ug/l	LT CRL	LT CRL	LT CRL
11DCLE	3	0	0%	N8	0.730	ug/l	LT CRL	LT CRL	LT CRL
12DCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
12DCLE	3	0	0%	N8	1.100	ug/l	LT CRL	LT CRL	LT CRL
13DMB	3	0	0%	AV8	1.320	ug/l	LT CRL	LT CRL	LT CRL
14DCLB	3	1	33%	AV8	0.579	ug/l	LT CRL	LT CRL	1.250
ALDRN	2	0	0%	KK8	0.0500	ug/l	LT CRL	LT CRL	LT CRL
ALK	3	3	100%	00	N/A	ug/l	370000	130000	800000
AS	3	3	100%	AX8	2.350	ug/l	494	3.380	1300
ATZ	3	1	33%	UH11	4.030	ug/l	LT CRL	LT CRL	10.00
BCHPD	3	0	0%	P8	5.900	ug/l	LT CRL	LT CRL	LT CRL
BTZ	3	0	0%	AAA8	5.000	ug/l	LT CRL	LT CRL	LT CRL
C2H3CL	3	0	0%	N8	1.010	ug/l	LT CRL	LT CRL	LT CRL
C6H6	3	0	0%	AV8	1.050	ug/l	LT CRL	LT CRL	LT CRL
CA	3	3	100%	SS12	105	ug/l	37907	9920	59200
CCL4	3	0	0%	N8	0.990	ug/l	LT CRL	LT CRL	LT CRL
CD	3	0	0%	SS12	6.780	ug/l	LT CRL	LT CRL	LT CRL
CH2CL2	3	3	100%	N8	7.400	ug/l	86.53	16.60	128
CHCL3	3	3	100%	N8	0.500	ug/l	16.24	9.330	24.90
CL	3	3	100%	TT09	0.278	mg/l	126	57.00	180
CL6CP	2	0	0%	KK8	0.0480	ug/l	LT CRL	LT CRL	LT CRL
CLC6H5	3	0	0%	N8	0.820	ug/l	LT CRL	LT CRL	LT CRL
CLDAN	2	0	0%	KK8	0.0950	ug/l	LT CRL	LT CRL	LT CRL
CPMS	3	0	0%	AAA8	5.690	ug/l	LT CRL	LT CRL	LT CRL
CPMSO	3	0	0%	AAA8	11.50	ug/l	LT CRL	LT CRL	LT CRL
CPMSO2	3	0	0%	AAA8	7.460	ug/l	LT CRL	LT CRL	LT CRL
CR	3	0	0%	SS12	16.80	ug/l	LT CRL	LT CRL	LT CRL
CU	3	2	66%	SS12	18.80	ug/l	36.00	LT CRL	51.80
CYN	3	1	33%	TF34	5.000	ug/l	LT CRL	LT CRL	22.90
DBCP	1	0	0%	AY8	0.195	ug/l	LT CRL	LT CRL	LT CRL
DCPD	3	0	0%	P8	5.000	ug/l	LT CRL	LT CRL	LT CRL
DDVP	3	0	0%	UH11	0.384	ug/l	LT CRL	LT CRL	LT CRL
DIMP	3	3	100%	AT8	0.392	ug/l	70.47	21.40	110
DITH	3	0	0%	AAA8	1.340	ug/l	LT CRL	LT CRL	LT CRL
DLDRN	2	2	100%	KK8	0.0500	ug/l	0.451	0.0289	0.613
DMDS	3	0	0%	AAA8	0.550	ug/l	LT CRL	LT CRL	LT CRL
DMMP	3	3	100%	AT8	0.188	ug/l	1.863	0.356	4.680
ENDRN	1	0	0%	KK8	0.0500	ug/l	LT CRL	LT CRL	LT CRL

(Continued)

LT = Less than the following concentration.  
ug/l = Microgram per liter.  
mg/l = Milligram per liter.

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South Plants - FY 91 Statistical Summary

Datachem - Site: PSIFIN (Concluded)

<u>Analyte</u> <u>Value</u>	<u>Tot</u> <u>Samp</u>	<u>Samp</u> <u>&gt;CRL</u>	<u>%&gt;</u> <u>CRL</u>	<u>Mth No.</u>	<u>Certified</u> <u>Report</u> <u>Limit (LT)</u>	<u>UOM</u>	<u>Mean</u>	<u>Low</u> <u>Value</u>	<u>High</u>
ETC6H5	3	0	0%	AV8	1.370	ug/l	LT CRL	LT CRL	LT CRL
F	3	3	100%	TT09	0.153	mg/l	13.94	1.240	39.00
HG	3	3	100%	CC8	0.1000	ug/l	1.080	0.720	1.730
ISODR	2	0	0%	KK8	0.0510	ug/l	LT CRL	LT CRL	LT CRL
K	3	3	100%	SS12 1240		ug/l	8100	5540	9610
MEC6H5	3	0	0%	AV8	1.470	ug/l	LT CRL	LT CRL	LT CRL
MG	3	3	100%	SS12 135		ug/l	7837	6720	8420
MIBK	3	0	0%	P8	4.900	ug/l	LT CRL	LT CRL	LT CRL
MLTHN	3	2	66%	UH11	0.373	ug/l	1.731	LT CRL	2.970
NA	3	3	100%	SS12 279		ug/l	265333	76000	610000
NIT	3	2	66%	LL8	10.00	ug/l	93.33	LT CRL	150
OXAT	3	0	0%	AAA8	2.380	ug/l	LT CRL	LT CRL	LT CRL
PB	3	3	100%	SD18	4.470	ug/l	28.06	5.940	69.00
PPDDE	2	1	50%	KK8	0.0540	ug/l	LT CRL	LT CRL	0.374
PPDDT	1	0	0%	KK8	0.0490	ug/l	LT CRL	LT CRL	LT CRL
PRTHN	3	0	0%	UH11	0.647	ug/l	LT CRL	LT CRL	LT CRL
SO4	3	3	100%	TT09	0.175	mg/l	153	80.00	230
SUPONA	3	0	0%	UH11	0.787	ug/l	LT CRL	LT CRL	LT CRL
TCLEE	3	3	100%	N8	0.750	ug/l	5.247	1.160	10.00
TRCLE	3	0	0%	N8	0.560	ug/l	LT CRL	LT CRL	LT CRL
XYLEN	3	0	0%	AV8	1.360	ug/l	LT CRL	LT CRL	LT CRL
ZN	3	3	100%	SS12	18.00	ug/l	71.37	68.30	74.60

LT = Less than the following concentration.  
ug/l = Microgram per liter.  
mg/l = Milligram per liter.

4/13/93  
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South Plants - FY 91 Statistical Summary

Datachem - Site: PSAAEF

<u>Analyte Value</u>	<u>Tot Samp</u>	<u>Samp &gt;CRL</u>	<u>% &gt; CRL</u>	<u>Mth No.</u>	<u>Certified Report</u>		<u>Mean</u>	<u>Low Value</u>	<u>High</u>
					<u>Limit (LT)</u>	<u>UOM</u>			
111TCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
112TCE	3	0	0%	N8	0.780	ug/l	LT CRL	LT CRL	LT CRL
11DCE	3	0	0%	N8	1.700	ug/l	LT CRL	LT CRL	LT CRL
11DCLE	3	0	0%	N8	0.730	ug/l	LT CRL	LT CRL	LT CRL
12DCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
12DCLE	3	0	0%	N8	1.100	ug/l	LT CRL	LT CRL	LT CRL
13DMB	3	0	0%	AV8	1.320	ug/l	LT CRL	LT CRL	LT CRL
14DCLB	3	0	0%	AV8	0.579	ug/l	LT CRL	LT CRL	LT CRL
ALDRN	14	0	0%	KK8	0.0500	ug/l	LT CRL	LT CRL	LT CRL
ALK	3	3	100%	00	N/A	ug/l	134667	54000	210000
AS	3	3	100%	AX8	2.350	ug/l	474	10.80	1400
ATZ	3	0	0%	UH11	4.030	ug/l	LT CRL	LT CRL	LT CRL
BCHPD	3	0	0%	P8	5.900	ug/l	LT CRL	LT CRL	LT CRL
BTZ	3	0	0%	AAA8	5.000	ug/l	LT CRL	LT CRL	LT CRL
C2H3CL	3	0	0%	N8	1.010	ug/l	LT CRL	LT CRL	LT CRL
C6H6	3	0	0%	AV8	1.050	ug/l	LT CRL	LT CRL	LT CRL
CA	3	3	100%	SS12	105	ug/l	36633	9900	55300
CCL4	3	0	0%	N8	0.990	ug/l	LT CRL	LT CRL	LT CRL
CD	3	0	0%	SS12	6.780	ug/l	LT CRL	LT CRL	LT CRL
CH2CL2	14	5	35%	N8	7.400	ug/l	LT CRL	LT CRL	74.40
CHCL3	14	2	14%	N8	0.500	ug/l	LT CRL	LTCRL	34.50
CL	3	3	100%	TT09	0.278	mg/l	126	57.00	180
CL6CP	2	0	0%	KK8	0.0480	ug/l	LT CRL	LT CRL	LT CRL
CLC6H5	3	0	0%	N8	0.820	ug/l	LT CRL	LT CRL	LT CRL
CLDAN	2	0	0%	KK8	0.0950	ug/l	LT CRL	LT CRL	LT CRL
CPMS	3	0	0%	AAA8	5.690	ug/l	LT CRL	LT CRL	LT CRL
CPMSO	3	0	0%	AAA8	11.50	ug/l	LT CRL	LT CRL	LT CRL
CPMSO2	3	0	0%	AAA8	7.460	ug/l	LT CRL	LT CRL	LT CRL
CR	3	0	0%	SS12	16.80	ug/l	LT CRL	LT CRL	LT CRL
CU	3	0	0%	SS12	18.80	ug/l	LT CRL	LT CRL	LT CRL
CYN	3	0	0%	TF34	5.000	ug/l	LT CRL	LT CRL	LT CRL
DBCP	1	0	0%	AY8	0.195	ug/l	LT CRL	LT CRL	LT CRL
DCPD	3	0	0%	P8	5.000	ug/l	LT CRL	LT CRL	LT CRL
DDVP	3	0	0%	UH11	0.384	ug/l	LT CRL	LT CRL	LT CRL
DIMP	14	9	64%	AT8	0.392	ug/l	LT CRL	LT CRL	14.40
DITH	3	0	0%	AAA8	1.340	ug/l	LT CRL	LT CRL	LT CRL
DLDRN	14	3	21%	KK8	0.0500	ug/l	LT CRL	LT CRL	0.332
DMDS	3	0	0%	AAA8	0.550	ug/l	LT CRL	LT CRL	LT CRL
DMMP	14	9	64%	AT8	0.188	ug/l	LT CRL	LT CRL	9.315
ENDRN	14	3	21%	KK8	0.0500	ug/l	LT CRL	LT CRL	0.425

(Continued)

LT = Less than the following concentration.  
ug/l = Microgram per liter.  
mg/l = Milligram per liter.

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DPA

South Plants - FY 91 Statistical Summary  
Datachem - Site: PSAAEF (Concluded)

<u>Analyte</u> <u>Value</u>	<u>Tot</u> <u>Samp</u>	<u>Samp</u> <u>&gt;CRL</u>	<u>%&gt;</u> <u>CRL</u>	<u>Mth No.</u>	<u>Certified</u>	<u>UOM</u>	<u>Mean</u>	<u>Low</u> <u>Value</u>	<u>High</u>
					<u>Report</u> <u>Limit (LT)</u>				
ETC6H5	3	0	0%	AV8	1.370	ug/l	LT CRL	LT CRL	LT CRL
F	3	3	100%	TT09	0.153	mg/l	10.92	1.140	30.00
HG	3	2	66%	CC8	0.1000	ug/l	0.173	LT CRL	0.237
ISODR	2	0	0%	KK8	0.0510	ug/l	LT CRL	LT CRL	LT CRL
K	3	3	100%	SS12 1240		ug/l	7950	6100	9080
MEC6H5	3	0	0%	AV8	1.470	ug/l	LT CRL	LT CRL	LT CRL
MG	3	3	100%	SS12 135		ug/l	7807	7090	8500
MIBK	3	0	0%	P8	4.900	ug/l	LT CRL	LT CRL	LT CRL
MLTHN	3	0	0%	UH11	0.373	ug/l	LT CRL	LT CRL	LT CRL
NA	3	3	100%	SS12 279		ug/l	271333	74000	640000
NIT	3	2	66%	LL8	10.00	ug/l	14.53	LT CRL	22.10
OXAT	3	0	0%	AAA8	2.380	ug/l	LT CRL	LT CRL	LT CRL
PB	3	1	33%	SD18	4.470	ug/l	LT CRL	LT CRL	10.40
PPDDE	3	0	0%	KK8	0.0540	ug/l	LT CRL	LT CRL	LT CRL
PPDDT	2	0	0%	KK8	0.0490	ug/l	LT CRL	LT CRL	LT CRL
PRTHN	3	0	0%	UH11	0.647	ug/l	LT CRL	LT CRL	LT CRL
SO4	3	3	100%	TT09	0.175	mg/l	474	72.00	1200
SUPONA	3	0	0%	UH11	0.787	ug/l	LT CRL	LT CRL	LT CRL
TCLLE	3	1	33%	N8	0.750	ug/l	LT CRL	LT CRL	2.560
TRCLE	3	0	0%	N8	0.560	ug/l	LT CRL	LT CRL	LT CRL
XYLEN	3	0	0%	AV8	1.360	ug/l	LT CRL	LT CRL	LT CRL
ZN	3	2	66%	SS12	18.00	ug/l	26.33	LT CRL	36.30

LT = Less than the following concentration.  
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mg/l = Milligram per liter.

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South Plants - FY 91 Statistical Summary

Datachem - Site: PSASEF

<u>Analyte Value</u>	<u>Tot Samp</u>	<u>Samp &gt;CRL</u>	<u>% &gt; CRL</u>	<u>Mth No.</u>	<u>Certified Report</u>		<u>Mean</u>	<u>Low Value</u>	<u>High</u>
					<u>Limit (LT)</u>	<u>UOM</u>			
111TCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
112TCE	3	0	0%	N8	0.780	ug/l	LT CRL	LT CRL	LT CRL
11DCE	3	0	0%	N8	1.700	ug/l	LT CRL	LT CRL	LT CRL
11DCLE	3	0	0%	N8	0.730	ug/l	LT CRL	LT CRL	LT CRL
12DCE	3	0	0%	N8	0.760	ug/l	LT CRL	LT CRL	LT CRL
12DCLE	3	0	0%	N8	1.100	ug/l	LT CRL	LT CRL	LT CRL
13DMB	3	0	0%	AV8	1.320	ug/l	LT CRL	LT CRL	LT CRL
14DCLB	3	1	33%	AV8	0.579	ug/l	LT CRL	LT CRL	39.10
ALDRN	16	1	6%	KK8	0.0500	ug/l	LT CRL	LT CRL	0.107
ALK	3	3	100%	00	N/A	ug/l	147000	120000	170000
AS	3	3	100%	AX8	2.350	ug/l	574	8.330	1700
ATZ	3	0	0%	UH11	4.030	ug/l	LT CRL	LT CRL	LT CRL
BCHPD	3	0	0%	P8	5.900	ug/l	LT CRL	LT CRL	LT CRL
BTZ	3	0	0%	AAA8	5.000	ug/l	LT CRL	LT CRL	LT CRL
C2H3CL	3	0	0%	N8	1.010	ug/l	LT CRL	LT CRL	LT CRL
C6H6	3	0	0%	AV8	1.050	ug/l	LT CRL	LT CRL	LT CRL
CA	3	3	100%	SS12	105	ug/l	37333	10400	57700
CCL4	3	0	0%	N8	0.990	ug/l	LT CRL	LT CRL	LT CRL
CD	3	0	0%	SS12	6.780	ug/l	LT CRL	LT CRL	LT CRL
CH2CL2	16	0	0%	N8	7.400	ug/l	LT CRL	LT CRL	LT CRL
CHCL3	16	1	6%	N8	0.500	ug/l	LT CRL	LT CRL	0.718
CL	3	3	100%	TT09	0.278	mg/l	149	68.00	240
CL6CP	2	0	0%	KK8	0.0480	ug/l	LT CRL	LT CRL	LT CRL
CLC6H5	3	0	0%	N8	0.820	ug/l	LT CRL	LT CRL	LT CRL
CLDAN	2	0	0%	KK8	0.0950	ug/l	LT CRL	LT CRL	LT CRL
CPMS	3	0	0%	AAA8	5.690	ug/l	LT CRL	LT CRL	LT CRL
CPMSO	3	0	0%	AAA8	11.50	ug/l	LT CRL	LT CRL	LT CRL
CPMSO2	3	0	0%	AAA8	7.460	ug/l	LT CRL	LT CRL	LT CRL
CR	3	0	0%	SS12	16.80	ug/l	LT CRL	LT CRL	LT CRL
CU	3	2	66%	SS12	18.80	ug/l	106	LT CRL	197
CYN	3	0	0%	TF34	5.000	ug/l	LT CRL	LT CRL	LT CRL
DBCP	1	0	0%	AY8	0.195	ug/l	LT CRL	LT CRL	LT CRL
DCPD	3	0	0%	P8	5.000	ug/l	LT CRL	LT CRL	LT CRL
DDVP	3	0	0%	UH11	0.384	ug/l	LT CRL	LT CRL	LT CRL
DIMP	3	3	100%	AT8	0.392	ug/l	3.306	0.448	8.050
DITH	3	0	0%	AAA8	1.340	ug/l	LT CRL	LT CRL	LT CRL
DLDRN	16	7	43%	KK8	0.0500	ug/l	LT CRL	LT CRL	0.820
DMDS	3	0	0%	AAA8	0.550	ug/l	LT CRL	LT CRL	LT CRL
DMMP	3	2	66%	AT8	0.188	ug/l	2.341	LT CRL	6.080
ENDRN	16	7	43%	KK8	0.0500	ug/l	LT CRL	LT CRL	2.700

(Continued)

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South Plants - FY 91 Statistical Summary  
Datachem - Site: PSASEF (Concluded)

<u>Analyte Value</u>	<u>Tot Samp</u>	<u>Samp &gt;CRL</u>	<u>% &gt; CRL</u>	<u>Mth No.</u>	<u>Certified Report Limit (LT)</u>	<u>UOM</u>	<u>Mean</u>	<u>Low Value</u>	<u>High</u>
ETC6H5	3	0	0%	AV8	1.370	ug/l	LT CRL	LT CRL	LT CRL
F	3	3	100%		0.153	mg/l	15.25	1.130	43.00
HG	3	2	66%	CC8	0.1000	ug/l	0.303	LT CRL	0.563
ISODR	2	0	0%	KK8	0.0510	ug/l	LT CRL	LT CRL	LT CRL
K	3	3	100%	SS12 1240		ug/l	8860	5880	10600
MEC6H5	3	0	0%	AV8	1.470	ug/l	LT CRL	LT CRL	LT CRL
MG	3	3	100%	SS12 135		ug/l	8697	8120	9390
MIBK	3	0	0%	P8	4.900	ug/l	LT CRL	LT CRL	LT CRL
MLTHN	3	1	33%	UH11	0.373	ug/l	LT CRL	LT CRL	0.798
NA	3	3	100%	SS12 279		ug/l	386667	80000	970000
NIT	3	3	100%	LL8	10.00	ug/l	1840	120	4000
OXAT	3	0	0%	AAA8	2.380	ug/l	LT CRL	LT CRL	LT CRL
PB	3	1	33%	SD18	4.470	ug/l	LT CRL	LT CRL	5.330
PPDDE	3	0	0%	KK8	0.0540	ug/l	LT CRL	LT CRL	LT CRL
PPDDT	2	0	0%	KK8	0.0490	ug/l	LT CRL	LT CRL	LT CRL
PRTHN	3	0	0%	UH11	0.647	ug/l	LT CRL	LT CRL	LT CRL
SO4	3	3	100%	TT09	0.175	mg/l	643	79.00	1700
SUPONA	3	0	0%	UH11	0.787	ug/l	LT CRL	LT CRL	LT CRL
TCLLE	3	0	0%	N8	0.750	ug/l	LT CRL	LT CRL	LT CRL
TRCLE	3	0	0%	N8	0.560	ug/l	LT CRL	LT CRL	LT CRL
XYLEN	3	0	0%	AV8	1.360	ug/l	LT CRL	LT CRL	LT CRL
ZN	3	3	100%	SS12	18.00	ug/l	101	42.70	165

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South Plants - PSIFIN for FY 91

<u>Sample Date</u>	<u>Org</u>	<u>111TCE ug/l</u>	<u>112TCE ug/l</u>	<u>11DCE ug/l</u>	<u>11DCLE ug/l</u>	<u>12DCE ug/l</u>
10/31/90	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
08/07/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
		<u>12DCLE ug/l</u>	<u>13DMB ug/l</u>	<u>14DCLB ug/l</u>	<u>ALDRN ug/l</u>	<u>ALK ug/l</u>
10/31/90	UB	LT 1.100	LT 1.320	LT 0.579	--	180000.-
000						
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.100	LT 1.320	LT 0.579	LT 0.050	130000.-
000						
08/07/91	UB	LT 1.100	LT 1.320	1.250	LT 0.050	
800000.000						
		<u>AS ug/l</u>	<u>ATZ ug/l</u>	<u>BCHPD ug/l</u>	<u>BTZ ug/l</u>	<u>C2H3CL ug/l</u>
10/31/90	UB	180.000	LT 4.030	LT 5.900	LT 5.000	LT 1.010
02/20/91	UB	--	--	--	--	--
02/27/91	UB	3.380	LT 4.030	LT 5.900	LT 5.000	LT 1.010
08/07/91	UB	1300.000	10.000	LT 5.900	LT 5.000	LT 1.010
		<u>C6H6 ug/l</u>	<u>CA ug/l</u>	<u>CCL4 ug/l</u>	<u>CD ug/l</u>	<u>CH2CL2 ug/l</u>
10/31/90	UB	LT 1.050	59200.000	LT 0.990	LT 6.780	115.000
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.050	44600.000	LT 0.990	LT 6.780	128.000
08/07/91	UB	LT 1.050	9920.000	LT 0.990	LT 6.780	16.600
		<u>CHCL3 ug/l</u>	<u>CL mg/l</u>	<u>CL6CP ug/l</u>	<u>CLC6H5 ug/l</u>	<u>CLDAN ug/l</u>
10/31/90	UB	9.330	140.000	--	LT 0.820	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	24.900	57.000	LT 0.048	LT 0.820	LT 0.095
08/07/91	UB	14.500	180.000	LT 0.048	LT 0.820	LT 0.095

(Continued)

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South Plants - PSIFIN for FY 91 (Continued)

<u>Sample Date</u>	<u>Org</u>	<u>CPMS ug/l</u>	<u>CPMSO ug/l</u>	<u>CPMSO2 ug/l</u>	<u>CR ug/l</u>	<u>CU ug/l</u>
10/31/90	UB	LT 5.690	LT 11.500	LT 7.460	LT 16.800	51.800
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 5.690	LT 11.500	LT 7.460	LT 16.800	LT 18.800
08/07/91	UB	LT 5.690	LT 11.500	LT 7.460	LT 16.800	37.400
		<u>CYN ug/l</u>	<u>DBCP ug/l</u>	<u>DCPD ug/l</u>	<u>DDVP ug/l</u>	<u>DIMP ug/l</u>
10/31/90	UB	LT 5.000	--	LT 5.000	LT 0.384	110.000
02/20/91	UB	LT 5.000	--	--	--	--
02/27/91	UB	--	--	LT 5.000	LT 0.384	21.400
08/07/91	UB	22.900	LT 0.195	LT 5.000	LT 0.384	80.000
		<u>DITH ug/l</u>	<u>DLDRN ug/l</u>	<u>DMDS ug/l</u>	<u>DMMP ug/l</u>	<u>ENDRN ug/l</u>
10/31/90	UB	LT 1.340	--	LT 0.550	4.680	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.340	0.289	LT 0.550	0.554	LT 0.050
08/07/91	UB	LT 1.340	0.613	LT 0.550	0.356	--
		<u>ETC6H5 ug/l</u>	<u>F mg/l</u>	<u>HG ug/l</u>	<u>ISODR ug/l</u>	<u>K ug/l</u>
10/31/90	UB	LT 1.370	1.570	0.790	--	9610.000
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.370	1.240	1.730	LT 0.051	5540.000
08/07/91	UB	LT 1.370	39.000	0.720	LT 0.051	9150.000
		<u>MEC6H5 ug/l</u>	<u>MG ug/l</u>	<u>MIBK ug/l</u>	<u>MLTHN ug/l</u>	<u>NA ug/l</u>
10/31/90	UB	LT 1.470	8370.000	LT 4.900	LT 0.373	110000.000
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.470	8420.000	LT 4.900	1.850	76000.000
08/07/91	UB	LT 1.470	6720.000	LT 4.900	2.970	610000.000

(Continued)

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South Plants - PSIFIN for FY 91 (Concluded)

<u>Sample Date</u>	<u>Org</u>	<u>NIT</u> <u>ug/l</u>	<u>OXAT</u> <u>ug/l</u>	<u>PB</u> <u>ug/l</u>	<u>PPDDE</u> <u>ug/l</u>	<u>PPDDT</u> <u>ug/l</u>
10/31/90	UB	120.000	LT 2.380	69.000	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	150.000	LT 2.380	5.940	LT 0.054	LT 0.049
08/07/91	UB	LT 10.000	LT 2.380	9.240	0.374	--
		<u>PRTHN</u> <u>ug/l</u>	<u>SO4</u> <u>mg/l</u>	<u>SUPONA</u> <u>ug/l</u>	<u>TCLEE</u> <u>ug/l</u>	<u>TRCLE</u> <u>ug/l</u>
10/31/90	UB	LT 0.647	150.000	LT 0.787	1.160	LT 0.560
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.647	80.000	LT 0.787	10.000	LT 0.560
08/07/91	UB	LT 0.647	230.000	LT 0.787	4.580	LT 0.560
		<u>XYLEN</u> <u>ug/l</u>	<u>ZN</u> <u>ug/l</u>			
10/31/90	UB	LT 1.360	74.600			
02/20/91	UB	--	--			
02/27/91	UB	LT 1.360	71.200			
08/07/91	UB	LT 1.360	68.300			

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South Plants - PSAAEF for FY 91

<u>Sample Date</u>	<u>Org</u>	<u>111TCE</u> <u>ug/l</u>	<u>112TCE</u> <u>ug/l</u>	<u>11DCE</u> <u>ug/l</u>	<u>11DCLE</u> <u>ug/l</u>	<u>12DCE</u> <u>ug/l</u>
10/31/90	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
08/07/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
		<u>12DCLE</u> <u>ug/l</u>	<u>13DMB</u> <u>ug/l</u>	<u>14DCLB</u> <u>ug/l</u>	<u>ALK</u> <u>ug/l</u>	<u>AS</u> <u>ug/l</u>
10/31/90	UB	LT 1.100	LT 1.320	LT 0.579	210000.000	12.400
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.100	LT 1.320	LT 0.579	140000.000	10.800
08/07/91	UB	LT 1.100	LT 1.320	LT 0.579	54000.000	1400.000
		<u>ATZ</u> <u>ug/l</u>	<u>BCHPD</u> <u>ug/l</u>	<u>BTZ</u> <u>ug/l</u>	<u>C2H3CL</u> <u>ug/l</u>	<u>C6H6</u> <u>ug/l</u>
10/31/90	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
08/07/91	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
		<u>CA</u> <u>ug/l</u>	<u>CVL4</u> <u>ug/l</u>	<u>CD</u> <u>ug/l</u>	<u>CL</u> <u>mg/l</u>	<u>CL6CP</u> <u>ug/l</u>
10/31/90	UB	55300.000	LT 0.990	LT 6.780	140.000	--
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	44700.000	LT 0.990	LT 6.780	57.000	LT 0.048
08/07/91	UB	9900.000	LT 0.990	LT 6.780	180.000	LT 0.048
		<u>CLC6H5</u> <u>ug/l</u>	<u>CLDAN</u> <u>ug/l</u>	<u>CPMS</u> <u>ug/l</u>	<u>CPMSO</u> <u>ug/l</u>	<u>CPMSO2</u> <u>ug/l</u>
10/31/90	UB	LT 0.820	--	LT 5.690	LT 11.500	LT 7.460
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.820	LT 0.095	LT 5.690	LT 11.500	LT 7.460
08/07/91	UB	LT 0.820	LT 0.095	LT 5.690	LT 11.500	LT 7.460

(Continued)

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 -- = Analysis was not performed.  
 mg/l = Milligram per liter.

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South Plants - PSAAEF for FY 91 (Continued)

Sample Date	Org	CR ug/l	CU ug/l	CYN ug/l	DCBP ug/l	DCPD ug/l
10/31/90	UB	LT 16.800	LT 18.800	LT 5.000	--	LT 5.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	LT 5.000	--	--
02/27/91	UB	LT 16.800	LT 18.800	--	--	LT 5.000
08/07/91	UB	LT 16.800	LT 18.800	LT 5.000	LT 0.195	LT 5.000
		<u>DDVP</u> ug/l	<u>DITH</u> ug/l	<u>DMDS</u> ug/l	<u>ETC6H5</u> ug/l	<u>F</u> mg/l
10/31/90	UB	LT 0.384	LT 1.340	LT 0.550	LT 1.370	1.620
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.384	LT 1.340	LT 0.550	LT 1.370	1.140
08/07/91	UB	LT 0.384	LT 1.340	LT 0.550	LT 1.370	30.000
		<u>HG</u> ug/l	<u>ISODR</u> ug/l	<u>K</u> ug/l	<u>MEC6H5</u> ug/l	<u>MG</u> ug/l
10/31/90	UB	LT 0.100	--	9080.000	LT 1.470	7830.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	0.183	LT 0.051	6100.000	LT 1.470	8500.000
08/07/91	UB	0.237	LT 0.051	8670.000	LT 1.470	7090.000
		<u>MIBK</u> ug/l	<u>MLTHN</u> ug/l	<u>NA</u> ug/l	<u>NIT</u> ug/l	<u>OXAT</u> ug/l
10/31/90	UB	LT 4.900	LT 0.373	100000.000	22.100	LT 2.380
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 4.900	LT 0.373	74000.000	LT 10.000	LT 2.380
08/07/91	UB	TL 4.900	LT 0.373	640000.000	11.500	LT 2.380
		<u>PB</u> ug/l	<u>PPDE</u> ug/l	<u>PPDDT</u> ug/l	<u>PRTN</u> ug/l	<u>SO4</u> mg/l
10/31/90	UB	10.400	--	--	LT 0.647	150.000
01/30/91	UB	--	LT 0.054	LT 0.049	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 4.470	LT 0.054	LT 0.049	LT 0.647	72.000
08/07/91	UB	LT 4.470	LT 0.054	--	LT 0.647	1200.000

(Continued)

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 mg/l = Milligram per liter.

6/25/93  
DPA

South Plants - PSAAEF for FY 91 (Concluded)

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<u>Sample Date</u>	<u>Org</u>	<u>SUPONA ug/l</u>	<u>TCLEE ug/l</u>	<u>TRCLE ug/l</u>	<u>XYLEN ug/l</u>	<u>ZN ug/l</u>
10/31/90	UB	LT 0.787	LT 0.750	LT 0.560	LT 1.360	LT 18.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.787	2.560	LT 0.560	LT 1.360	36.300
08/07/91	UB	LT 0.787	LT 0.750	LT 0.560	LT 1.360	24.700

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DPA

South Plants - PSAAEF for FY 91

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<u>Sample Date</u>	<u>Org</u>	<u>ALDRN ug/l</u>	<u>CH2CL2 ug/l</u>	<u>CHCL3 ug/l</u>	<u>DIMP ug/l</u>
10/03/90	UB	--	--	--	2.220
10/10/90	UB	LT 0.050	LT 7.400	LT 0.500	3.060
10/17/90	UB	LT 0.050	LT 7.400	LT 0.500	--
10/24/90	UB	LT 0.050	LT 7.400	LT 0.500	3.305
10/31/90	UB	LT 0.050	LT 7.400	LT 0.500	1.237
01/30/91	UB	LT 0.050	14.800	LT 0.500	2.300
02/13/91	UB	LT 0.050	21.300	LT 0.500	5.530
02/27/91	UB	LT 0.050	47.600	6.470	14.400
03/06/91	UB	LT 0.050	74.400	34.500	10.900
06/12/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.392
06/26/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.392
08/07/91	UB	LT 0.050	25.050	LT 0.500	LT 0.392
08/28/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.392
09/04/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.392
09/25/91	UB	LT 0.050	LT 7.400	LT 0.500	3.890

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6/25/93  
DPA

South Plants - PSAAEF for FY 91

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<u>Sample Date</u>	<u>Org</u>	<u>DLDRN ug/l</u>	<u>DMMP ug/l</u>	<u>ENDRN ug/l</u>
10/03/90	UB	--	9.300	--
10/10/90	UB	LT 0.050	6.860	LT 0.050
10/17/90	UB	LT 0.050	--	LT 0.050
10/24/90	UB	0.332	9.315	0.054
10/31/90	UB	LT 0.050	4.445	LT 0.050
01/30/91	UB	LT 0.050	1.080	LT 0.050
02/13/91	UB	LT 0.050	1.540	LT 0.050
02/27/91	UB	0.111	1.177	LT 0.050
03/06/91	UB	0.173	0.665	LT 0.050
06/12/91	UB	LT 0.050	LT 0.188	0.425
06/26/91	UB	LT 0.050	LT 0.188	LT 0.050
08/07/91	UB	LT 0.050	LT 0.188	0.132
08/28/91	UB	LT 0.050	LT 0.188	LT 0.050
09/04/91	UB	LT 0.050	LT 0.188	LT 0.050
09/25/91	UB	LT 0.050	3.820	LT 0.050

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6/25/93  
DPA

South Plants - PSASEF for FY 91

Sample Date	Org	111TCE ug/l	112TCE ug/l	11DCE ug/l	11DCLE ug/l	12DCE ug/l
10/31/90	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
01/30/91	UB	--	--	--	--	--
02/20/90	UB	--	--	--	--	--
02/27/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
08/07/91	UB	LT 0.760	LT 0.780	LT 1.700	LT 0.730	LT 0.760
		12DCLE ug/l	13DMB ug/l	14DCLB ug/l	ALK ug/l	AS ug/l
10/31/90	UB	LT 1.100	LT 1.320	39.100	151000.000	12.500
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.100	LT 1.320	LT 0.579	120000.000	8.330
08/07/91	UB	LT 1.100	LT 1.320	LT 0.579	170000.000	1700.000
		ATZ ug/l	BCHPD ug/l	BTZ ug/l	C2H3CL ug/l	C6H6 ug/l
10/31/90	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
08/07/91	UB	LT 4.030	LT 5.900	LT 5.000	LT 1.010	LT 1.050
		CA ug/l	CCL4 ug/l	CD ug/l	CL mg/l	CL6CP ug/l
10/31/90	UB	57700.000	LT 0.990	LT 6.780	140.000	--
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	43900.000	LT 0.990	LT 6.780	68.000	LT 0.048
08/07/91	UB	10400.000	LT 0.990	LT 6.780	240.000	LT 0.048
		CLC6H5 ug/l	CLDAN ug/l	CPMS ug/l	CPMSO ug/l	CPMSO2 ug/l
10/31/90	UB	LT 0.820	--	LT 5.690	LT 11.500	LT 7.460
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.820	LT 0.095	LT 5.690	LT 11.500	LT 7.460
08/07/91	UB	LT 0.820	LT 0.095	LT 5.690	LT 11.500	LT 7.460

(Continued)

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6/25/93  
DPA

South Plants - PSASEF for FY 91

<u>Sample Date</u>	<u>Org</u>	<u>CR</u> <u>ug/l</u>	<u>CU</u> <u>ug/l</u>	<u>CYN</u> <u>ug/l</u>	<u>DBCP</u> <u>ug/l</u>	<u>DCPD</u> <u>ug/l</u>
10/31/90	UB	LT 16.800	197.000	LT 5.000	--	LT 5.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	LT 5.000	--	--
02/27/91	UB	LT 16.800	LT 18.800	--	--	LT 5.000
08/07/91	UB	LT 16.800	102.000	LT 5.000	LT 0.195	LT 5.000
		<u>DDVP</u> <u>ug/l</u>	<u>DIMP</u> <u>ug/l</u>	<u>DITH</u> <u>ug/l</u>	<u>DMDS</u> <u>ug/l</u>	<u>DMMP</u> <u>ug/l</u>
10/31/90	UB	LT 0.384	1.420	LT 1.340	LT 0.550	6.080
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.384	8.050	LT 1.340	LT 0.550	0.756
08/07/91	UB	LT 0.384	0.448	LT 1.340	LT 0.550	LT 0.188
		<u>ETC6H5</u> <u>ug/l</u>	<u>F</u> <u>mg/l</u>	<u>HG</u> <u>ug/l</u>	<u>ISODR</u> <u>ug/l</u>	<u>K</u> <u>ug/l</u>
10/31/90	UB	LT 1.370	1.610	LT 0.100	--	10100.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.370	1.130	0.247	LT 0.051	5880.000
08/07/91	UB	LT 1.370	43.000	0.563	LT 0.051	10600.000
		<u>MEC6H5</u> <u>ug/l</u>	<u>MG</u> <u>ug/l</u>	<u>MIBK</u> <u>ug/l</u>	<u>MLTHN</u> <u>ug/l</u>	<u>NA</u> <u>ug/l</u>
10/31/90	UB	LT 1.470	8120.000	LT 4.900	LT 0.373	110000.000
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 1.470	8580.000	LT 4.900	0.798	80000.000
08/07/91	UB	LT 1.470	9390.000	LT 4.900	LT 0.373	970000.000
		<u>NIT</u> <u>ug/l</u>	<u>OXAT</u> <u>ug/l</u>	<u>PB</u> <u>ug/l</u>	<u>PDDE</u> <u>ug/l</u>	<u>PPDDT</u> <u>ug/l</u>
10/31/90	UB	4000.000	LT 2.380	5.330	--	--
01/30/91	UB	--	--	--	LT 0.054	LT 0.049
02/20/91	UB	--	--	--	--	--
02/27/91	UB	120.000	LT 2.380	LT 4.470	LT 0.054	LT 0.049
08/07/91	UB	1400.000	LT 2.380	LT 4.470	LT 0.054	--

(Continued)

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DPA

South Plants - PSASEF for FY 91 (Concluded)

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<u>Sample Date</u>	<u>Org</u>	<u>PRTHN</u> <u>ug/l</u>	<u>SO4</u> <u>mg/l</u>	<u>SUPONA</u> <u>ug/l</u>	<u>TCLEE</u> <u>ug/l</u>	<u>TRCLE</u> <u>ug/l</u>
10/31/90	UB	LT 0.647	150.000	LT 0.787	LT 0.750	LT 0.560
01/30/91	UB	--	--	--	--	--
02/20/91	UB	--	--	--	--	--
02/27/91	UB	LT 0.647	79.000	LT 0.787	LT 0.750	LT 0.560
08/07/91	UB	LT 0.647	1700.000	LT 0.787	LT 0.750	LT 0.560
		<u>XYLEN</u> <u>ug/l</u>	<u>ZN</u> <u>ug/l</u>			
10/31/90	UB	LT 1.360	165.000			
01/30/91	UB	--	--			
02/20/91	UB	--	--			
02/27/91	UB	LT 1.360	42.700			
08/07/91	UB	LT 1.360	96.100			

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6/25/93  
DPA

South Plants - PSASEF for FY 91

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<u>Sample Date</u>	<u>Org</u>	<u>ALDRN ug/l</u>	<u>CH2CL2 ug/l</u>	<u>CHCL3 ug/l</u>	<u>DLDRN ug/l</u>
10/10/90	UB	0.107	LT 7.400	LT 0.500	.058
10/17/90	UB	LT 0.050	LT 7.400	LT 0.500	LT .050
10/24/90	UB	LT 0.050	LT 7.400	LT 0.500	LT .050
10/31/90	UB	LT 0.050	LT 7.400	LT 0.500	LT .050
01/30/91	UB	LT 0.050	LT 7.400	LT 0.500	LT .050
02/06/91	UB	LT 0.050	LT 7.400	LT 0.500	.069
02/13/91	UB	LT 0.050	LT 7.400	LT 0.500	.483
02/20/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.050
02/27/91	UB	LT 0.050	LT 7.400	0.718	0.103
03/06/91	UB	LT 0.050	LT 7.400	LT 0.500	0.191
03/13/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.050
06/26/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.050
08/07/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.050
08/28/91	UB	LT 0.050	LT 7.400	LT 0.500	0.243
09/04/91	UB	LT 0.050	LT 7.400	LT 0.500	LT 0.050
09/25/91	UB	LT 0.050	LT 7.400	LT 0.500	0.820

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DPA

South Plants - PSASEF for FY 91

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<u>Sample Date</u>	<u>Org</u>	<u>ENDRN ug/l</u>
10/10/90	UB	0.520
10/17/90	UB	LT 0.050
10/24/90	UB	0.075
10/31/90	UB	LT 0.050
01/30/91	UB	LT 0.050
02/06/91	UB	LT 0.050
02/13/91	UB	LT 0.050
02/20/91	UB	0.089
02/27/91	UB	0.060
03/06/91	UB	0.970
03/13/91	UB	2.700
06/26/91	UB	LT 0.050
08/07/91	UB	0.311
08/28/91	UB	LT 0.050
09/04/91	UB	LT 0.050
09/25/91	UB	LT 0.050

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8/10/93  
DPA

South Plants - FY91 GC/MS Data (ug/l)

Quarter 1

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
111TCE	1,1,1-Trichloroethane	10/29/90	UB	1.00		1.00
112TCE	1,1,2-Trichloroethane	10/29/90	UB	1.00		1.00
11DCE	1,1,-Dichloroethylene	10/29/90	UB	1.00		1.00
11DCLE	1,1-Dichloroethane	10/29/90	UB	1.00		1.00
123TCB	1,2,3-Trichlorobenzene	10/03/90	UB	5.80	LT	--
124TCB	1,2,4-Trichlorobenzene	10/03/90	UB	2.40	LT	--
124TCB	1,2,4-Trichlorobenzene	10/29/90	UB	2.40	LT	2.40
12DCE	1,2-Dichloroethylene	10/29/90	UB	5.00		5.00
12DCLB	1,2-Dichlorobenzene	10/03/90	UB	1.20	LT	--
12DCLB	1,2-Dichlorobenzene	10/29/90	UB	1.20	LT	1.20
12DCLE	1,2-Dichloroethane	10/29/90	UB	1.00		1.00
12DCLP	1,2-Dichloropropane	10/29/90	UB	1.00		1.00
12DPH	1,2-Diphenylhydrazine	10/03/90	UB	13.0	LT	--
13DCLB	1,3-Dichlorobenzene	10/03/90	UB	3.40	LT	--
13DCLB	1,3-Dichlorobenzene	10/29/90	UB	3.40	LT	3.40
13DCLB	1,3-Dichlorobenzene	10/29/90	UB	1.00		1.00
13DCP	1,3-Dichloropropane	10/29/90	UB	4.80		4.80
13DMB	1,3-Dimethylbenzene	10/29/90	UB	1.00		1.00
14DCLB	1,4-Dichlorobenzene	10/03/90	UB	1.50	LT	--
14DCLB	1,4-Dichlorobenzene	10/29/90	UB	1.50	LT	1.50
236TCP	2,3,6-Trichlorophenol	10/03/90	UB	1.70	LT	--
245TCP	2,4,5-Trichlorophenol	10/03/90	UB	2.80	LT	--
245TCP	2,4,5-Trichlorophenol	10/29/90	UB	2.80	LT	2.80
246TCP	2,4,6-Trichlorophenol	10/03/90	UB	3.60	LT	--
246TCP	2,4,6-Trichlorophenol	10/29/90	UB	3.60	LT	3.60
24DCLP	2,4-Dichlorophenol	10/03/90	UB	8.40	LT	--
24DCLP	2,4-Dichlorophenol	10/29/90	UB	8.40	LT	8.40

(Continued)

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8/10/93  
DPA

South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
24DMPN	2,4-Dimethylphenol	10/03/90	UB	4.40	4.40	--
24DMPN	2,4-Dimethylphenol	10/29/90	UB	4.40	4.40	4.40
24DNP	2,4-Dinitrophenol	10/03/90	UB	176	176	--
24DNP	2,4-Dinitrophenol	10/29/90	UB	176	176	176
24DNT	2,4-Dinitrotoluene	10/03/90	UB	5.80	5.80	--
24DNT	2,4-Dinitrotoluene	10/29/90	UB	5.80	5.80	5.80
26DNA	2,6-Dinitroaniline	10/03/90	UB	8.80	8.80	--
26DNT	2,6-Dinitrotoluene	10/03/90	UB	6.70	6.70	--
26DNT	2,6-Dinitrotoluene	10/29/90	UB	6.70	6.70	6.70
2CLEVE	2-Chloroethylvinyl Ether	10/29/90	UB	3.50	--	3.50
2CLP	2-Chlorophenol	10/03/90	UB	2.80	2.80	--
2CLP	2-Chlorophenol	10/29/90	UB	2.80	2.80	2.80
2CNAP	2-Chloronaphthalene	10/03/90	UB	2.60	2.60	--
2CNAP	2-Chloronaphthalene	10/29/90	UB	2.60	2.60	2.60
2MNAP	2-Methylnaphthalene	10/03/90	UB	1.30	1.30	--
2MNAP	2-Methylnaphthalene	10/29/90	UB	1.30	1.30	1.30
2MP	2-Methylphenol/2-Cresol	10/03/90	UB	3.60	3.60	--
2MP	2-Methylphenol/2-Cresol	10/29/90	UB	3.60	3.60	3.60
2NP	2-Nitrophenol	10/03/90	UB	8.20	8.20	--
2NP	2-Nitrophenol	10/29/90	UB	8.20	8.20	8.20
33DCBD	3,3'-Dichlorobenzidine	10/03/90	UB	5.00	5.00	--
33DCBD	3,3'-Dichlorobenzidine	10/29/90	UB	5.00	5.00	5.00
35DNA	3,5-Dinitroaniline	10/03/90	UB	21.0	21.0	--
3NANIL	3-Nitroaniline	10/03/90	UB	15.0	15.0	--
3NANIL	3-Nitroaniline	10/29/90	UB	15.0	15.0	15.0

(Continued)

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8/10/93  
DPA

South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
3NT	3-Nitrotoluene	10/03/90	UB	LT 2.90	LT 2.90	--
4BRPPE	4-Bromophenylphenyl Ether	10/03/90	UB	LT 22.0	LT 22.0	--
4BRPPE	4-Bromophenylphenyl Ether	10/29/90	UB	LT 22.0	LT 22.0	LT 22.0
4CL3C	3-Methyl-4-Chlorophenol	10/03/90	UB	LT 8.50	LT 8.50	--
4CL3C	3-Methyl-4-Chlorophenol	10/29/90	UB	LT 8.50	LT 8.50	LT 8.50
4CLPPE	4-Chlorophenylphenyl Ether	10/03/90	UB	LT 23.0	LT 23.0	--
4CLPPE	4-Chlorophenylphenyl Ether	10/29/90	UB	LT 23.0	LT 23.0	LT 23.0
4MP	4-Methylphenol/4-Cresol	10/03/90	UB	LT 2.80	LT 2.80	--
4MP	4-Methylphenol/4-Cresol	10/29/90	UB	LT 2.80	LT 2.80	LT 2.80
4NP	4-Nitrophenol	10/03/90	UB	LT 96.0	LT 96.0	--
4NP	4-Nitrophenol	10/29/90	UB	LT 96.0	LT 96.0	LT 96.0
ABHC	Alpha-Benzenhexachloride	10/03/90	UB	LT 5.30	LT 5.30	--
ABHC	Alpha-Benzenhexachloride	10/29/90	UB	LT 5.30	LT 5.30	LT 5.30
ACET	Acetone/Dimethyl Ketone	10/29/90	UB	LT 8.00	--	LT 8.00
ACRYLO	Acrylonitrile	10/29/90	UB	LT 8.40	--	LT 8.40
AENSLF	Alpha-Endosulfan	10/03/90	UB	LT 23.0	LT 23.0	--
AENSLF	Alpha-Endosulfan	10/29/90	UB	LT 23.0	LT 23.0	LT 23.0
ALDRN	ALDRIN	10/03/90	UB	LT 13.0	LT 13.0	--
ALDRN	ALDRIN	10/29/90	UB	LT 13.0	LT 13.0	LT 13.0
ANAPNE	Acenaphthene	10/03/90	UB	LT 5.80	LT 5.80	--
ANAPNE	Acenaphthene	10/29/90	UB	LT 5.80	LT 5.80	LT 5.80
ANAPYL	Acenaphthylene	10/03/90	UB	LT 5.10	LT 5.10	--
ANAPYL	Acenaphthylene	10/29/90	UB	LT 5.10	LT 5.10	LT 5.10
ANTRC	Anthracene	10/03/90	UB	LT 5.20	LT 5.20	--
ANTRC	Anthracene	10/29/90	UB	LT 5.20	LT 5.20	LT 5.20

(Continued)

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8/10/93  
DPA

South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
ATZ	Atrazine	10/03/90	UB	LT	5.90	--
B2CEXM	BIS(2-Chloroethoxy)Methane	10/03/90	UB	LT	6.80	--
B2CEXM	BIS(2-Chloroethoxy)Methane	10/29/90	UB	LT	6.80	LT 6.80
B2CIPE	BIS(2-Chloroisopropyl)Ether	10/03/90	UB	LT	5.00	--
B2CIPE	BIS(2-Chloroisopropyl)Ether	10/29/90	UB	LT	5.00	LT 5.00
B2CLEE	BIS(2-Chloroethyl)Ether	10/03/90	UB	LT	.680	--
B2CLEE	BIS(2-Chloroethyl)Ether	10/29/90	UB	LT	.680	LT .680
B2EHP	BIS(2-Ethylhexyl)Phthalate	10/03/90	UB	LT	7.70	--
B2EHP	BIS(2-Ethylhexyl)Phthalate	10/29/90	UB	LT	7.70	LT 7.70
BAANTR	Benzo [A] Anthracene	10/03/90	UB	LT	9.80	--
BAANTR	Benzo [A] Anthracene	10/29/90	UB	LT	9.80	LT 9.80
BAPYR	Benzo [A] Pyrene	10/03/90	UB	LT	14.0	--
BAPYR	Benzo [A] Pyrene	10/29/90	UB	LT	14.0	LT 14.0
BBFANT	Benzo [B] Fluoranthene	10/03/90	UB	LT	10.0	--
BBFANT	Benzo [B] Fluoranthene	10/29/90	UB	LT	10.0	LT 10.0
BBHC	Beta-Benzenehexachloride	10/03/90	UB	LT	17.0	--
BBHC	Beta-Benzenehexachloride	10/29/90	UB	LT	17.0	LT 17.0
BBZP	Butylbenzyl Phthalate	10/03/90	UB	LT	28.0	--
BBZP	Butylbenzyl Phthalate	10/29/90	UB	LT	28.0	LT 28.0
BENSLF	Beta-Endosulfan/Endosulfan II	10/03/90	UB	LT	42.0	--
BENSLF	Beta-Endosulfan/Endosulfan II	10/29/90	UB	LT	42.0	LT 42.0
BGHIPY	Benzo [G,H,I] Perylene	10/03/90	UB	LT	15.0	--
BGHIPY	Benzo [G,H,I] Perylene	10/29/90	UB	LT	15.0	LT 15.0
BKFANT	Benzo [K] Fluoranthene	10/03/90	UB	LT	10.0	--

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
BKFANT	Benzo [k] Fluoranthene	10/29/90	UB	LT	LT	LT
BRDCLM	Bromodichloromethane	10/29/90	UB	10.0	10.0	10.0
BRMCIL	Bromacil	10/03/90	UB	1.00	--	LT
BZALC	Benzyl Alcohol	10/03/90	UB	2.90	2.90	--
BZALC	Benzyl Alcohol	10/03/90	UB	4.00	4.00	--
C2H3CL	Chloroethene/Vinyl Chloride	10/29/90	UB	4.00	4.00	4.00
C2H5CL	Chloroethane	10/29/90	UB	12.0	--	LT
C6H6	Benzene	10/29/90	UB	8.00	--	LT
CCL3F	Trichlorofluoromethane	10/29/90	UB	1.00	--	LT
CCL4	Carbon Tetrachloride	10/29/90	UB	1.00	--	LT
CH2CL2	Methylene Chloride	10/29/90	UB	1.00	--	LT
CH3BR	Bromomethane	10/29/90	UB	14.0	--	LT
CH3CL	Chloromethane	10/29/90	UB	1.20	--	LT
CHBR3	Bromoform	10/29/90	UB	11.0	--	LT
CHCL3	Chloroform	10/29/90	UB	1.00	--	110
CHRY	Chrysene	10/03/90	UB	7.40	7.40	--
CHRY	Chrysene	10/29/90	UB	7.40	7.40	7.40
CL6BZ	Hexachlorobenzene	10/03/90	UB	12.0	12.0	--
CL6BZ	Hexachlorobenzene	10/29/90	UB	12.0	12.0	12.0
CL6CP	Hexachlorocyclopentadiene	10/03/90	UB	54.0	54.0	--
CL6CP	Hexachlorocyclopentadiene	10/29/90	UB	54.0	54.0	54.0
CL6ET	Hexachloroethane	10/03/90	UB	8.30	8.30	--
CL6ET	Hexachloroethane	10/29/90	UB	8.30	8.30	8.30
CLC6H5	Chlorobenzene	10/29/90	UB	1.00	--	LT

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
CLDAN	Chlordane	10/03/90	UB	LT 37.0	LT 37.0	--
CPMS	4-Chlorophenylmethyl Sulfide	10/03/90	UB	LT 10.0	LT 10.0	--
CPMSO	4-Chlorophenylmethyl Sulfoxide	10/03/90	UB	LT 15.0	LT 15.0	--
CPMSO2	4-Chlorophenylmethyl Sulfone	10/03/90	UB	LT 5.30	LT 5.30	--
DBAHA	Dibenz[A,H]Anthracene	10/03/90	UB	LT 12.0	LT 12.0	--
DBAHA	Dibenz[A,H]Anthracene	10/29/90	UB	LT 12.0	LT 12.0	LT 12.0
DBCP	Dibromochloropropane	10/03/90	UB	LT 12.0	LT 12.0	--
DBRCLM	Dibromochloromethane	10/29/90	UB	LT 1.00	LT 1.00	LT 1.00
DBZFUR	Dibenzofuran	10/03/90	UB	LT 5.10	LT 5.10	--
DBZFUR	Dibenzofuran	10/29/90	UB	LT 5.10	LT 5.10	LT 5.10
DCLB	Dichlorobenzene	10/29/90	UB	LT 2.00	LT 2.00	LT 2.00
DCPD	Dicyclopentadiene	10/03/90	UB	LT 5.50	LT 5.50	--
DDVP	Vapona	10/03/90	UB	LT 8.50	LT 8.50	--
DEP	Diethyl phthalate	10/03/90	UB	LT 5.90	LT 5.90	--
DEP	Diethyl Phthalate	10/29/90	UB	LT 5.90	LT 5.90	--
DIMP	Diisopropylmethyl Phosphonate	10/03/90	UB	LT 21.0	LT 21.0	LT 5.90
DITH	Dithiane	10/03/90	UB	LT 3.30	LT 3.30	--
DLDRN	Dieldrin	10/03/90	UB	LT 26.0	LT 26.0	--
DLDRN	Dieldrin	10/29/90	UB	LT 26.0	LT 26.0	LT 26.0
DMMP	Dimethylmethyl Phosphate	10/03/90	UB	LT 130	130	--
DMP	Dimethyl Phthalate	10/03/90	UB	LT 2.20	LT 2.20	--
DMP	Dimethyl Phthalate	10/29/90	UB	LT 2.20	LT 2.20	LT 2.20
DNBP	Di-N-Butyl Phthalate	10/03/90	UB	LT 33.0	LT 33.0	--
DNBP	Di-N-Butyl Phthalate	10/29/90	UB	LT 33.0	LT 33.0	LT 33.0

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
DNOP	Di-N-Octyl Phthalate	10/03/90	UB	1.50	1.50	--
DNOP	Di-N-Octyl Phthalate	10/29/90	UB	1.50	1.50	1.50
ENDRN	Endrin	10/03/90	UB	18.0	18.0	--
ENDRN	Endrin	10/29/90	UB	18.0	18.0	18.0
ENDRNA	Endrin Aldehyde	10/03/90	UB	5.0	5.0	--
ESFS04	Endosulfan Sulfate	10/03/90	UB	50.0	50.0	--
ESFS04	Endosulfan Sulfate	10/29/90	UB	50.0	50.0	50.0
ETC6H5	Ethylbenzene	10/29/90	UB	1.00	--	1.00
FANT	Fluoranthene	10/03/90	UB	24.0	24.0	--
FANT	Fluoranthene	10/29/90	UB	24.0	24.0	24.0
FLRENE	Fluorene	10/03/90	UB	9.20	9.20	--
FLRENE	Fluorene	10/29/90	UB	9.20	9.20	9.20
HCBD	Hexachlorobutadiene	10/03/90	UB	8.70	8.70	--
HCBD	Hexachlorobutadiene	10/29/90	UB	8.70	8.70	8.70
HPCL	Heptachlor	10/03/90	UB	38.0	38.0	--
HPCL	Heptachlor	10/29/90	UB	38.0	38.0	38.0
HPCLE	Heptachlor Epoxide	10/03/90	UB	28.0	28.0	--
HPCLE	Heptachlor Epoxide	19/29/90	UB	28.0	28.0	28.0
ICDPYR	Indeno{1,2,3-C,D}Pyrene	10/03/90	UB	21.0	21.0	--
ICDPYR	Indeno{1,2,3-C,D}Pyrene	10/29/90	UB	21.0	21.0	21.0
ISODR	Isodrin	10/03/90	UB	7.80	7.80	--
ISOPHR	Isophorone	10/03/90	UB	2.40	2.40	--
ISOPHR	Isophorone	10/29/90	UB	2.40	2.40	2.40
LIN	Lindane	10/03/90	UB	7.20	7.20	--
LIN	Lindane	10/29/90	UB	7.20	7.20	7.20

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

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Quarter 1 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
MEC6H5	Toluene	10/29/90	UB	1.00	--	LT 1.00
MEK	Methylethyl Ketone	10/29/90	UB	10.0	--	LT 10.0
MEXCLR	Methoxychlor	10/03/90	UB	11.0	LT 11.0	--
MEXCLR	Methoxychlor	10/29/90	UB	11.0	LT 11.0	LT 11.0
MIBK	Methylisobutyl Ketone	10/29/90	UB	1.40	--	LT 1.40
MIREX	Mirex	10/03/90	UB	24.0	LT 24.0	--
MLTHN	Malathion	10/03/90	UB	21.0	LT 21.0	--
NAP	Naphthalene	10/03/90	UB	.500	LT .500	--
NAP	Naphthalene	10/29/90	UB	.500	LT .500	LT .500
NB	Nitrobenzene	10/03/90	UB	3.70	LT 3.70	LT 3.70
NB	Nitrobenzene	10/29/90	UB	3.70	LT 3.70	LT 3.70
NNDMEA	N-Nitroso Dimethylamine	10/03/90	UB	9.70	LT 9.70	--
NNDNPA	N-Nitroso Di-N-Propylamine	10/03/90	UB	6.80	LT 6.80	--
NNDNPA	N-Nitroso Di-N-Propylamine	10/29/90	UB	6.80	LT 6.80	9.76
NNDPA	N-Nitroso Diphenylamine	10/03/90	UB	3.70	LT 3.70	--
NNDPA	N-Nitroso Diphenylamine	10/29/90	UB	3.70	LT 3.70	LT 3.70
OXAT	1,4-Oxathiane	10/03/90	UB	27.0	LT 27.0	--
PCP	Pentachlorophenol	10/03/90	UB	9.10	LT 9.10	--
PCP	Pentachlorophenol	10/29/90	UB	9.10	LT 9.10	LT 9.10
PHANTR	Phenanthrene	10/03/90	UB	9.90	LT 9.90	--
PHANTR	Phenanthrene	10/29/90	UB	9.90	LT 9.90	LT 9.90
PHENOL	Phenol	10/03/90	UB	2.20	LT 2.20	--
PHENOL	Phenol	10/29/90	UB	2.20	LT 2.20	LT 2.20
PPDDD	P,p'-DDD	10/03/90	UB	18.0	LT 18.0	--

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 1 (Concluded)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
PPDDD	P,P'-DDD	10/29/90	UB	LT 18.0	LT 18.0	LT 18.0
PPDDE	P,P'-DDE	10/03/90	UB	LT 14.0	LT 14.0	--
PPDDE	P,P'-DDE	10/29/90	UB	LT 14.0	LT 14.0	LT 14.0
PPDDT	P,P'-DDT	10/03/90	UB	LT 18.0	LT 18.0	--
PPDDT	P,P'-DDT	10/29/90	UB	LT 18.0	LT 18.0	LT 18.0
PRTHN	Parathion	10/03/90	UB	LT 37.0	LT 37.0	--
PYR	Pyrene	10/03/90	UB	LT 17.0	LT 17.0	--
PYR	Pyrene	10/29/90	UB	LT 17.0	LT 17.0	LT 17.0
SUPONA	Supona	10/03/90	UB	LT 19.0	LT 19.0	--
TCLEA	1,1,2,2-Tetrachloroethane	10/29/90	UB	LT 1.50	--	LT 1.50
TCLEE	Tetrachloroethylene	10/29/90	UB	LT 1.00	--	1.02
TRCLE	Trichloroethylene	10/29/90	UB	LT 1.00	--	LT 1.00
XYLEN	Xylenes	10/29/90	UB	LT 2.00	--	LT 2.00

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
111TCE	1,1,1-Trichloroethane	02/26/91	UB	--	1.00	1.00
112TCE	1,1,2-Trichloroethane	02/26/91	UB	--	1.00	1.00
11DCE	1,1-Dichloroethylene	02/26/91	UB	--	1.00	1.00
11DCLE	1,1-Dichloroethane	02/26/91	UB	--	1.00	1.00
123TCB	1,2,3-Trichlorobenzene	02/26/91	UB	LT 5.80	5.80	5.80
124TCB	1,2,4-Trichlorobenzene	02/26/91	UB	LT 2.40	2.40	2.40
12DCE	1,2-Dichloroethylene	02/26/91	UB	--	5.00	5.00
12DCLB	1,2-Dichlorobenzene	02/26/91	UB	LT 1.20	1.20	1.20
12DCLE	1,2-Dichloroethane	02/26/91	UB	--	1.00	1.00
12DCLP	1,2-Dichloropropane	02/26/91	UB	--	1.00	1.00
12DPH	1,2-Diphenylhydrazine	02/26/91	UB	LT 13.0	13.0	13.0
13DCLB	1,3-Dichlorobenzene	02/26/91	UB	LT 3.40	3.40	3.40
13DCLB	1,3-Dichlorobenzene	02/26/91	UB	--	1.00	1.00
13DCP	1,3-Dichloropropane	02/26/91	UB	--	4.80	4.80
13DMB	1,3-Dimethylbenzene	02/26/91	UB	--	1.00	1.00
14DCLB	1,4-Dichlorobenzene	02/26/91	UB	LT 1.50	1.50	1.50
236TCP	2,3,6-Trichlorophenol	02/26/91	UB	LT 1.70	1.70	1.70
245TCP	2,4,5-Trichlorophenol	02/26/91	UB	LT 2.80	2.80	2.80
246TCP	2,4,6-Trichlorophenol	02/26/91	UB	LT 3.60	3.60	3.60
24DCLP	2,4-Dichlorophenol	02/26/91	UB	LT 8.40	8.40	8.40
24DMPN	2,4-Dimethylphenol	02/26/91	UB	LT 4.40	4.40	4.40
24DNP	2,4-Dinitrophenol	02/26/91	UB	176	176	176
24DNT	2,4-Dinitrotoluene	02/26/91	UB	LT 5.80	5.80	5.80
26DNA	2,6-Dinitroaniline	02/26/91	UB	LT 8.80	8.80	8.80
26DNT	2,6-Dinitrotoluene	02/26/91	UB	LT 6.70	6.70	6.70
2CLEVE	2-Chloroethylvinyl Ether	02/26/91	UB	--	3.50	3.50

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
2CLP	2-Chlorophenol	02/26/91	UB	LT 2.80	LT 2.80	LT 2.80
2CNAP	2-Chloronaphthalene	02/26/91	UB	LT 2.60	LT 2.60	LT 2.60
2MNAP	2-Methylnaphthalene	02/26/91	UB	LT 1.30	LT 1.30	LT 1.30
2MP	2-Methylphenol/2-Cresol	02/26/91	UB	LT 3.60	LT 3.60	LT 3.60
2NP	2-Nitrophenol	02/26/91	UB	LT 8.20	LT 8.20	LT 8.20
33DCBD	3,3'-Dichlorobenzidine	02/26/91	UB	LT 5.00	LT 5.00	LT 5.00
35DNA	3,5-Dinitroaniline	02/26/91	UB	LT 21.0	LT 21.0	LT 21.0
3NANIL	3-Nitroaniline	02/26/91	UB	LT 15.0	LT 15.0	LT 15.0
3NT	3-Nitrotoluene	02/26/91	UB	LT 2.90	LT 2.90	LT 2.90
4ABRPPE	4-Bromophenylphenyl Ether	02/26/91	UB	LT 22.0	LT 22.0	LT 22.0
4CL3C	3-Methyl-4-Chlorophenol	02/26/91	UB	LT 8.50	LT 8.50	LT 8.50
4CLPPE	4-Chlorophenylphenyl Ether	02/26/91	UB	LT 23.0	LT 23.0	LT 23.0
4MP	4-Methylphenol/4-Cresol	02/26/91	UB	LT 2.80	LT 2.80	LT 2.80
4NP	4-Nitrophenol	02/26/91	UB	LT 96.0	LT 96.0	LT 96.0
ABHC	Alpha-Benzenhexachloride	02/26/91	UB	LT 5.30	LT 5.30	LT 5.30
ACET	Acetone/Dimethyl Ketone	02/26/91	UB	--	LT 8.00	LT 8.00
ACRYLO	Acrylonitrile	02/26/91	UB	--	LT 8.40	LT 8.40
AENSLF	Alpha-Endosulfan	02/26/91	UB	LT 23.0	LT 23.0	LT 23.0
ALDRN	Aldrin	02/26/91	UB	LT 13.0	LT 13.0	LT 13.0
ANAPNE	Acenaphthene	02/26/91	UB	LT 5.80	LT 5.80	LT 5.80
ANAPYL	Acenaphthylene	02/26/91	UB	LT 5.10	LT 5.10	LT 5.10
ANTRC	Anthracene	02/26/91	UB	LT 5.20	LT 5.20	LT 5.20
ATZ	Atrazine	02/26/91	UB	LT 5.90	LT 5.90	LT 5.90
B2CEXM	Bis (2-Chloroethoxy) Methane	02/26/91	UB	LT 6.80	LT 6.80	LT 6.80
B2CIPE	Bis (2-Chloroisopropyl) Ether	02/26/91	UB	LT 5.00	LT 5.00	LT 5.00

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
B2CLEE	Bis (2-Chloroethyl) Ether	02/26/91	UB	LT	LT	LT
B2EHP	Bis (2-Ethylhexyl) Phthalate	02/26/91	UB	.680	.680	14.7
BAANTR	Benzo [A] Anthracene	02/26/91	UB	7.70	7.70	9.80
BAPYR	Benzo [A] Pyrene	02/26/91	UB	9.80	9.80	14.0
BBFANT	Benzo [B] Flouranthene	02/26/91	UB	14.0	10.0	10.0
BBHC	Beta-Benzenehexachloride	02/26/91	UB	17.0	17.0	17.0
BBZP	Butylbenzyl Phthalate	02/26/91	UB	28.0	28.0	28.0
BENSLF	Beta-Endosulfan/Endosulfan II	02/26/91	UB	42.0	42.0	42.0
BGHIPY	Benzo [G,H,I] Perylene	02/26/91	UB	15.0	15.0	15.0
BKFANT	Benzo [K] Flouranthene	02/26/91	UB	10.0	10.0	10.0
BRDCLM	Bromodichloromethane	02/26/91	UB	--	1.00	1.00
BRMCIL	Bromacil	02/26/91	UB	2.90	2.90	2.90
BZALC	Benzyl Alcohol	02/26/91	UB	4.00	4.00	4.00
C2H3CL	Chloroethene/Vinyl Chloride	02/26/91	UB	--	12.0	12.0
C2H5CL	Chloroethane	02/26/91	UB	--	8.00	8.00
C6H6	Benzene	02/26/91	UB	--	1.00	1.00
CCL3F	Trichlorofluoromethane	02/26/91	UB	--	1.00	1.00
CCL4	Carbon Tetrachloride	02/26/91	UB	--	1.00	1.00
CH2CL2	Methylene Chloride	02/26/91	UB	--	1.00	93.9
CH3BR	Bromomethane	02/26/91	UB	--	14.0	14.0
CH3CL	Chloromethane	02/26/91	UB	--	1.20	1.20
CHBR3	Bromoform	02/26/91	UB	--	11.0	11.0
CHCL3	Chloroform	02/26/91	UB	--	1.00	19.0
CHRY	Chrysene	02/26/91	UB	7.40	7.40	7.40
CL6BZ	Hexachlorobenzene	02/26/91	UB	12.0	12.0	12.0
CL6CP	Hexachlorocyclopentadiene	02/26/91	UB	54.0	54.0	54.0

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
CL6ET	Hexachloroethane	02/26/91	UB	LT 8.30	LT 8.30	LT 8.30
CLC6H5	Chlorobenzene	02/26/91	UB	--	1.00	LT 1.00
CLDAN	Chlordane	02/26/91	UB	37.0	37.0	LT 37.0
CPMS	4-Chlorophenylmethyl Sulfide	02/26/91	UB	10.0	10.0	LT 10.0
CPMSO	4-Chlorophenylmethyl Sulfoxide	02/26/91	UB	15.0	15.0	LT 15.0
CPMSO2	4-Chlorophenylmethyl Sulfone	02/26/91	UB	5.30	5.30	LT 5.30
DBAHA	Dibenz [A,H] Anthracene	02/26/91	UB	12.0	12.0	LT 12.0
DBCP	Dibromochloropropane	02/26/91	UB	12.0	12.0	LT 12.0
DBRCLM	Dibromochloromethane	02/26/91	UB	--	1.00	LT 1.00
DBZFFUR	Dibenzofuran	02/26/91	UB	5.10	5.10	LT 5.10
DCLB	Dichlorobenzene	02/26/91	UB	--	2.00	LT 2.00
DICPD	Dicyclopentadiene	02/26/91	UB	5.50	5.50	LT 5.50
DDVP	Vapona	02/26/91	UB	8.50	8.50	LT 8.50
DEP	Diethyl Phthalate	02/26/91	UB	5.90	5.90	LT 5.90
DIMP	Diisopropylmethyl Phosphonate	02/26/91	UB	24.5	21.0	LT 42.5
DITH	Dithiane	02/26/91	UB	3.30	3.30	LT 3.30
DLDRN	Dieldrin	02/26/91	UB	26.0	26.0	LT 26.0
DMMP	Dimethylmethyl Phosphate	02/26/91	UB	130	130	LT 130
DMP	Dimethyl Phthalate	02/26/91	UB	2.20	2.20	LT 2.20
DNBP	Di-N-Butyl Phthalate	02/26/91	UB	33.0	33.0	LT 33.0
DNOP	Di-N-Octyl Phthalate	02/26/91	UB	1.50	1.50	LT 1.50
ENDRN	Endrin	02/26/91	UB	18.0	18.0	LT 18.0
ENDRNA	Endrin Aldehyde	02/26/91	UB	5.00	5.00	LT 5.00
ESFSO4	Endosulfan Sulfate	02/26/91	UB	50.0	50.0	LT 50.0

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2 (Continued)

8/10/93  
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Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
ETC6H5	Ethylbenzene	02/26/91	UB	--	1.00	LT 1.00
FANT	Fluoranthene	02/26/91	UB	24.0	24.0	LT 24.0
FLRENE	Fluorene	02/26/91	UB	9.20	9.20	LT 9.20
HCBD	Hexachlorobutadiene	02/26/91	UB	8.70	8.70	LT 8.70
HPCL	Heptachlor	02/26/91	UB	38.0	38.0	LT 38.0
HPCLE	Heptachlor Epoxide	02/26/91	UB	28.0	28.0	LT 28.0
ICDPYR	Indeno [1,2,3-C,D] Pyrene	02/26/91	UB	21.0	21.0	LT 21.0
ISODR	Isodrin	02/26/91	UB	7.80	7.80	LT 7.80
ISOPHR	Isophorone	02/26/91	UB	2.40	2.40	LT 2.40
LIN	Lindane	02/26/91	UB	7.20	7.20	LT 7.20
MEX6H5	Toluene	02/26/91	UB	--	1.00	LT 1.00
MEK	Methylethyl Keytone	02/26/91	UB	--	10.0	LT 10.0
MEXCLR	Methoxychlor	02/26/91	UB	11.0	11.0	LT 11.0
MIBK	Methylisobutyl Keytone	02/26/91	UB	--	1.40	LT 1.40
MIREX	Mirex	02/26/91	UB	24.0	24.0	LT 24.0
MLTHN	Malathion	02/26/91	UB	21.0	21.0	LT 21.0
NAP	Naphthalene	02/26/91	UB	.500	.500	LT .500
NB	Nitrobenzene	02/26/91	UB	3.70	3.70	LT 3.70
NNDMEA	N-Nitroso Dimethylamine	02/26/91	UB	9.70	9.70	LT 9.70
NNDNPA	N-Nitroso Di-N-Propylamine	02/26/91	UB	6.80	6.80	LT 6.80
NNDPZ	N-Nitroso Diphenylamine	02/26/91	UB	3.70	3.70	LT 3.70
OXAT	1,4-Oxathiane	02/26/91	UB	27.0	27.0	LT 27.0
PCP	Pentachlorophenol	02/26/91	UB	9.10	9.10	LT 9.10
PHANTR	Phenanthrene	02/26/91	UB	9.90	9.90	LT 9.90

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 2 (Concluded)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
PHENOL	Phenol	02/26/91	UB	LT 2.20	LT 2.20	LT 2.20
PPDDD	P,P'-DDD	02/26/91	UB	LT 18.0	LT 18.0	LT 18.0
PPDDE	P,P'-DDE	02/26/91	UB	LT 14.0	LT 14.0	LT 14.0
PPDDT	P,P'-DDT	02/26/91	UB	LT 18.0	LT 18.0	LT 18.0
PRTHN	Parathion	02/26/91	UB	LT 37.0	LT 37.0	LT 37.0
PYR	Pyrene	02/26/91	UB	LT 17.0	LT 17.0	LT 17.0
SUPONA	Supona	02/26/91	UB	LT 19.0	LT 19.0	LT 19.0
TCLEA	1,1,2,2-Tetrachloroethane	02/26/91	UB	--	LT 1.50	LT 1.50
TCLEE	Tetrachloroethylene	02/26/91	UB	--	LT 1.00	LT 8.06
TRCLE	Trichloroethylene	02/26/91	UB	--	LT 1.00	LT 1.00
XYLEN	Xylenes	02/26/91	UB	--	LT 2.00	LT 2.00

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
111TCE	1,1,1-Trichloroethane	08/06/91	UB	--	1.00	1.00
112TCE	1,1,2-Trichloroethane	08/06/91	UB	--	1.00	1.00
11DCE	1,1-Dichloroethylene	08/06/91	UB	--	1.00	1.00
11DCLE	1,1-Dichloroethane	08/06/91	UB	--	1.00	1.00
123TCB	1,2,3-Trichlorobenzene	08/06/91	UB	--	5.80	5.80
124TCB	1,2,4-Trichlorobenzene	08/06/91	UB	--	2.40	2.40
12DCE	1,2-Dichloroethylene	08/06/91	UB	--	5.00	5.00
12DCLB	1,2-Dichlorobenzene	08/06/91	UB	--	1.20	1.20
12DCLE	1,2-Dichloroethane	08/06/91	UB	--	1.00	1.00
12DCLP	1,2-Dichloropropane	08/06/91	UB	--	1.00	1.00
12DPH	1,2-Diphenylhydrazine	08/06/91	UB	--	13.0	13.0
13DCLB	1,3-Dichlorobenzene	08/06/91	UB	--	3.40	3.40
13DCLB	1,3-Dichlorobenzene	08/06/91	UB	--	1.00	1.00
13DCP	1,3-Dichloropropane	08/06/91	UB	--	4.80	4.80
13DMB	1,3-Dimethylbenzene	08/06/91	UB	--	1.00	1.00
14DCLB	1,4-Dichlorobenzene	08/06/91	UB	--	1.50	1.50
236TCP	2,3,6-Trichlorophenol	08/06/91	UB	--	1.70	1.70
245TCP	2,4,5-Trichlorophenol	08/06/91	UB	--	2.80	2.80
246TCP	2,4,6-Trichlorophenol	08/06/91	UB	--	3.60	3.60
24DCLP	2,4-Dichlorophenol	08/06/91	UB	--	8.40	8.40
24DMPN	2,4-Dimethylphenol	08/06/91	UB	--	4.40	4.40
24DNP	2,4-Dinitrophenol	08/06/91	UB	--	176	176
24DNT	2,4-Dinitrotoluene	08/06/91	UB	--	5.80	5.80
26DNA	2,6-Dinitroaniline	08/06/91	UB	--	8.80	8.80
26DNT	2,6-Dinitrotoluene	08/06/91	UB	--	6.70	6.70
2CLEVE	2-Chloroethylvinyl Ether	08/06/91	UB	--	3.50	3.50

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
2CLP	2-Chlorophenol	08/06/91	UB	--	LT	LT 2.80
2CNAP	2-Chloronaphthalene	08/06/91	UB	--	LT	LT 2.60
2MNAP	2-Methylnaphthalene	08/06/91	UB	--	LT	LT 1.30
2MP	2-Methylnaphthalene	08/06/91	UB	--	LT	LT 3.60
2NP	2-Nitrophenol	08/06/91	UB	--	LT	LT 8.20
33DCBD	3,3'-Dichlorobenzidine	08/06/91	UB	--	LT	LT 5.00
35DNA	3,5-Dinitroaniline	08/06/91	UB	--	LT	LT 21.0
3NANIL	3-Nitroaniline	08/06/91	UB	--	LT	LT 15.0
3NT	3-Nitrotoluene	08/06/91	UB	--	LT	LT 2.90
4BRPPE	4-Bromophenylphenyl Ether	08/06/91	UB	--	LT	LT 22.0
4CL3C	3-Methyl-4-Chlorophenol	08/06/91	UB	--	LT	LT 8.50
4CLPPE	4-Chlorophenylphenyl Ether	08/06/91	UB	--	LT	LT 23.0
4MP	4-Methylphenol/4-Cresol	08/06/91	UB	--	LT	LT 2.80
4NP	4-Nitrophenol	08/06/91	UB	--	LT	LT 96.0
ABHC	Alpha-Benzenehexachloride	08/06/91	UB	--	LT	LT 8.00
ACET	Acetone-Dimethyl Ketone	08/06/91	UB	--	LT	LT 8.00
ACRYLO	Acrylonitrile	08/06/91	UB	--	LT	LT 8.40
AENSLF	Alpha-Endosulfan	08/06/91	UB	--	LT	LT 23.0
ALDRN	Aldrin	08/06/91	UB	--	LT	LT 13.0
ANAPNE	Acenaphthene	08/06/91	UB	--	LT	LT 5.80
ANAPYL	Acenaphthylene	08/06/91	UB	--	LT	LT 5.10
ANTRC	Anthracene	08/06/91	UB	--	LT	LT 5.20
ATZ	Atrazine	08/06/91	UB	--	LT	LT 5.90
B2CEXM	BIS (2-Chloroethoxy) Methane	08/06/91	UB	--	LT	LT 6.80
B2CIPE	BIS (2-Chloroisopropyl) Ether	08/06/91	UB	--	LT	LT 5.00

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
B2CLEE	BIS (2-Chloroethyl) Ether	08/06/91	UB	--	LT	.680
B2EHP	BIS (2-Ethylhexyl) Phthalate	08/06/91	UB	--	LT	7.70
BAANTR	Benzo [A] Anthracene	08/06/91	UB	--	LT	9.80
BAPYR	Benzo [A] Pyrene	08/06/91	UB	--	LT	14.0
BBFANT	Benzo [B] Fluoranthene	08/06/91	UB	--	LT	10.0
BBHC	Beta-Benzenehexachloride	08/06/91	UB	--	LT	17.0
BBZP	Butylbenzyl Phthalate	08/06/91	UB	--	LT	28.0
BENSLF	Beta-Endosulfan/Endosulfane II	08/06/91	UB	--	LT	42.0
BGHIPI	Benzo [G,H,I] Perylene	08/06/91	UB	--	LT	15.0
BKFANT	Benzo [K] Fluoranthene	08/06/91	UB	--	LT	10.0
BRDCLM	Bromodichloromethane	08/06/91	UB	--	LT	1.00
BRMCIL	Bromacil	08/06/91	UB	--	LT	2.90
BZALC	Benzyl Alcohol	08/06/91	UB	--	LT	4.00
C2H3CL	Chloroethene/Vinyl Chloride	08/06/91	UB	--	LT	12.0
C2H5CL	Chloroethane	08/06/91	UB	--	LT	8.00
C6H6	Benzene	08/06/91	UB	--	LT	1.00
CCL3F	Trichlorofluoromethane	08/06/91	UB	--	LT	1.00
CCL4	Carbon Tetrachloride	08/06/91	UB	--	LT	1.00
CH2CL2	Methylene Chloride	08/06/91	UB	--	LT	1.00
CH3BR	Bromomethane	08/06/91	UB	--	LT	14.0
CH3CL	Chloromethane	08/06/91	UB	--	LT	1.20
CHBR3	Bromoform	08/06/91	UB	--	LT	11.0
CHCL3	Chloroform	08/06/91	UB	--	LT	1.00
CHRY	Chrysene	08/06/91	UB	--	LT	14.0
CL6BZ	Hexachlorobenzene	08/06/91	UB	--	LT	7.40
			UB	--	LT	12.0

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
CL6CP	Hexachlorocyclopentadiene	08/06/91	UB	--	LT	LT 54.0
CL6ET	Hexachloroethane	08/06/91	UB	--	LT	LT 8.30
CLC6H5	Chlorobenzene	08/06/91	UB	--	LT	LT 1.00
CPMS	4-Chlorophenylmethyl Sulfide	08/06/91	UB	--	LT	LT 10.0
CPMSO	4-Chlorophenylmethyl Sulfoxide	08/06/91	UB	--	LT	LT 15.0
CPMSO2	4-Chlorophenylmethyl Sulfone	08/06/91	UB	--	LT	LT 5.30
DBAHA	Dibenz [A,H] Anthracene	08/06/91	UB	--	LT	LT 12.0
DBCP	Dibromochloropropane	08/06/91	UB	--	LT	LT 12.0
DBRCLM	Dibromochloromethane	08/06/91	UB	--	LT	LT 1.00
DBZFUR	Dibenzofuran	08/06/91	UB	--	LT	LT 5.10
DCLB	Dichlorobenzene	08/06/91	UB	--	LT	LT 2.00
DCPD	Dicyclopentadiene	08/06/91	UB	--	LT	LT 5.50
DDVP	Vapona	08/06/91	UB	--	LT	LT 8.50
DEP	Diethyl Phthalate	08/06/91	UB	--	LT	LT 5.90
DIMP	Diisopropylmethyl Phosphonate	08/06/91	UB	--	LT	LT 21.0
DITH	Dithiane	08/06/91	UB	--	LT	LT 3.30
DLDRN	Dieldrin	08/06/91	UB	--	LT	LT 26.0
DMMP	Dimethylmethyl Phosphate	08/06/91	UB	--	LT	LT 130
DMP	Dimethyl Phthalate	08/06/91	UB	--	LT	LT 2.20
DMBP	Di-N-Butyl Phthalate	08/06/91	UB	--	LT	LT 33.0
DNOP	Di-N-Octyl Phthalate	08/06/91	UB	--	LT	LT 1.50
ENDRN	Endrin	08/06/91	UB	--	LT	LT 18.0
ENDRNA	Endrin Aldehyde	08/06/91	UB	--	LT	LT 5.00
ESFS04	Edosulfan Sulfate	08/06/91	UB	--	LT	LT 50.0
ETC6H5	Ethylbenzene	08/06/91	UB	--	LT	LT 1.00

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4 (Continued)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
FANT	Fluoranthene	08/06/91	UB	--	24.0	LT 24.0
FLRENE	Fluorene	08/06/91	UB	--	9.20	LT 9.20
HCBD	Hexochlorobutadiene	08/06/91	UB	--	8.70	LT 8.70
HPCL	Heptachlor	08/06/91	UB	--	38.0	LT 38.0
HPCLE	Heptachlor Epoxide	08/06/91	UB	--	28.0	LT 28.0
ICDPYR	Indeno [1,2,3-C,D] Pyrene	08/06/91	UB	--	21.0	LT 21.0
ISODR	Isodrin	08/06/91	UB	--	7.80	LT 7.80
ISOPHR	Isophorone	08/06/91	UB	--	2.40	LT 2.40
LIN	Lindane	08/06/91	UB	--	7.20	LT 7.20
MEC6H5	Toluene	08/06/91	UB	--	1.00	LT 1.00
MEK	Methylethyl Ketone	08/06/91	UB	--	10.0	LT 10.0
MEXCLR	Methoxychlor	08/06/91	UB	--	11.0	LT 11.0
MIBK	Methylisobutyl Ketone	08/06/91	UB	--	1.40	LT 1.40
MIREX	Mirex	08/06/91	UB	--	24.0	LT 24.0
MLTHN	Malathion	08/06/91	UB	--	21.0	LT 21.0
NAP	Naphthalene	08/06/91	UB	--	.500	LT .508
NB	Nitrobenzene	08/06/91	UB	--	3.70	LT 3.70
NNDMEA	N-Nitroso Dimethylamine	08/06/91	UB	--	9.70	LT 9.70
NNDNPA	N-Nitroso Di-N-Propylamine	08/06/91	UB	--	6.80	LT 6.80
NNDPA	N-Nitroso Diphenylamine	08/06/91	UB	--	3.70	LT 3.70
OXAT	1,4-Oxathiane	08/06/91	UB	--	27.0	LT 27.0
PCP	Pentachlorophenol	08/06/91	UB	--	9.10	LT 9.10
PHANTR	Phenanthrene	08/06/91	UB	--	9.90	LT 9.90
PHENOL	Phenol	08/06/91	UB	--	2.20	LT 2.20
PPDDD	P,P'-DDD	08/06/91	UB	--	18.0	LT 18.0

(Continued)

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South Plants - FY91 GC/MS Data (ug/l)

Quarter 4 (Concluded)

Code	Analyte	Date	Lab	PSAAEF	PSASEF	PSIFIN
PPDDE	P,P'DDE	08/06/91	UB	--	14.0	LT 14.0
PPDDT	P,P'-DDT	08/06/91	UB	--	18.0	LT 18.0
PRTHN	Parathion	08/06/91	UB	--	37.0	LT 37.0
PYR	Pyrene	08/06/91	UB	--	17.0	LT 17.0
SUPONA	Supona	08/06/91	UB	--	19.0	LT 19.0
TCLEA	1,1,2,2-Tetrachloroethane	08/06/91	UB	--	1.50	LT 1.50
TCLEE	Tetrachloroethylene	08/06/91	UB	--	1.00	4.26
TRCLE	Trichloroethylene	08/06/91	UB	--	1.00	LT 1.00
XYLEN	Xylenes	08/06/91	UB	--	2.00	LT 2.00

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