ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9003090233 DOC.DATE: 90/02/22 NOTARIZED: NO DOCKET #
FACIL:50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga 05000275
50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga 05000323
AUTH.NAME AUTHOR AFFILIATION
FURTADO,V.C. Pacific Gas & Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
LEONARD,W. California, State of

SUBJECT: Forwards proposed changes to plant monitoring & reporting program,per 900123 & 0220 discussions.

DISTRIBUTION CODE: IE48D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 16
TITLE: 50.36a(a)(2) Semiannual Effluent Release Reports

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD5 LA	3	3	PD5 PD	1	1
	ROOD,H	1	1			
INTERNAL:	ACRS	1	1	AEOD/DSP/TPAB	1	1
	IRM TECH ADV	1	1	NRR/DREP/PRPB11	2	2
	NUDOCS-ABSTRACT	1	1	REG FILE 01	1	1
	RGN5 DRSS/RPB	2	2	RGN5 FILE 02	1	1
EXTERNAL:	BNL TICHLER,J03	1	1	EG&G SIMPSON,F	2	2
	LPDR	1	1	NRC PDR	1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL 20

Encl-1

RIDS/ADDS

RIDS/ADDS

Pacific Gas and Electric Company

One California Street, Room F-1601
San Francisco, CA
415/972-7746
Telex 972-6888

Mailing Address
P.O. Box 7640
San Francisco, CA 94120

Victor C. Furtado, Ph.D.
Manager
Environmental Services

February 22, 1990

PG&E Letter No. DCL-90-051

William Leonard, Executive Officer
California Regional Water Quality Control Board
Central Coast Region
1102-A Laurel Lane
San Luis Obispo, CA 93401

Dear Mr. Leonard:

Proposed Changes to Monitoring and Reporting Program
Diablo Canyon Power Plant - NPDES Permit No. CA0003751

Enclosed are the proposed changes to the existing Monitoring and Reporting Program (85-101) as discussed with you and your staff on January 23 and February 20, 1990. The rationale for each change is included.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Victor C. Furtado

cc: NRC Region V
Document Control Desk

Enclosures

TE46
1/1

ENCLOSURE

1990 DIABLO CANYON POWER PLANT NPDES PERMIT RENEWAL
PROPOSED MONITORING AND REPORTING PROGRAM AND RATIONALE

EFFLUENT MONITORING

1. Discharge 001 - Once Through Cooling Water

A. Grease & Oil

Analysis results for 1987 through 1989 (graph 1) for grease and oil at Discharge 001 have been reported as less than 3 mg/l. The individual discharge streams that contribute to Discharge 001 are monitored for grease & oil on at least a quarterly basis. The most likely source of grease and oil, the Turbine Building Sump (001F), is monitored on a monthly basis.

In addition to the in-plant discharge monitoring of streams which are most likely to contribute oil and grease to Discharge 001, there are various safety features in place to prevent oil from entering the discharge. Most of the oil reservoirs are equipped with level alarms. Safety procedures direct the re-routing of the Turbine Building Sump to the WHAT facility in the event of equipment failure.

Since grease and oil has not been detected in the past three years at Discharge 001 and all relevant in-plant discharges are monitored, and since there are protective safety features in place, it is suggested that the monitoring frequency for grease and oil at Discharge 001 be reduced.

B. Non-Filtrable Residue (NFR)

Analysis results for 1987 through 1989 (graph 2) suggest that there is no significant difference between intake and effluent quarterly monitoring values. This suggests that no significant NFR is contributed by the plant.

Because the NFR contribution from the in-plant discharge is undetectable in Discharge 001 monitoring, it is suggested that in-plant NFR monitoring continue and monitoring at Discharge 001 be removed.

C. Turbidity

Analysis results for 1987 through 1989 (graph 3) indicate no significant difference between intake and effluent values. As is the case with NFR, this suggests that no significant turbidity is being contributed by the plant. Therefore, it is suggested that this parameter be removed from the monitoring program.

D. Ammonia (as N)

The six month median limit for Ammonia (as N) for Discharge 001 is 4.44 mg/l. Analysis results for 1987 through 1989 (graph 4) indicate that intake and effluent values have consistently been below 0.3 mg/l.

It is suggested that the monitoring freguency for ammonia (as N) be reduced.

E. Dissolved Oxygen

The instantaneous limit (minimum acceptable value) for dissolved oxygen is 5 mg/l. Analysis results for 1987 through 1989 (graph 5) indicate that the dissolved oxygen has never been below this limit.

It is suggested that the monitoring frequency for dissolved oxygen be reduced.

F. Arsenic

A composite of Discharges 001B, 001D, 001F, 001H, 001I and 001L is analyzed annually for arsenic. The analysis results for this composite are shown in graph 6. Since only minute amounts of arsenic are used in the plant, it is proposed that the composite analysis be removed from the monitoring program. The monitoring frequency for Discharge 001 will be maintained.

Analysis results for 1987 through 1989 (graph 7) indicate that Discharge 001 has consistently been below the six month median limit of 40 ug/l. The data shown in the associated graph are all "less than detectable" values.

G. Titanium

Analysis results for titanium for 1987 through 1989 (graph 8) indicate a consistent long term trend. Values shown from April 1988 through 1989 represent "less than detectable" values. Please note that the laboratory used to analyze for titanium was changed in April 1988 and their detection limit is higher than the previous lab.

Based on the consistently "less than detectable" values which have been reported for titanium since April 1988, it is suggested that this parameter be removed from the monitoring program.

H. Phenolic Compounds (Non-Chlorinated)

The six-month median limit for Phenolic Compounds (Non-Chlorinated) is 222 ug/l. Analysis results for 1987 through 1989 (graph 9) represent "less than detectable" values.

It is suggested that the monitoring frequency for phenolic compounds be reduced.

I. Chlorinated Phenolics

The six month median limit for chlorinated phenolics is 10 ug/l. Analysis results for 1987 through 1989 (graph 10) have all indicated "less than detectable" values.

It is suggested that the monitoring frequency for chlorinated phenolic compounds be reduced.

J. Polychlorinated Biphenyls

Analysis results for 1987 through 1989 have all indicated "less than detectable" values (graph 11). Since there is no PCB-containing equipment located at the plant site, it is suggested that this monitoring requirement be removed.

K. Free Available Chlorine

Since we presently monitor for Total Residual Chlorine which is much more restrictive than Free Available Chlorine, it is suggested that this monitoring requirement be removed.

2. Discharge 005 - Yard Storm Drains

A. Polychlorinated Biphenyls

The area which contributes to the Discharge 005 Yard Storm Drains does not have any PCB-containing equipment. Analysis results for 1987 through 1989 have all indicated "less than detectable" values (graph 12).

It is suggested that the monitoring requirement be removed.

3. Discharge 001 D - Liquid Radioactive Waste Treatment System Effluent

A. Lithium, Boron, Hydrazine

The long term trends for each of these parameters during 1987 through 1989 are shown on graphs 13, 14, and 15 respectively. The long term average concentrations of lithium, boron and hydrazine in Discharge 001 are inconsequential. Therefore, it is suggested that these parameters be removed from the monitoring program.

4. Continuous Temperature Monitoring

PG&E is proposing to add the following for temperature monitoring.

"In the event the normal continuous temperature monitoring system is unavailable, an alternate means of temperature monitoring will be implemented. This alternate system will remain in use until the normal system operation is restored."

RECEIVING WATER MONITORING

Item 2. Sediment Sampling

As stated in the September 1989 monthly report to the RWQCB, heavy metal concentrations in our annual sediment samples have been fairly consistent during the last five years. Heavy metal concentrations have remained consistent between reference stations and stations within Diablo Cove. It is suggested that this requirement be removed.

Item 3. Aerial Photographs

Aerial photographs of the existing kelp beds from Pecho Rock to Point Buchon were required for a minimum of two years after the operation of Unit 2. Since this requirement has been satisfied, it is suggested that this requirement be removed.

Item 4. Surface Water Temperature Measurements

Offshore surface water measurements were required for at least two years after the commercial operation of Unit 2. PG&E has met this requirement. It is suggested that this requirement be removed.

Item 5. Stratified Water Temperature Monitoring

Data from the offshore stratified water temperature monitoring generally correspond to naturally occurring oceanographic seasons and do not reflect impacts from Diablo Canyon Power Plant (DCPP). Stations 10, 11 and 12, located inside Diablo Cove do reflect influences of DCPP.

It is suggested that the stratified water temperature monitoring requirement for the offshore monitoring stations be removed. Monitoring will be continued for the remaining three stations (10, 11 and 12) located inside Diablo Cove.

Item 6. Stratified Water pH and Dissolved Oxygen Monitoring

This requirement should not be applied to the offshore stations. The existing database that includes more than two years of data during full load operation has shown that operations do not affect these parameters in the offshore region. It is suggested that this requirement be removed.

Item 7. Incident Light Measurements

Incident light is monitored continuously at two subtidal stations and one terrestrial station. The terrestrial station tracks surface light conditions, while the subtidal stations are intended to monitor light reduction due to surface froth or water turbidity.

The data have shown occasional random light reduction. This reduction is not severe or consistent and has had no apparent effect on subtidal flora. Field observations and examination of the data have shown that it is impossible to determine if light reductions are caused by froth, turbidity, probe fouling, mobile marine life or algal cover.

It is suggested that this requirement be removed.

GENERAL REPORTING REQUIREMENT

Item 1. Annual Report

Section C.16. of the Standard Provisions And Reporting Requirements for NPDES Permits states that an annual report to the Regional Board is required by January 30 of each year. Since this report is a compilation of the previous year's monthly reports, PG&E requests an extension for submitting the annual report until February 28th.

Item 2. Discharge 001N Sludge Information

Section C.16. of the Standard Provisions And Reporting Requirements for NPDES Permits states that "If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program, the (annual) report shall include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination."

Discharge 001N, the Sewage Package Treatment System, is believed to fall within this category. Currently, the Monitoring and Reporting Program does not specifically require monitoring of the system's sludge. The annual NPDES report from 1987 through 1989 has reported the amount of sludge removed, the location of the sludges' final destination and a chemical analysis of the sludge, including moisture content.

If this information is to be required, it is suggested that it be included in the Monitoring and Reporting Program. Listed below are suggested sludge monitoring guidelines:

Sludge Removal:

The "dry weight" of sludge removed from the system is to be calculated by analyzing the system influent non-filtrable residue (NFR) periodically. The volume of sludge removed is then multiplied by the NFR to obtain the weight removed.*

* Note that this is a conservative value since a certain amount of solid material is broken down and discharged from the system.

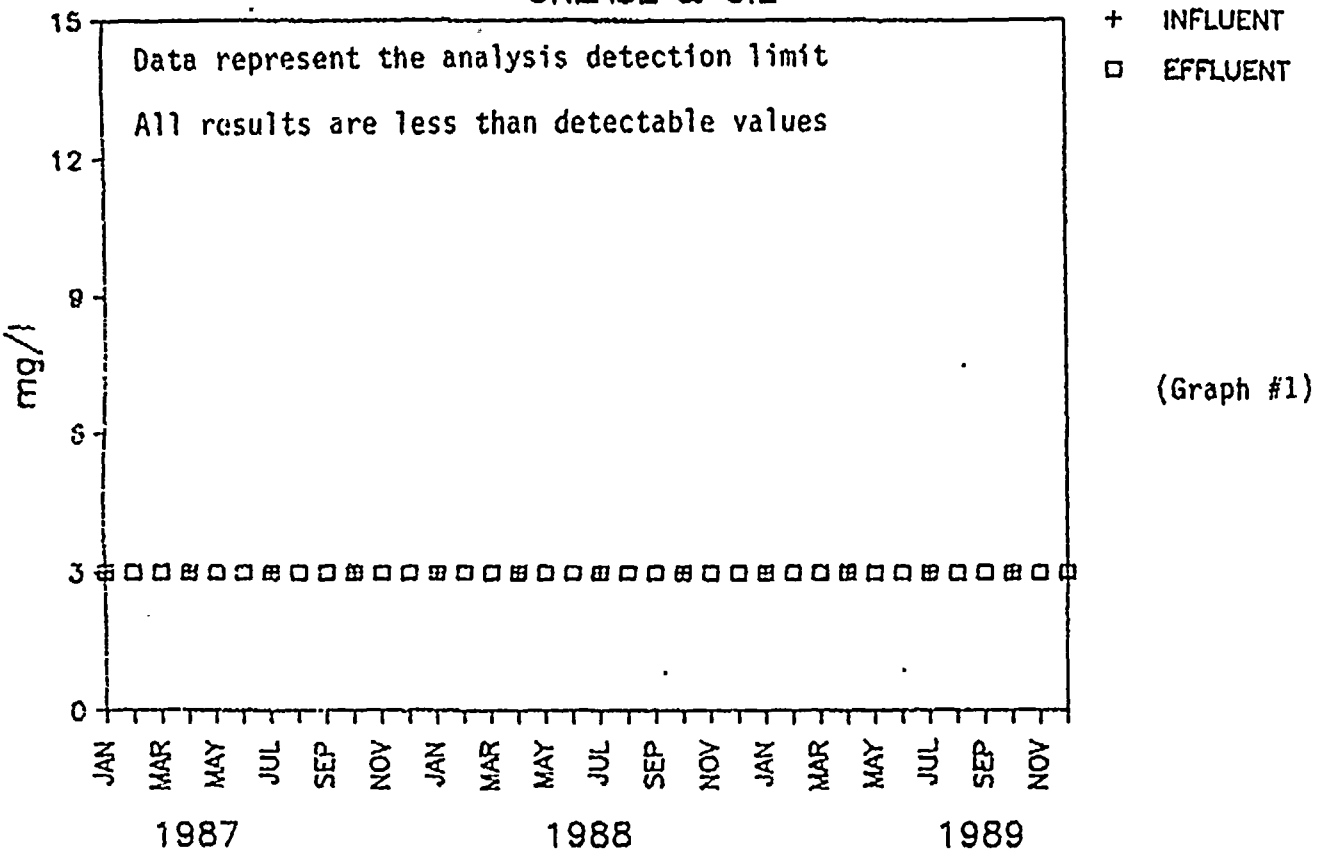
Sludge Analysis:

On an annual basis, sludge from 001N should be analyzed for the following parameters:

Oil & Grease	pH
Nitrogen, Ammonia	Nitrogen, Nitrate
Nitrate	Nitrogen, Total Kjeldahl
Phosphorus, Total	Phosphate, Total
Percent Moisture	Boron
Cadmium	Chromium
Copper	Lead
Mercury	Nickel
Zinc	

DISCHARGE 001

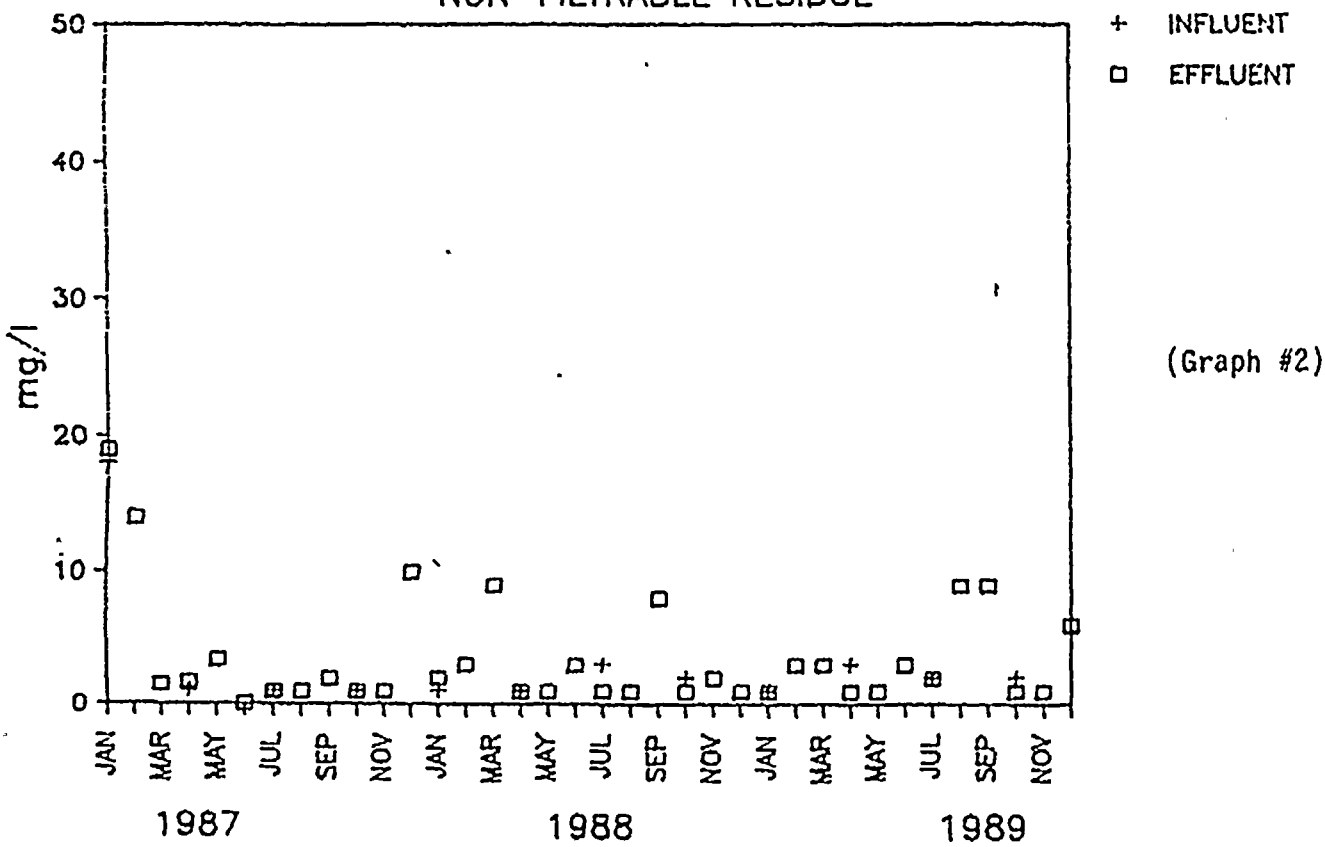
GREASE & OIL



(Graph #1)

DISCHARGE 001

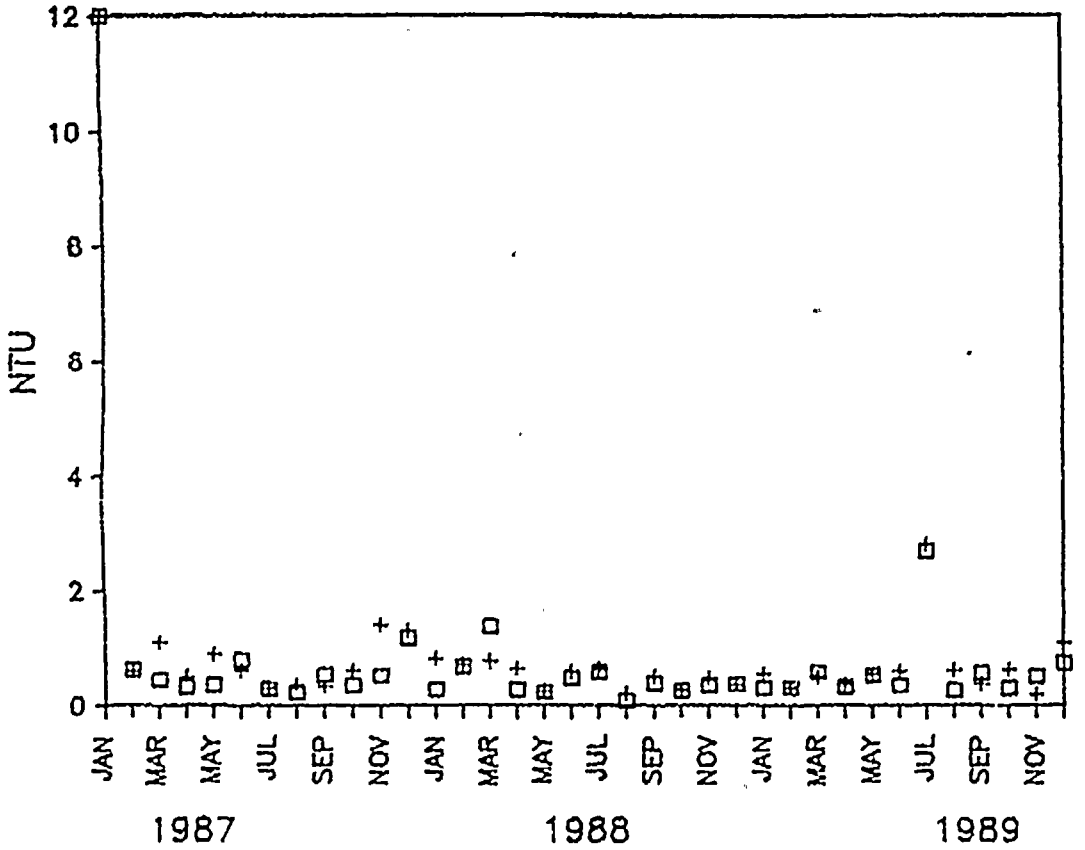
NON-FILTRABLE RESIDUE



(Graph #2)

DISCHARGE 001

TURBIDITY



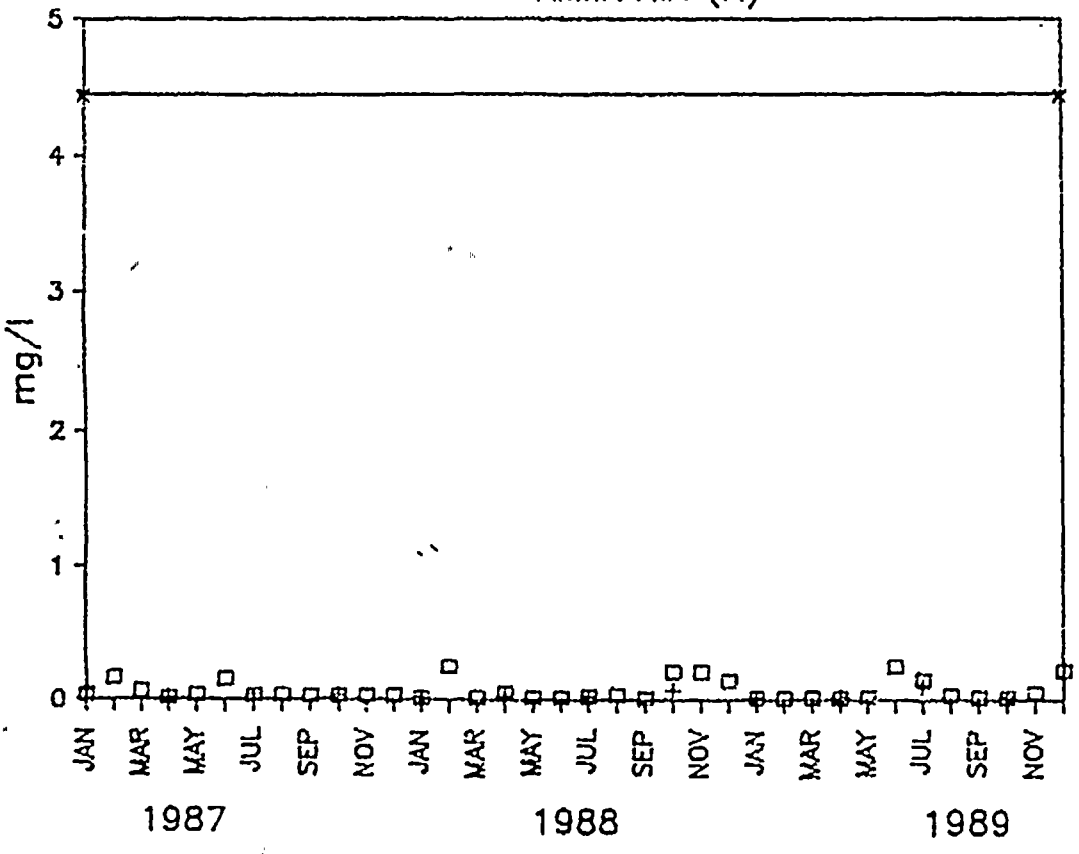
+ INFLUENT

□ EFFLUENT

(Graph #3)

DISCHARGE 001

AMMONIA (N)



+ INFLUENT

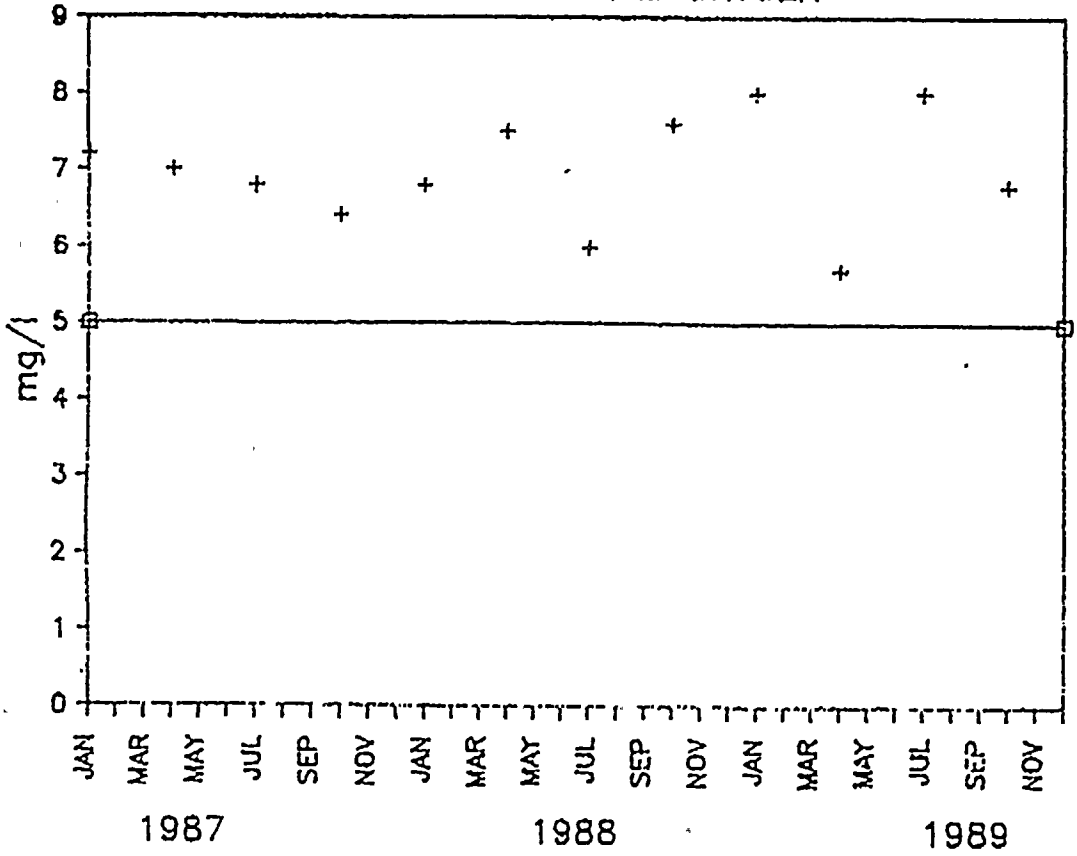
□ EFFLUENT

× limit

(Graph #4)

DISCHARGE 001

DISSOLVED OXYGEN

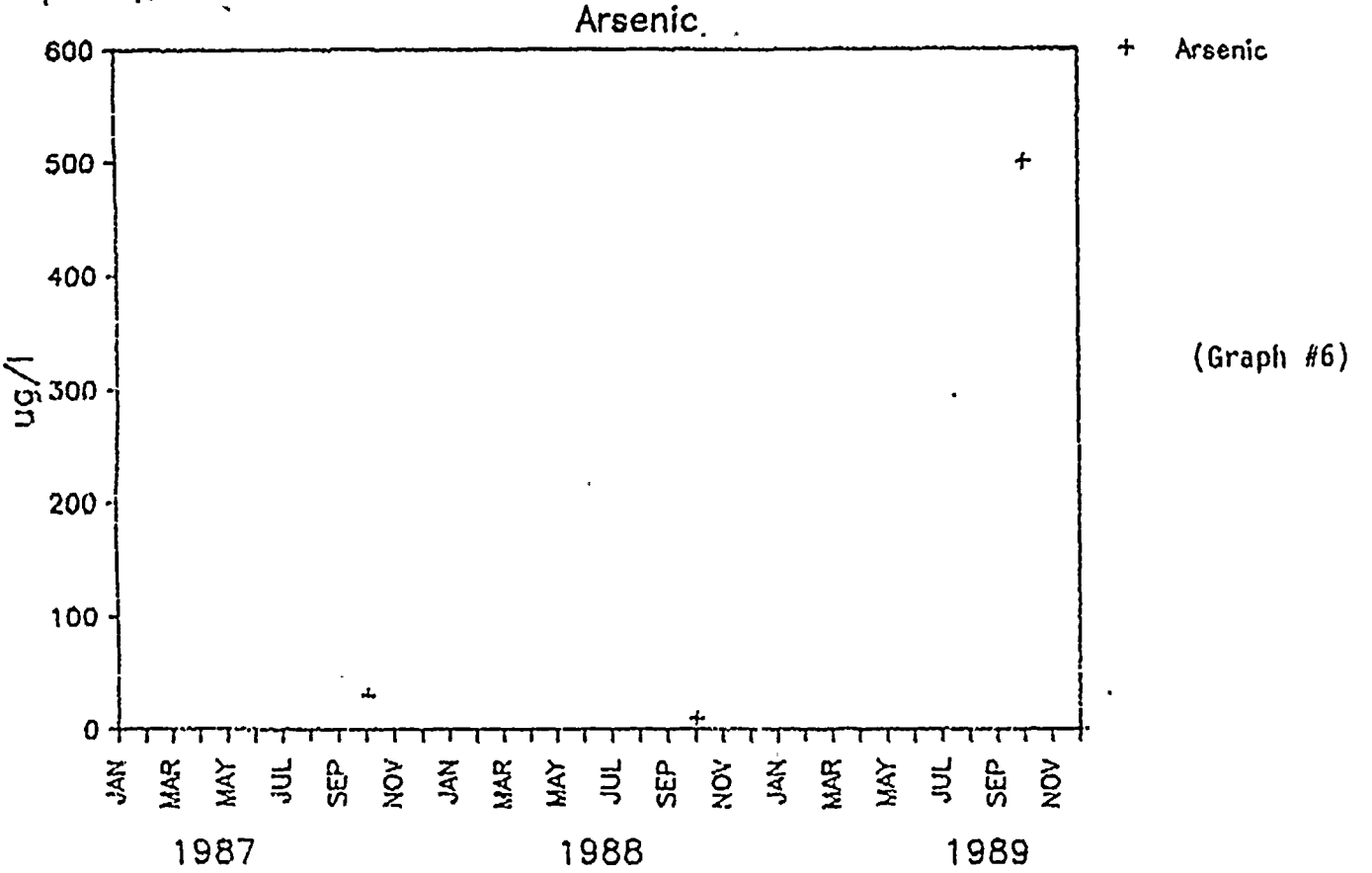


+ EFFLUENT

□ lo limit

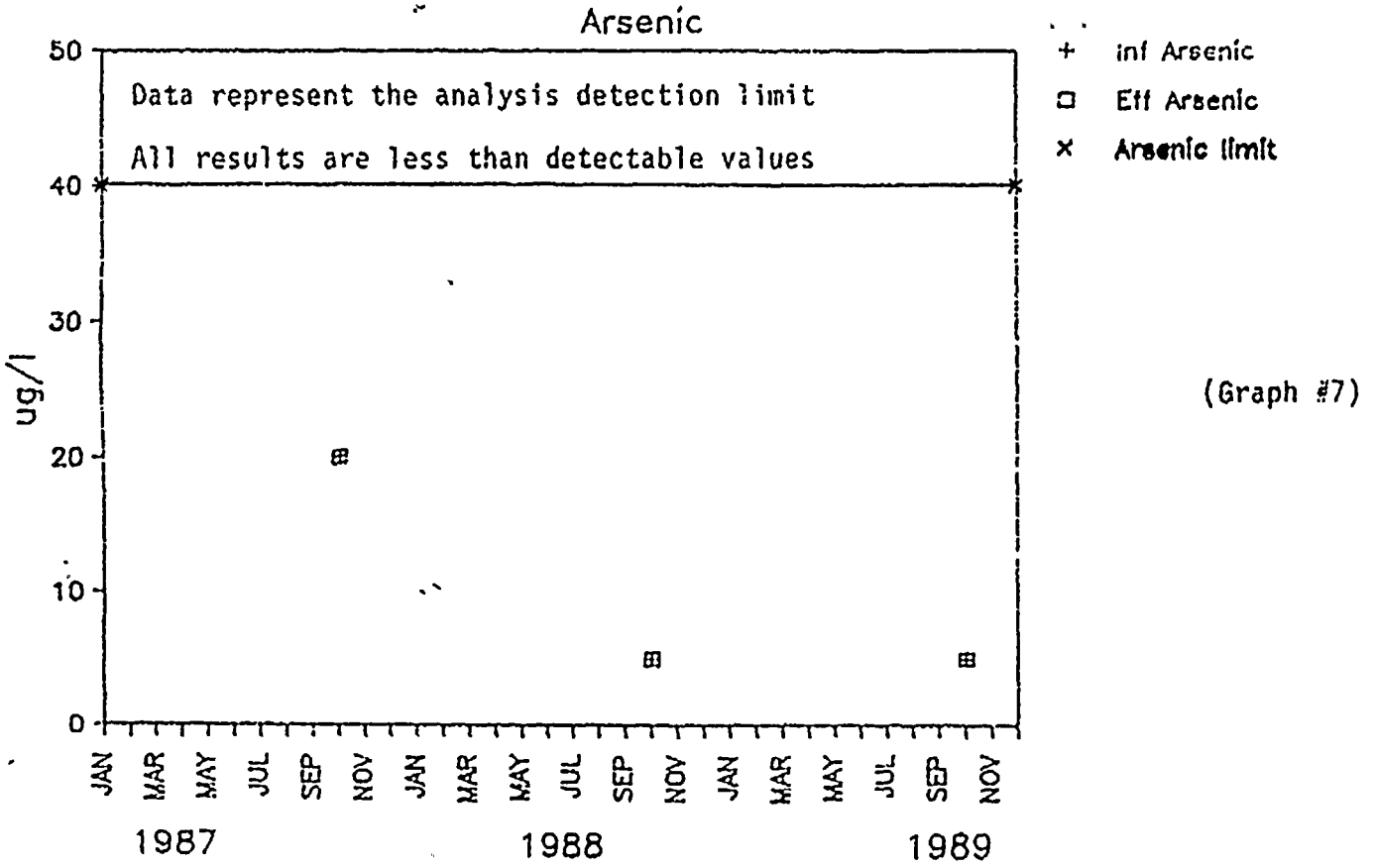
(Graph #5)

DISCHARGE COMPOSITE (001B,D,F,H,I,L)



(Graph #6)

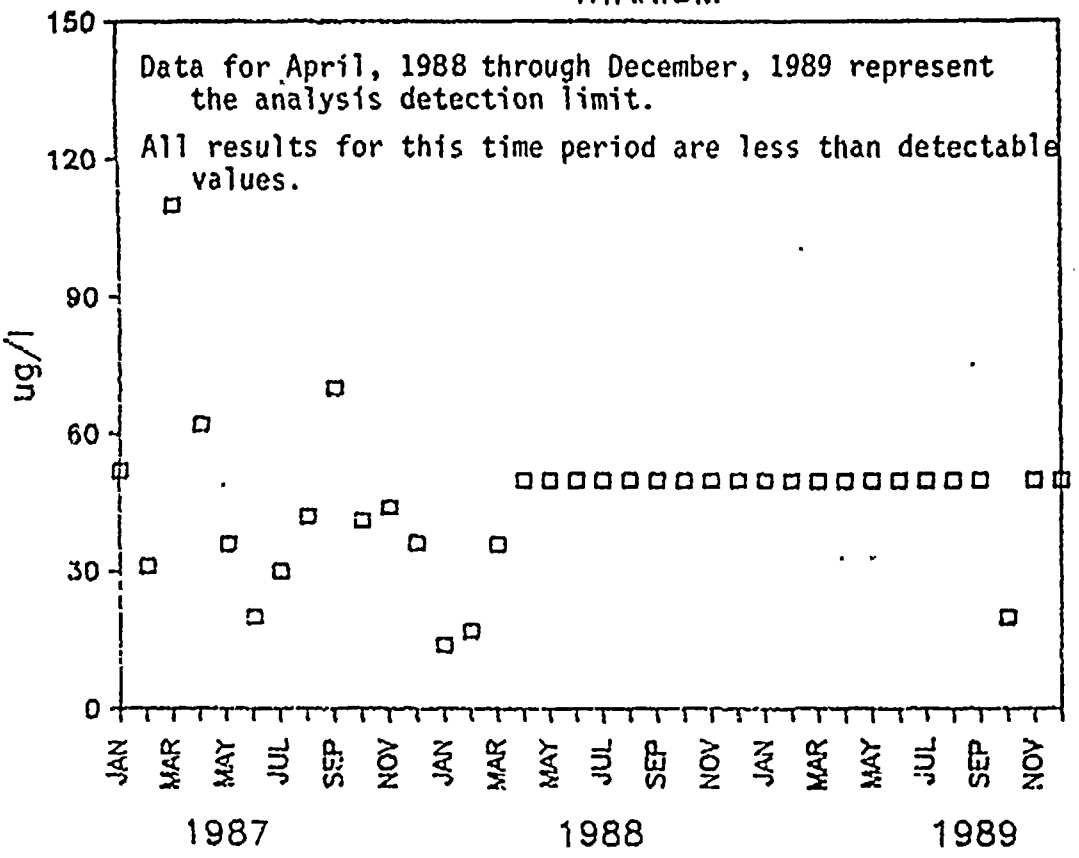
DISCHARGE 001



(Graph #7)

DISCHARGE 001

TITANIUM

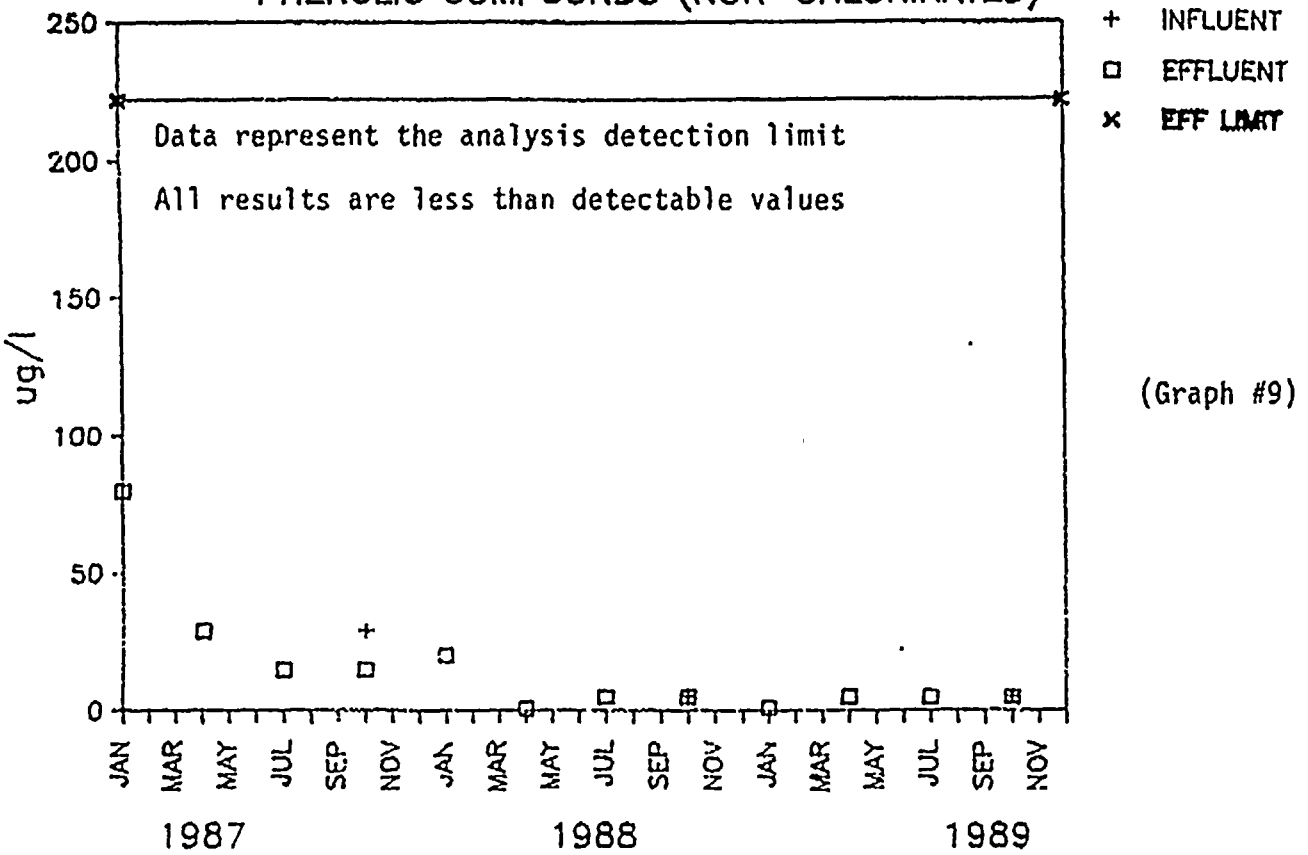


EFFLUENT

(Graph #8)

DISCHARGE 001

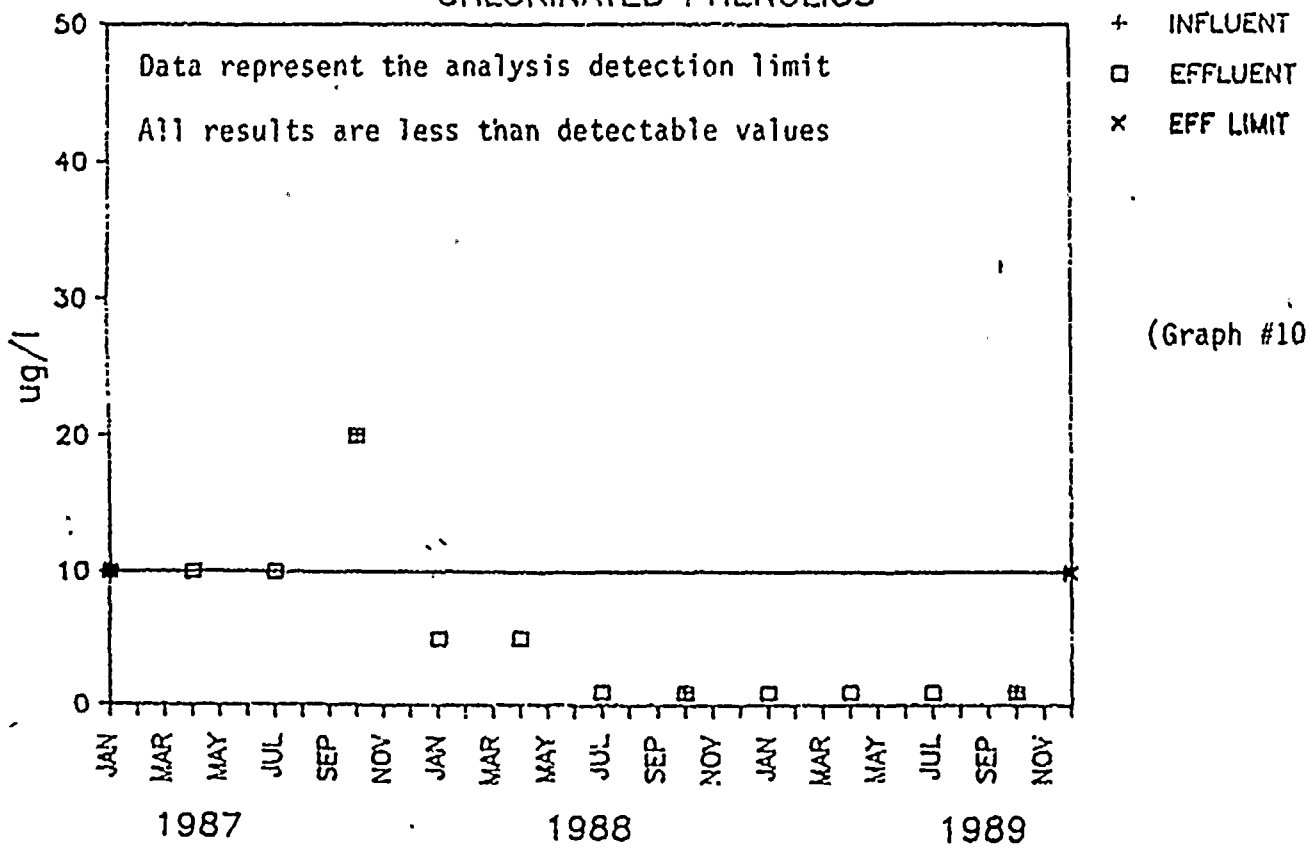
PHENOLIC COMPOUNDS (NON-CHLORINATED)



(Graph #9)

DISCHARGE 001

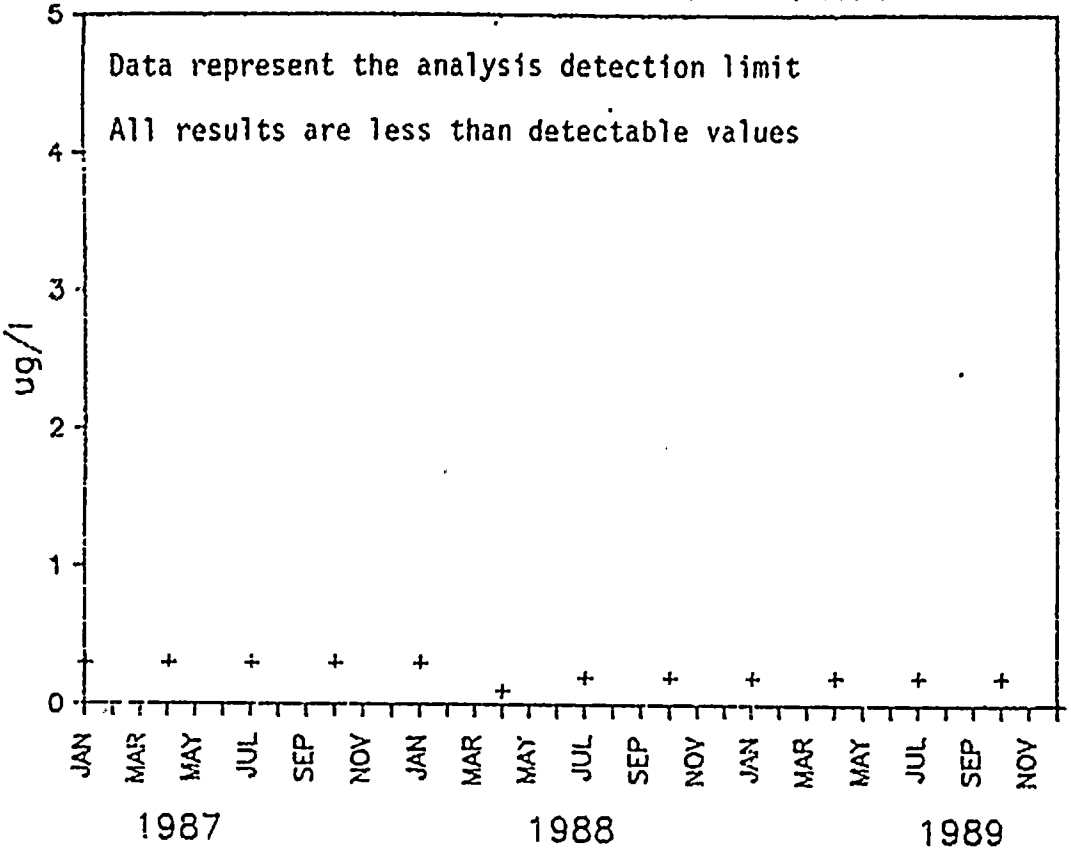
CHLORINATED PHENOLICS



(Graph #10)

DISCHARGE 001

POLYCHLORINATED BIPHENYLS

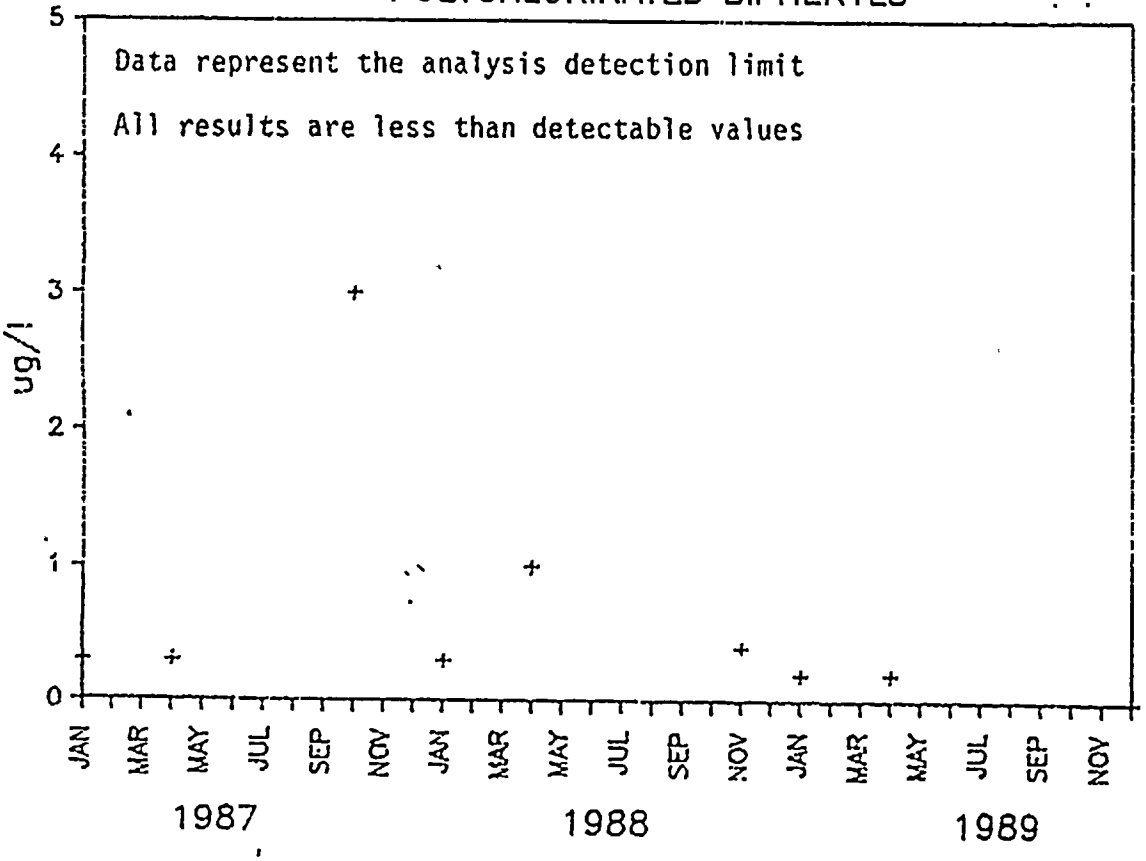


+ EFFLUENT

(Graph #11)

DISCHARGE 005

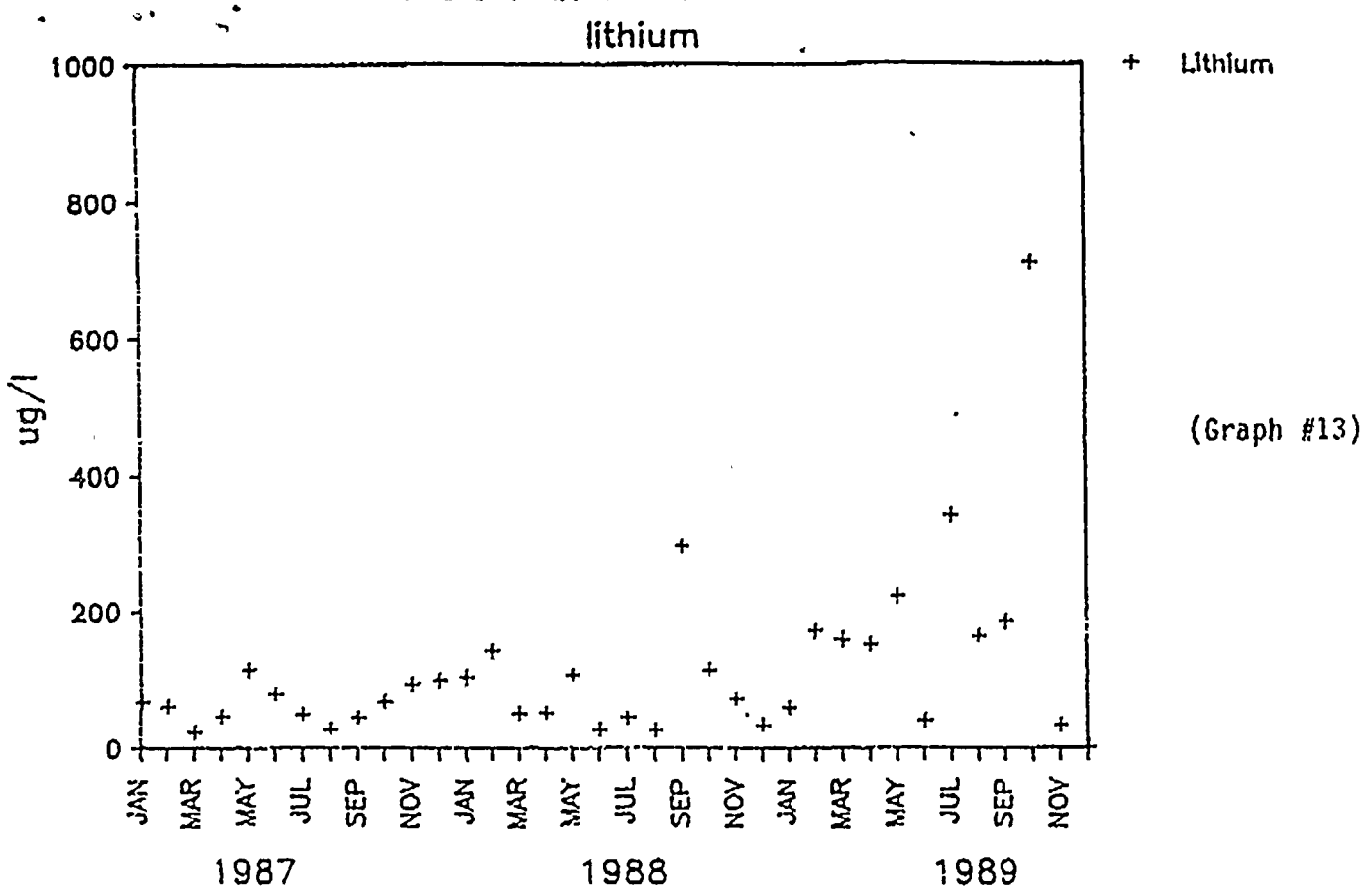
POLYCHLORINATED BIPHENYLS



+ PCB

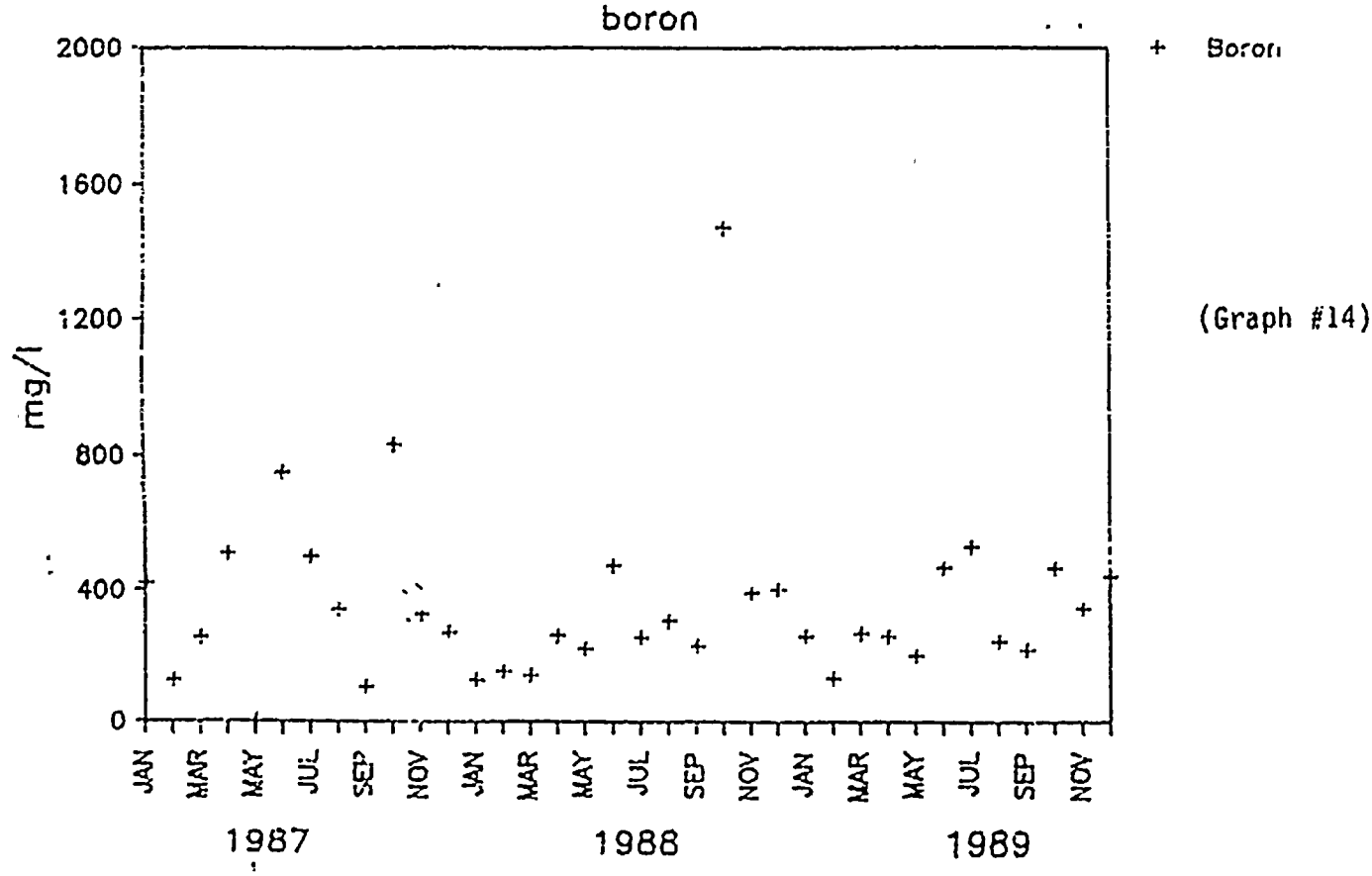
(Graph #12)

DISCHARGE 001D



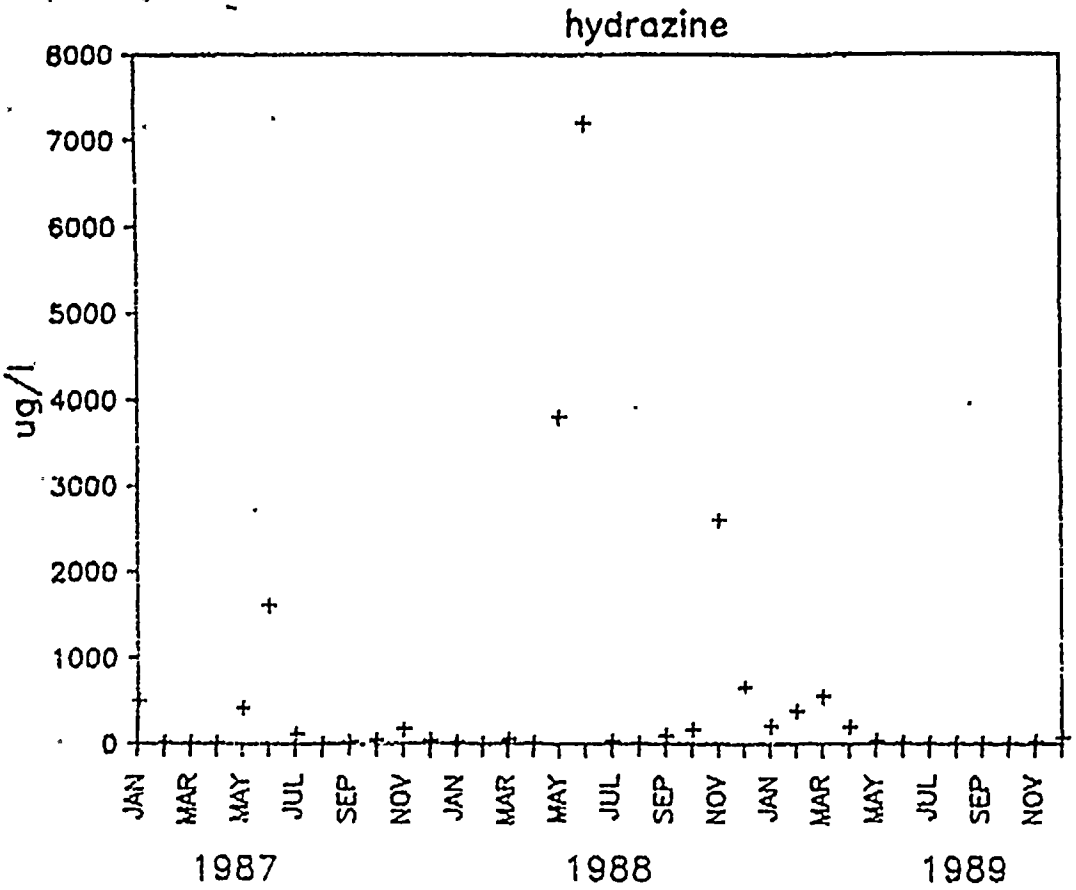
(Graph #13)

DISCHARGE 001D



(Graph #14)

DISCHARGE 001D



(Graph #15)