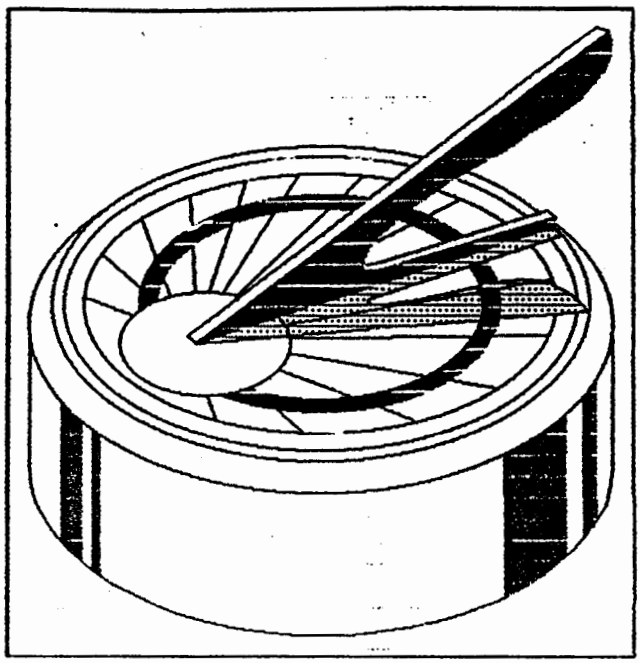

Town of Freeport, Maine "Water Quality Improvement Study"

Data, Reports, and Conclusions--July 27, 1994
(from test performed September 28, 1992 to July 23, 1993)

This study was funded by :
the Casco Bay Estuary Project
and the Town of Freeport.

Freeport--Water Quality Improvement Study--1992/1993

The purpose of this study was to identify the pollution sources entering Freeport's coastal waters. Water quality testing was conducted and its purpose was to eliminate those pollution sources and reopen the clam flats. The project sought out sources of pollution from sewage (septic systems, illegal hookups, and leaking sewer pipes) and from underground storage tanks. Our premise was that by testing waters at various locations in the fresh water tributary streams leading to marine water, stream segments where pollutants are likely to be entering could be identified and enforcement actions could be initiated. The information from the testing program would be used by local and state inspection and enforcement personnel to target their activities.

This report documents the test results and enforcement activities. The information from this program will be made available to the Department of Marine Resources, Department of Environmental Protection, and the Casco Bay Estuary Project. Throughout the program, evaluation of the effectiveness of enforcement has been made by follow-up testing of all identified sites where corrective action has been taken, and there has been an on-going evaluation of the testing program and enforcement activities by the Town Staff as well.

The process of testing began with an identification and selection of testing sites. The areas chosen were Flying Point, Staples Cove, Spar Cove, Collins Cove, Moore Point, Wolf Neck, and by the mouth of the Little River. (The specific site locations are listed in the Appendix of this report).

Testing was concentrated in the two areas where clamming was prohibited by the state and in the major drainage areas of these two prohibited sites. Areas of high population density, steep slopes, and road drainage were emphasized. In addition, some sampling was done at selected coastal locations where problems were identified. (Map of all areas and sites is included in the Appendix of this report). The Flying Point area had the most testing locations.

A Quality Assurance Plan was developed and approved by the Environmental Protection Agency. Tests for E Coli and NO3/NO2 were done first. When positive results were found, NH3 and Fecal Coli testing was then performed. 75 locations were tested with 36 of these locations identified as high priority sites.

The following parameters were tested: E Coliform (E Coli), Fecal Coliform bacteria (F Coli), Ammonia Nitrogen (NH3), Nitrate/Nitrite (NO3/NO2), and a volatile hydrocarbon screen (VHS) only if evidence of organic was present. All test samples (grabs) were then transported to the Laboratories of Wright-Pierce Engineers, 99 Main Street, Topsham, Maine, with the exception of VHS samples which were transported to the Northeast Laboratory, P.O Box 788, Waterville, Maine.

At the Labs, the following analytical procedures were performed in accordance with the attached Standard Operating Procedures (in Appendix):

Analyte	Matrix	Method	Detection Limit
E Coli	Stream Water	EPA Method	N/A
F Coli	Stream Water	Standard Method 9222D	N/A
NH3	Stream Water	EPA 350.2	0.1 m/l

NO3/NO2	Stream Water	EPA 353.3	0.01 mg/l
VHS	Stream Water	DEP 3.3.1.1	5 ppb

Some problems were encountered throughout this project, and the reason the extended time required to complete it was necessary, was that following the Quality Assurance plan of the EPA limited the sampling times to specific rainfall events such as : a minimum of .1" of rain must have fallen before sampling can occur, no sampling could occur after a maximum of .3" had fallen, there had to be a minimum of three dry days before the rain event, and the wet-weather depth had to exceed the dry-weather depth by a minimum of 1" at each location before sampling could occur. There was also a problem with the limitation of times when the laboratory would accept samples (not after 3:30 pm or on weekends), and the fact that the years of 1992-1993 were drier than normal.

Another problem came about with the issue of the **Volwat Data Program** by the State to the towns involved in the monitering. The initial disks that were issued accepted all data entered into them, but once entered, we could not produce any reports or graphs or for that matter, any hard copy at all. After numerous phone conversations with the programmer, Wayne Cormier, and Kathleen Leyden at the State Planning Office, a subsequent upgraded disk was issued. This disk was not much better than the previous one.

In the spring of 1994, Volwat was abandoned, and the **Cit/Mon*MAN Data Program** was issued. The data on Volwat could not be automatically transfered to Cit\Mon and so had to be re-entered manually. Again, we encountered the no-report situation, but through complaints to the state, an updated and corrected disk was issued in May, and for the most

part it worked well. However, graphic reports still could not be printed, and with a call to the programmer, Frederick Hoffman in Richmond, Virginia, it was discovered that an execution command had been omited from the program manual. The results can be seen in the appendix of this report.

The sampling of the chosen sites began on September 28, 1992 and ended on July 23, 1993. The monitors for this task were Denise Fournier in 1992 and Kenneth Kaminski in 1993. In the Appendix of this report are the data gathered for these grabs, in table and graph form, along with site locations and maps.

The problem areas found throughout the period of study have been eliminated in all but three locations. Those areas are Sites #2 (Byram Ave.), #7,7A, 7B (Cunningham Road), and #9, 9A (Burnett Road-Little River).

Site #2 on Byram Avenue, is an outward bound surface water drainage, running through a culvert that leads directly down to the Bay from the Flying Point peninsula. This drainage is fed by two converging areas across the road on which Sites #2A and 2B are located and further back are Sites # 2B-1 and 2B-2. This area consist of a large meadow surrounded by a few houses along Flying Point Road and Byram Avenue. When first sampled in May of 1993, Site #2 showed negative readings of both E Coli and F Coli, but by the July sampling, these readings were very high. Oddly though, other than #2, its related sites always came up negative. An exhaustive search of the entire area came up without any clues.(see detailed inset map). Fred Reeder , Freeport's Code Enforcement Officer, has been advised of the situation for further investigation.

Sites # 7, 7A, and 7B are culverts located on Cunningham Road. These sites have consistently showed high counts of colonies of both F Coli and E Coli. Upon extensive study of the area, it has been assumed that the only possible location of a source can be a brand new septic system that looms over the area where a stream is formed with rainfall. (see detailed inset map). This area has also been turned over to Mr. Fred Reeder for his assessment.

Sites #9 and 9A are located on Burnett Road at the Little River. This area is at the base of a large pasture that is the cattle feeding area of the University of Maine Agricultural Farm. The high counts of F Coli and E Coli here have been narrowed down to the obvious. Cattle manure from both droppings and manure piles at the top of the pasture are funneled down to the river in heavy and/or extensive rainfall. This problem has been addressed by Peter Ainsworth and David Whitten, members of the Freeport Conservation Commission, and the head of the school's farm, and has been resolved.

As of July 23, 1993, Site #1 (and its related sites), #3, #4, #5, #8, #10,#11, #13, #14, #15, #16 and 16A, indicated no traces of F Coli or E Coli. Also Pipe Sites #1, #2,and 2A, #3 and 3A, #4, #5 and 5A were clean.

There was a trace found at Sites #17, 17A, and #18 on June 10, 1993, during a very heavy and prolonged rainfall, but subsequent testing found no traces at all.

The standards of testing and sampling as set forth by the U.S.E.P.A. were followed exactly and the sampling data sheets can be found on file at the office of Jackie Cohen, Freeport's Town Planner.

In conclusion, there was very little contamination to be found over the testing period at the areas and sites in question. The contamination that was found was traced to its source and eliminated, or as described above, is now under close scrutiny and evaluation. In July, 1994, the area West of Lower Flying Point was conditionally opened for clamming after extensive salt water testing. The tests results of this study indicate that the fresh water entering the salt water in this area is of high quality (except for one location, which will be resolved), so the marine environment's acceptable water quality level will be maintained.

Ken Kaminski
Sample Collections Manager

Quality Control:

Field duplicates: Duplicate grabs will be made for every 10 station sampled. These will be sent as fictitious stations to the lab.

Quality control standards:

For NO_3/NO_2 and NH_3, the quality control requires a calibration curve (3 or more points). A blank is run, then a standard reference material to set a point on the calibration curve. Then, every ten samples, a continuing calibration check is run. If the check is outside of 20% of the standard deviation corrective action is taken. Corrective action is a restandardization of the process and reanalysis of last 10 samples.

For F coli and E coli, dilution blanks are run at the beginning and end of each set of samples. If there are 10 or more samples, a dilution blank is run in the middle of the sample run.

For VHS, the quality control requires a calibration curve (minimum 4 points plus blank). A method blank and daily cocktail mix are run. In addition, a gasoline standard is run daily to set a point on the calibration curve. Duplicate analyses are done every 20 samples. Spiked samples should be run at 10% intervals (or every 10 samples, whichever is less).

Project Fiscal Information:

Salary for sample collection		4,400
Laboratory Analysis		3,000
	Total	7,400

Source of Funds:

Casco Bay Estuary Project		5,550
Town of Freeport		1,850
	Total	7,400

DRAFT

U. S. Environmental Protection Agency
Region I

Guidance for Quality Assurance Project Plans for Environmental Monitoring Projects

ABRIDGED FORM[1]

D R A F T

These instructions describe the basic format for a Quality Assurance Project Plan (QAPjP). Individual sections may be enlarged as circumstances warrant. The QAPjP must be submitted for approval at least 30 days prior to the scheduled project starting date.

1. **Title page.**
   Show the following information on the top half of the page:
   -- the full name of the project.
   -- who wrote the QAPjP (the agency and the preparer).
   -- the funding agency (agencies).
   -- the date the QAPjP was written.

   On the bottom half of the page provide the names, agencies, and phone numbers of the following officials, leaving space for their signatures and dates. (You may add more names if you desire.)
   -- Project Officer/Principal Investigator
   -- Project Quality Assurance Officer, if any.*
   -- EPA Project Officer
   -- Carol M. Wood, EPA Quality Assurance Officer, 617-860-4316.

   *The person employed by the Principal Investigator to be responsible for the quality of all monitoring data. For small projects, these duties may be assumed by the Principal Investigator.

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[1]This QAPjP guidance is intended to be used in place of the "QAMS 005/80" guidance in those instances in which the total expenses (from all sources) for a project are less than $25,000. The use of this guidance for other projects will be determined on a case-by-case basis by the Region I Quality Assurance Office.

This guidance was developed by the Region I Quality Assurance Office and was adapted from a similar document in use in EPA Region II.

ART CLARK
US EPA – QA Office
60 Westview St.
Lexington, MA 02173-3185
617-860-4374

Abridged QAPjP, continued

7. **Sampling Procedures and Chain of Custody.**
For each analyte and each matrix, describe the procedure used to take the sample. If EPA protocols are followed, just reference them.

How will samples be stored and transported to the laboratories?

If the samples are to be used for legal purposes, describe how sample custody will be documented, i.e. describe the chain of custody procedures to be used.

8. **Analytical Procedures.**
All analytical methods used in the project must be referenced or submitted with the Project Plan. (This includes analytical methods performed in the field.) Give the following information in tabular form:
-- Analyte/parameter
-- Sample matrix
-- Analytical method*

*If the method has been published by EPA or in Standard Methods, simply cite the method, e.g. EPA method 200.7. Otherwise, include a copy of the method with the Project Plan.

9. **Quality Control Samples.**
In order to demonstrate that the sampling and analysis procedures have produced data of known quality, quality control samples must be analyzed periodically. A suggested frequency is 10%. The following types of QC samples are typically done:
-- Field duplicates.
-- Lab duplicates.
-- Spiked samples.
-- Trip blanks (required for VOAs; recommended for all).
-- Laboratory blanks.
-- Equipment blanks.

Please describe what QC samples will be taken/analyzed for this project and at what frequency. (We recommend frequencies of from 5 to 10%.)

Define your acceptance criteria for QC samples. (For example, recoveries of spiked samples should be between ___% and ___%; duplicate values should be within ___%; blank values must not exceed ___ppb.)

10. **Project Fiscal Information -- Optional.**

FREEPORT WATER QUALITY IMPROVEMENT PROJECT

STANDARD OPERATING PROCEDURES

Fecal Coliform & E. Coli

Analytical Method: Membrane Filtration

* Sterile polypropylene container (100 ml.)
* Add sodium thiosulfate to container if chlorine will be present in the sample.
* Sample by direct grab into container without pre-rinsing
* Sample with top of container facing upstream
* Leave about 1-inch airspace at top of container for mixing
* Secure cap with tape if necessary
* Cool to 4° C
* Maximum holding time is six hours (Transport to lab within 6 hours after collection of first sample)

Ammonia as Nitrogen pH - 2

Analytical Method: EPA 350.2 (Nesslerization or titration)

* Polypropylene container (one-liter)
* Collect with opening of collection container facing upstream
* Preserve to pH < 2 with sulfuric acid (H_2SO_4) (Acid may be added to container prior to sampling) About 2 ml. of 26% may be sufficient, however -
* Verify pH with pH paper - Pour some of preserved sample into container's cap. Pour over pH paper. If necessary, add more acid and recheck pH
* Cool to 4°C
* Maximum holding time is 28 days

Nitrate-Nitrogen

Analytical Method: EPA 353.1 (Cadmium reduction, Automated hydrazine)

* Polypropylene container (250 ml.)
* Collect with opening of collection container facing upstream
* Cool to 4°C
* Maximum holding time is 48 hours from collection time

Volatile Organic Compounds

Analytical Method: Headspace screening only

* Two 40-ml volatile organic vials
* Place 4 drops concentrated HCl in vial prior to sampling
* Fill vial avoiding turbulence if possible, leaving no air bubbles in container after cap is in place
* Cool to 4°C
* Maximum holding time is 14 days

Conductivity & Temperature

Analytical Method: conductivity/temperature meter

* Check calibration of conductivity meter by comparing reading with a standard solution. Record standard and meter results on Sample Data Sheet
* Compare meter's temperature reading with an NBS thermometer. Record thermometer and meter results on sample data sheet
* Conductivity and temperature readings are to be taken at the sample site. Either place the probe in the stream or rinse a plastic or glass container three times with the water that will be sampled, collect the sample, immerse the probe in the sample, record the readings.
* Rinse probes with distilled water between samples
* Check conductivity/temperature meter calibrations at beginning and end of each sampling day.

General Procedures

* Use water-proof ink for entries

* Each sample container will be labelled with the date and time of collection, parameter to be analyzed, and sample bottle identification number

* Check rain gage in vicinity of sample sites both before and after sampling during a rain event. Record data.

* Indicate on Sample Data Sheet if sample was collected from a pipe or in a stream

* Each sample is to have a designated sample location and a number for each container

* The wet-weather depth should exceed the dry-weather depth by a minimum of one inch at each location.

* Wet-weather sampling should begin in developed areas (Concord Gully and Frost Gully) before 0.3 inches of rain has fallen as indicated by a rain gage near the sites, in hopes of sampling the "first flush" of stormwater with the highest levels of contaminants.

* In agricultural areas, such as Kelsey Brook, the time to initiate sampling may not be as critical. Sampling should begin before one-inch of rain has accumulated in a rain gage near the sites.

* There should be a minimum of three dry days prior to sampling for either a dry or wet weather event. The more dry weather days that pass prior to sampling, the better.

* Note the last day and amount of rainfall that occurred prior to the sampling event.

Quality Assurance Procedures

* Fill out Sample Data Sheets completely, making additional entries as needed to document the sampling event/conditions or variations from the project's written standard operating procedures

* Submit completed Chain-of-Custody form to laboratory with samples. Sampler(s) should retain a copy of the form.

* Calibrate & check meters at beginning and end of sampling day. Check during the day if possible. Document in log books on sampling sheets.

* Samplers will document all information pertaining to the project in log books that should be submitted & kept with project's records.

* Duplicate samples will be collected at least once per sampling day. (USEPA recommends a duplicate for every tenth sample)

* Other than the sample containers, any collection containers (such as a bucket) will be rinsed three times with the stream water (or water from which the sample will be collected) before collecting the sample.

* The laboratory results will include for each sample and parameter analyzed: date and time of analysis (time that coliform analysis is initiated is very important); name of analyst; analytical method used; quality control information (blanks, lab duplicate results, spike recoveries); and, the results.

* Laboratory quality control information (blanks, lab duplicates, spike recoveries) will be used in addition to field information to determine useability of the data.

FREEPORT WATER QUALITY IMPROVEMENT PROJECT

Freeport, ME

Sample Collection Sheet

Sampler(s):_____SampleDate/Time_____am/pm

Sample Station#/Location_____

WEATHER: Air Temp _____°C/°F Rain Sunny Cloudy Partly Cloudy

Rainfall: Date/Time Began_____ Ended_____

Rain gage: Location_____
Date/Time_____Reading_____inches
Date/Time_____ Reading_____inches

VISUAL OBSERVATIONS:

Flow depth:_____ Stream Pipe

Odor: None Sewage Sulfur Oil Gas Rancid/Sour Other_____

Color: Clear Yellow Brown Green Red Grey Other_____

Clarity: Clear Cloudy/Turbid Opaque

Floatables: None Oil Sheen Sewage Other_____

Deposits/Stains: None Sediment Oily Describe_____

Instream Vegetation: None Moss Marshy Leaf Litter
Extent_____

IN-FIELD ANALYSIS: In-Stream In-Container

Conductivity: _____umhos/cm Temperature: _____°C
Equipment: Meter/Type_____

SAMPLE COLLECTION: Sample Depth_____

Parameters	Container #	Preservation/Comments
Fecal & E.Coli.	_____	_____
Ammonia	_____	_____
Nitrate-N	_____	_____
Volatile Org.	_____	_____
_____	_____	_____
_____	_____	_____

TO: Jackie Cohen, Freeport Town Planner
Peter Ainsworth, Chairman, Freeport Conservation Commission
David Whitten, Freeport Conservation Commission
Ryan Doherty, Chairman, Freeport Shellfish Commission

FROM: Ken Kaminski, Sample Collection Manager

DATE: December 7, 1993

RE: Freeport Water Quality Improvement Study

Attached is the data for sites SCS#9, SCS#9A, and SCS#10, on all samplings taken between May 19, and July 23, 1993. Also included is the data of all samplings taken between September 28, and November 24, 1992, by Denise Fournier along with a current list of site locations, descriptions, and maps of these areas as of December 7, 1993. Your attention is called to site SCS#10. This site had high counts in 1992, but as of May 1993, the test proved negative. Only one grab was made at this location in 1993, but the flow, and clarity have been visually observed throughout the summer with no detrimental observations noted. If there are any questions or comments, please feel free to contact me at 865-4122.

Thank you,

Ken

FREEPORT-WATER QUALITY IMPROVEMENT STUDY--1992/1993

SITE NUMBER AND (LOCATION)	SCS#9 (Little River, off Burnett Rd-Drainage ditch, which drains an upper pasture)	SCS#9A (Around the point from SCS#9, heading upriver)	SCS#10 (Wolf Neck Rd.,drive past park entrance, continue about 6/10 mile. At cluster of mailboxes on right, turn left onto dirt road. Bear right twice. Near end of road, large black pipe [culvert] which drains pasture on right)
SAMPLING DATES	5/21/93-7/20/93	11/5/92-7/20/93	11/5/92-11/11/92-11/23/92-6/19/93
FECAL COLI	405/1180	160/TNTC	520/TNTC/TNTC/TNTC
E COLI	403/1620	60/TNTC	120/348/TNTC/0
NITRATE/NITRITE-N (NO2/NO3)	<0.01/0.01	<0.01/0.10	<0.01/<0.01/0.01/0.02
AMMONIA-N (NH3)	0.10/0.2	- - /0.2	-- /0.20/<0.1/0.14/0.2
AIR TEMPERATURE (C)	11/18	8.5/17.5	9/5/7/12
WATER CONDUCTIVITY	1100/380	2550/410	270/320/210/270

STANDARDS (EPA-MeDEP)

F COLI = <14 COLONIES PER MIL.
E COLI = <14 COLONIES PER MIL.
NO2/NO3 = .06-.10
NH3 = .03-.18

Porter Landing
Barto Island
Cushing Briggs
Weston
Wolf
Neck
Burnetto
Road
Flying Point Cem
Flying Point Neck
Lower Flying Point Road
Indian Island
Swan
Johns Point
Flying Point
Sow and Pigs
Pettingill Island
Moore Point
Ledge
Arrasekeet
Wolf River
Tidal Flat
P1W
P3
P5
P5A
SCS#18
SCS#17
SCS#16
SCS#9
SCS#3
SCS#1, 1A
SCS#5
SCS#6
SCS#7, 7A, 7B
SCS#8
SCS#10
#11
#12
13B

TO: Jackie Cohen, Freeport Town Planner
Peter Ainsworth, Chairman, Freeport Conservation Commission
David Whitten, Freeport Conservation Commission
Ryan Doherty, Chairman, Freeport Shellfish Commission

FROM: Ken Kaminski, Sample Collection Manager

DATE: September 13, 1993

RE: Freeport Water Quality Improvement Study

Attached is the data on all samplings taken between May 19, and July 23, 1993. Also included is the data of all samplings taken between September 28, and November 24, 1992, by Denise Fournier along with a current list of Site locations and descriptions, maps and a summary of probable problem areas as of September 13, 1993. If there are any questions or comments, please feel free to contact me at 865-4122.

Thank you,

Ken

TO: Jackie Cohen, Freeport Town Planner
Peter Ainsworth, Chairman, Freeport Conservation Commission
David Whitten, Freeport Conservation Commission
Ryan Doherty, Chairman, Freeport Shellfish Commission

FROM: Ken Kaminski, Sample Collection Manager

DATE: August 30, 1993

RE: Freeport Water Quality Improvement Study--Testing Standards.

After much research, I have listed below the standards for the testing that has been done for the Freeport Water Quality Improvement Study. The data shown are the parameters used by the State of Maine Department of Environmental Protection and the Casco Bay Estuary Project. The sources of this information has come from: Gladys DeWick of Wright-Pierce Labs, Hal Winters of the Division of Marine Resources, Walter Foster of the Division of Marine Resources Biological Labratories at West Boothbay, and Lee Dauggett of the Department of Environmental Protection in Portland and the Casco Bay Estuary Project.

If you have any questions or comments, please feel free to contact me at 865-4122, anytime.

TEST	STANDARDS
E COLI	< 14 COLONIES PER MIL
F COLI	< 14 COLONIES PER MIL
NO2 (NITRATE) / NO3 (NITRITE)	.06--.10
AMMONIA--NH3	.03--.18

Thank you,

Ken

FREEPORT WATER QUALITY IMPROVEMENT STUDY
SUMMARY OF POSSIBLE PROBLEM LOCATIONS
AS OF SEPTEMBER 13, 1993

FECAL COLIFORM–(STANDARD / <14 COLONIES PER ML)

SITE	READING	LOCATION
SCS#1A	20	LOWER FLYING POINT-2 LOTS AFTER WEST SHORE DRIVE-WHERE STREAM MEETS FLATS
SCS#2	1380	BYRAM AVENUE-CULVERT ON LEFT
SCS#4	53	WEST SHORE DRIVE-DRAINAGE DITCH ON LEFT
SCS#5	420	FLYING POINT RD-MAILBOX #210
SCS#7	1245 /220	CUNNINGHAM ROAD-2nd CULVERT IN
SCS#7A	1780	CUNNINGHAM ROAD-1st CULVERT IN
SCS#7B	1920	CUNNINGHAM ROAD-STRAIGHT AT FORK-ON LEFT
SCS#9	405 / 1180	LITTLE RIVER-OFF BURNETT ROAD
SCS#9A	TNTC	LITTLE RIVER-UPRIVER OF SCS#9-AROUND POINT
SCS#15	108	SPAR COVE ROAD-MAILBOX #25
SCS#17A	340	SO. FREEPORT ROAD-MAILBOX #59-WHERE STREAM MEETS FLATS
SCS#17	25	SO. FREEPORT ROAD-MAILBOX #59
SCS#18	25	RANDALL ROAD-WHERE STREAM MEETS FLATS

E COLIFORM-(STANDARD / <14 COLONIES PER ML)

SCS#2	1240	SAME AS ABOVE
SCS#4	23	SAME AS ABOVE
SCS#7	1235/265	SAME AS ABOVE
SCS#7A	1740	SAME AS ABOVE
SCS#7B	2400	SAME AS ABOVE
SCS#9	403	SAME AS ABOVE
SCS#9A	TNTC	SAME AS ABOVE
SCS#15	83	SAME AS ABOVE
SCS#17A	245	SAME AS ABOVE
SCS#17	40	SAME AS ABOVE
SCS#18A	25	RANDALL ROAD-CULVERT ON RIGHT
SCS#18	20	SAME AS ABOVE

NO3/NO2-NITRATE/NITRITE-N-(STANDARD / .06-.10)

SITE #	READING	LOCATION
SCS#2	0.19	SAME AS ABOVE
SCS#4	3.18	SAME AS ABOVE
SCS#7	1.13	SAME AS ABOVE
SCS#15	0.16	SAME AS ABOVE
SCS#18	1.00	SAME AS ABOVE

NH3-AMMONIA-N-(STANDARD / .03-.18)

SCS#4	0.39	SAME AS ABOVE
SCS#7	0.28	SAME AS ABOVE
SCS#7A	0.35	SAME AS ABOVE
SCS#13	0.64	WINSLOW COVE ROAD-MAILBOX #64
SCS#18	1.20	SAME AS ABOVE

FREEPORT–WATER QUALITY IMPROVEMENT STUDY--1992

SAMPLING DATES AND INFORMATION

SITE	DATE-->	9/28/92	10/16/92	10/30/92	11/05/92	11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		G*-1	G*-1	G*-1	G*-1	X	X	X	X
SCS#1A		X	G*-1A	X	X	X	X	X	X
SCS#1B		X	X	X	X	G*-1B	X	G*-1B	X
SCS#1B-1		X	X	X	X	G*-1B1	X	G*-1B1	X
SCS#1B-2		X	X	X	X	G*-1B2	X	G*-1B2	X
SCS#2		G*-2	G*-2	X	G*-2	G*-2	X	G*-2	X
SCS#2A		X	X	X	G*-2A	X	X	G*-2A	X
SCS#2B		X	X	X	X	G*-2B	X	G*-2B	X
SCS#2B-1		X	X	X	X	X	X	G*-2B1	X
SCS#2B-2		X	X	X	X	X	X	G*-2B2	X
SCS#3		X	X	X	G*-3	X	X	X	G*-3
SCS#4		X	X	X	X	X	X	X	X
SCS#5		X	X	X	X	X	X	X	X
SCS#6		X	X	X	X	X	X	X	X
SCS#7		X	X	X	G*-7	G*-7	X	X	X
SCS#7A		X	X	X	G*-7A	G*-7A	X	G*-7A	X
SCS#7B	(NEW)	X	X	X	X	X	X	X	X
SCS#8		X	X	X	X	X	X	X	G*-8
P#5		X	X	X	X	X	X	X	X
P#5A		X	X	X	G*-P5A	X	X	X	G*-P5A
SCS#9		X	X	X	X	X	X	X	X
SCS#9A		X	X	X	G*-9A	X	X	X	X
SCS#10		X	X	X	G*-10	G*-10	X	G*-10	X
SCS#11		X	X	X	X	X	X	X	G*-11
SCS#12		X	X	X	X	X	X	X	X
SCS$13		X	X	X	X	X	G*-13	X	X
SCS#13A		X	X	X	X	X	G*-13A	X	X
SCS#14		X	X	X	X	X	X	X	X
SCS#15		X	X	X	X	X	X	X	X
SCS#16A		X	X	X	X	X	X	X	X
SCS#16		X	X	X	X	X	X	X	X
SCS#17A		X	X	X	X	X	X	X	X
SCS#17		X	X	X	X	X	X	X	X
SCS#18A		X	X	X	X	X	X	X	X
SCS#18		X	X	X	X	X	X	X	X
P#3		X	X	X	X	X	X	X	X
P#3A		X	X	X	X	X	X	X	X
P#4		X	X	X	X	X	X	X	X
P#1		X	X	X	X	X	X	X	X
P#2		X	X	X	X	X	X	X	X
P#2A		X	X	X	X	X	X	X	X

KEY--> G-0/00= GRAB + SAMPLE #
G*= LAB REPORT BACK

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1993

SAMPLING DATES AND INFORMATION

SITE	DATE-->	5/19/93	5/21/93	5/23/93	5/28/93	6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		G*-1/519	X	X	X	X	X	X	X	X
SCS#1A		G*-2/519	X	X	X	X	X	X	X	X
SCS#1B		D	D	D	D	D	D	D	X	X
SCS#1B-1		D	D	D	D	D	D	D	X	X
SCS#1B-2		D	D	D	D	D	D	D	X	X
SCS#2		G*-3/519	X	X	X	X	X	X	G*-3/720	X
SCS#2A		D	D	D	D	D	D	D	X	X
SCS#2B		D	D	D	D	D	D	D	X	X
SCS#2B-1		D	D	D	D	D	D	D	X	X
SCS#2B-2		D	D	D	D	D	D	D	X	X
SCS#3		D	D	D	D	D	D	D	X	X
SCS#4		D	D	D	D	G*-1/61	X	X	X	X
SCS#5		G*-4/519	X	X	X	X	X	X	X	X
SCS#6		D	D	D	D	D	D	D	X	X
SCS#7		D	D	D	D	G*-3/61	X	X	G*-2/720	X
SCS#7A		D	D	D	D	G*-2/61	X	X	X	X
SCS#7B	(NEW)	-	-	-	-	-	-	-	G*-1/720	X
SCS#8		D	D	D	D	D	D	D	X	X
P#5		D	D	D	G*-1/528	X	X	X	X	X
P#5A		D	D	D	D	D	D	D	X	X
SCS#9		D	G*-1/521	X	X	X	X	X	G*-4/720	X
SCS#9A		D	D	D	D	D	D	D	G*-5/720	X
SCS#10		G*-5/519	X	X	X	X	X	X	X	X
SCS#11		-	D	D	D	G*-4/61	X	X	X	X
SCS#12		-	D	D	D	D	D	-	X	X
SCS#13		-	G*-2/521	X	X	X	X	X	X	X
SCS#13A		-	D	D	D	D	D	D	X	X
SCS#14		-	G*-3/521	X	X	X	X	X	X	X
SCS#15		-	G*-4/521	X	X	X	X	X	X	X
SCS#16A		-	-	-	-	-	D	G*-4/610	X	X
SCS#16		-	-	-	-	-	D	G*-5/610	X	X
SCS#17A		-	-	-	D	D	D	G*-2/610	X	X
SCS#17		-	-	-	D	D	D	G*-3/610	X	X
SCS#18A		-	-	-	D	D	D	G*-1/610	X	X
SCS#18		-	-	-	G*-2/528	X	X	X	X	X
P#3		-	-	-	-	-	-	D	X	G*-2/723
P#3A		-	-	-	-	-	-	D	X	G*-3/723
P#4		-	-	-	-	-	-	D	X	G*-6/723
P#1		-	-	-	-	-	-	D	X	G*-1/723
P#2		-	-	-	-	-	-	D	X	G*-4/723
P#2A		-	-	-	-	-	-	D	X	G*-5/723

KEY--> G-0/00= GRAB + SAMPLE #
G*= LAB REPORT BACK

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1992

SITE	DATE-->	*E 9/28/92	COLIFO 10/16/92	RM 10/30/92	11/05/92	11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		470	30	30	180	-	-	-	-
SCS#1A		-	0	-	-	-	-	-	-
SCS#1B		-	-	-	-	70	-	1160	-
SCS#1B-1		-	-	-	-	123	-	1340	-
SCS#1B-2		-	-	-	-	0	-	1100	-
SCS#2		110	0	-	40	18	-	263	-
SCS#2A		-	-	-	0	-	-	620	-
SCS#2B		-	-	-	-	73	-	45	-
SCS#2B-1		-	-	-	-	-	-	35	-
SCS#2B-2		-	-	-	-	-	-	40	-
SCS#3		-	-	-	0	-	-	-	5
SCS#4		-	-	-	-	-	-	-	-
SCS#5		-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	0	-	-	-
SCS#7A		-	-	-	40	10	-	600	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	-
SCS#8		-	-	-	0	-	-	-	435
P#5		-	-	-		-	-	-	-
P#5A		-	-	-	0	-	-	-	0
SCS#9		-	-	-		-	-	-	-
SCS#9A		-	-	-	60	-	-	-	-
SCS#10		-	-	-	120	348	-	TNTC	-
SCS#11		-	-	-	-	-	-	-	5
SCS#12		-	-	-	-	-	-	-	-
SCS#13		-	-	-	-	-	0	-	-
SCS#13A		-	-	-	-	-	0	-	-
SCS#14		-	-	-	-	-	-	-	-
SCS#15		-	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	-	-
SCS#16		-	-	-	-	-	-	-	-
SCS#17A		-	-	-	-	-	-	-	-
SCS#17		-	-	-	-	-	-	-	-
SCS#18A		-	-	-	-	-	-	-	-
SCS#18		-	-	-	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-
P#3A		-	-	-	-	-	-	-	-
P#4		-	-	-	-	-	-	-	-
P#1		-	-	-	-	-	-	-	-
P#2		-	-	-	-	-	-	-	-
P#2A		-	-	-	-	-	-	-	-
					-	-	-	-	-

KEY--> *COLON IES PER 100 ML
** DRY W EATHER SAMPLE S

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1993

SITE	DATE-->	*E COLIFO RM 5/19/93	5/21/93	5/23/93	5/28/93	6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		0	-	-	-	-	-	-	-	-
SCS#1A		5	-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-	-
SCS#2		0	-	-	-	-	-	-	1240	-
SCS#2A		-	-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	-	-	-
SCS#2B-2		-	-	-	-	-	-	-	-	-
SCS#3		-	-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	23	-	-	-	-
SCS#5		-	-	-	0	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	1235	-	-	265	-
SCS#7A		-	-	-	-	1740	-	-	-	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	2400	-
SCS#8		-	-	-	-	-	-	-	-	-
P#5		-	-	-	0	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-	-
SCS#9		-	403	-	-	-	-	-	1620	-
SCS#9A		-	-	-	-	-	-	-	TNTC	-
SCS#10		0	-	-	-	-	-	-	-	-
SCS#11		-	-	-	-	0	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-	-
SCS#13		-	0	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-	-
SCS#14		-	3	-	-	-	-	-	-	-
SCS#15		-	83	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	0	-	-
SCS#16		-	-	-	-	-	-	0	-	-
SCS#17A		-	-	-	-	-	-	245	-	-
SCS#17		-	-	-	-	-	-	40	-	-
SCS#18A		-	-	-	-	-	-	25	-	-
SCS#18		-	-	-	20	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-	0
P#3A		-	-	-	-	-	-	-	-	0
P#4		-	-	-	-	-	-	-	-	0
P#1		-	-	-	-	-	-	-	-	0
P#2		-	-	-	-	-	-	-	-	0
P#2A		-	-	-	-	-	-	-	-	0

KEY--> *COLON IES PER 100 ML
** DRY W EATHER SAMPLE S

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1992

SITE	DATE-->	*FECAL COLIFORM 9/28/92	10/16/92	10/30/92	11/05/92	11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		-	-	25	-	-	-	-	-
SCS#1A		-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-
SCS#2		-	-	-	-	38	-	-	-
SCS#2A		-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	12.5	-
SCS#2B-2		-	-	-	-	-	-	15	-
SCS#3		-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	-	-	-	-
SCS#5		-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	-	-	410	-
SCS#7A		-	-	-	-	-	-	427	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	-
SCS#8		-	-	-	-	-	-	-	-
P#5		-	-	-	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-
SCS#9		-	-	-	-	-	-	-	-
SCS#9A		-	-	-	160	-	-	-	-
SCS#10		-	-	-	-	520	-	TNTC	-
SCS#11		-	-	-	-	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-
SCS$13		-	-	-	-	-	0	-	-
SCS#13A		-	-	-	-	-	0	-	-
SCS#14		-	-	-	-	-	-	-	-
SCS#15		-	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	-	-
SCS#16		-	-	-	-	-	-	-	-
SCS#17A		-	-	-	-	-	-	-	-
SCS#17		-	-	-	-	-	-	-	-
SCS#18A		-	-	-	-	-	-	-	-
SCS#18		-	-	-	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-
P#3A		-	-	-	-	-	-	-	-
P#4		-	-	-	-	-	-	-	-
P#1		-	-	-	-	-	-	-	-
P#2		-	-	-	-	-	-	-	-
P#2A		-	-	-	-	-	-	-	-

KEY--> * COLONIES PER 100 ML
** DRY WEATHER SAMPLES

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1993

SITE	DATE-->	*FECAL 5/19/93	COLIFO 5/21/93	RM 5/23/93	5/28/93	6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		0	-	-	-	-	-	-	-	-
SCS#1A		20	-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-	-
SCS#2		0	-	-	-	-	-	-	1380	-
SCS#2A		-	-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	-	-	-
SCS#2B-2		-	-	-	-	-	-	-	-	-
SCS#3		-	-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	53	-	-	-	-
SCS#5		420	-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	1245	-	-	220	-
SCS#7A		-	-	-	-	1780	-	-	-	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	1920	-
SCS#8		-	-	-	-	-	-	-	-	-
P#5		-	-	-	0	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-	-
SCS#9		-	405	-	-	-	-	-	1180	-
SCS#9A		-	-	-	-	-	-	-	TNTC	-
SCS#10		0	-	-	-	-	-	-	-	-
SCS#11		-	-	-	-	0	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-	-
SCS$13		-	10	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-	-
SCS#14		-	3	-	-	-	-	-	-	-
SCS#15		-	108	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	0	-	-
SCS#16		-	-	-	-	-	-	0	-	-
SCS#17A		-	-	-	-	-	-	340	-	-
SCS#17		-	-	-	-	-	-	25	-	-
SCS#18A		-	-	-	-	-	-	10	-	-
SCS#18		-	-	-	25	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-	0
P#3A		-	-	-	-	-	-	-	-	0
P#4		-	-	-	-	-	-	-	-	0
P#1		-	-	-	-	-	-	-	-	0
P#2		-	-	-	-	-	-	-	-	0
P#2A		-	-	-	-	-	-	-	-	0

KEY--> * COLONIES PER 100 ML
** DRY WEATHER SAMPLES

FREEPORT–WATER QUALITY IMPROVEMENT STUDY–1992

		*NO3/ NO2– NITRATE/NITRITE-N							
SITE	DATE-->	9/28/92	10/16/92	10/30/92	11/05/92	11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		1.82	5.75	0.95	<0.01	-	-	-	-
SCS#1A		-	0.42	-	-	-	-	-	-
SCS#1B		-	-	-	-	0.09	-	0.46	-
SCS#1B-1		-	-	-	-	0.07	-	0.46	-
SCS#1B-2		-	-	-	-	0.06	-	0.51	-
SCS#2		0.42	0.44	-	0.06	0.06	-	0.69	-
SCS#2A		-	-	-	0.10	-	-	0.41	-
SCS#2B		-	-	-	-	0.01	-	0.75	-
SCS#2B-1		-	-	-	-	-	-	0.09	-
SCS#2B-2		-	-	-	-	-	-	0.11	-
SCS#3		-	-	-	<0.01	-	-	-	0.16
SCS#4		-	-	-	-	-	-	-	-
SCS#5		-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-
SCS#7		-	-	-	<0.01	0.01	-	-	-
SCS#7A		-	-	-	<0.01	<0.01	-	0.02	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	-
SCS#8		-	-	-	-	-	-	-	0.05
P#5		-	-	-	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	0.42
SCS#9		-	-	-	-	-	-	-	-
SCS#9A		-	-	-	<0.01	-	-	-	-
SCS#10		-	-	-	<0.01	<0.01	-	0.01	-
SCS#11		-	-	-	-	-	-	-	0.64
SCS#12		-	-	-	-	-	-	-	-
SCS$13		-	-	-	-	-	0.01	-	-
SCS#13A		-	-	-	-	-	<0.01	-	-
SCS#14		-	-	-	-	-	-	-	-
SCS#15		-	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	-	-
SCS#16		-	-	-	-	-	-	-	-
SCS#17A		-	-	-	-	-	-	-	-
SCS#17		-	-	-	-	-	-	-	-
SCS#18A		-	-	-	-	-	-	-	-
SCS#18		-	-	-	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-
P#3A		-	-	-	-	-	-	-	-
P#4		-	-	-	-	-	-	-	-
P#1		-	-	-	-	-	-	-	-
P#2		-	-	-	-	-	-	-	-
P#2A		-	-	-	-	-	-	-	-

KEY--> * MG/1
** DRY WEATHER SAMPLES

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1993

		*NO3/ NO2--		NITRATE/NITRITE-N						
SITE	DATE-->	5/19/93	5/21/93	5/23/93	5/28/93	6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		0.07	-	-	-	-	-	-	-	-
SCS#1A		0.02	-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-	-
SCS#2		0.19	-	-	-	-	-	-	0.02	-
SCS#2A		-	-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	-	-	-
SCS#2B-2		-	-	-	-	-	-	-	-	-
SCS#3		-	-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	3.18	-	-	-	-
SCS#5		<0.01	-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	0.07	-	-	1.13	-
SCS#7A		-	-	-	-	0.04	-	-	-	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	0.08	-
SCS#8		-	-	-	-	-	-	-	-	-
P#5		-	-	-	<0.01	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-	-
SCS#9		-	<0.01	-	-	-	-	-	0.01	-
SCS#9A		-	-	-	-	-	-	-	0.10	-
SCS#10		0.02	-	-	-	-	-	-	-	-
SCS#11		-	-	-	-	0.15	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-	-
SCS$13		-	<0.01	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-	-
SCS#14		-	0.05	-	-	-	-	-	-	-
SCS#15		-	0.16	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	0.02	-	-
SCS#16		-	-	-	-	-	-	0.02	-	-
SCS#17A		-	-	-	-	-	-	0.03	-	-
SCS#17		-	-	-	-	-	-	0.08	-	-
SCS#18A		-	-	-	-	-	-	0.07	-	-
SCS#18		-	-	-	1.00	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-	<0.01
P#3A		-	-	-	-	-	-	-	-	<0.01
P#4		-	-	-	-	-	-	-	-	0.01
P#1		-	-	-	-	-	-	-	-	0.04
P#2		-	-	-	-	-	-	-	-	0.02
P#2A		-	-	-	-	-	-	-	-	<0.01

KEY--> * MG/1
** DRY WEATHER SAMPLES

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1992

SITE	DATE-->	* NH3-- AMMONIA-N 9/28/92	10/16/92	10/30/92	11/05/92	11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		-	-	0.20	-	-	-	-	-
SCS#1A		-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-
SCS#2		-	-	-	-	-	-	-	-
SCS#2A		-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	0.4	-
SCS#2B-2		-	-	-	-	-	-	0.1	-
SCS#3		-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	-	-	-	-
SCS#5		-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	-	-	0.1	-
SCS#7A		-	-	-	-	-	-	0.1	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	-
SCS#8		-	-	-	-	-	-	-	-
P#5		-	-	-	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-
SCS#9		-	-	-	-	-	-	-	-
SCS#9A		-	-	-	-	-	-	-	-
SCS#10		-	-	-	-	0.20	-	<0.1	-
SCS#11		-	-	-	-	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-
SCS$13		-	-	-	-	-	0.10	-	-
SCS#13A		-	-	-	-	-	0.20	-	-
SCS#14		-	-	-	-	-	-	-	-
SCS#15		-	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	-	-
SCS#16		-	-	-	-	-	-	-	-
SCS#17A		-	-	-	-	-	-	-	-
SCS#17		-	-	-	-	-	-	-	-
SCS#18A		-	-	-	-	-	-	-	-
SCS#18		-	-	-	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-
P#3A		-	-	-	-	-	-	-	-
P#4		-	-	-	-	-	-	-	-
P#1		-	-	-	-	-	-	-	-
P#2		-	-	-	-	-	-	-	-
P#2A		-	-	-	-	-	-	-	-

KEY--> * MG/1
** DRY WEATHER SAMPLES

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1993

SITE	DATE-->	* NH3-- 5/19/93	AMMON IA-N 5/21/93	5/23/93	5/28/93	6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		<0.10	-	-	-	-	-	-	-	-
SCS#1A		0.17	-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-	-
SCS#2		0.10	-	-	-	-	-	-	0.1	-
SCS#2A		-	-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	-	-	-
SCS#2B-2		-	-	-	-	-	-	-	-	-
SCS#3		-	-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	0.39	-	-	-	-
SCS#5		0.10	-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	0.28	-	-	0.1	-
SCS#7A		-	-	-	-	0.35	-	-	-	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	,0.1	-
SCS#8		-	-	-	-	-	-	-	-	-
P#5		-	-	-	0.14	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-	-
SCS#9		-	0.10	-	-	-	-	-	1.2	-
SCS#9A		-	-	-	-	-	-	-	0.2	-
SCS#10		0.14	-	-	-	-	-	-	-	-
SCS#11		-	-	-	-	<0.10	-	-	-	-
SCS#12		-	-	-	-	-	-	-	-	-
SCS#13		-	0.64	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-	-
SCS#14		-	0.10	-	-	-	-	-	-	-
SCS#15		-	0.18	-	-	-	-	-	-	-
SCS#15A		-	-	-	-	-	-	0.11	-	-
SCS#16		-	-	-	-	-	-	<0.10	-	-
SCS#17A		-	-	-	-	-	-	0.03	-	-
SCS#17		-	-	-	-	-	-	0.11	-	-
SCS#18A		-	-	-	-	-	-	<0.10	-	-
SCS#18		-	-	-	1.20	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-	<0.1
P#3A		-	-	-	-	-	-	-	-	<0.1
P#4		-	-	-	-	-	-	-	-	0.1
P#1		-	-	-	-	-	-	-	-	0.4
P#2		-	-	-	-	-	-	-	-	0.02
P#2A		-	-	-	-	-	-	-	-	<0.1

KEY--> * MG/l
** DRY WEATHER SAMPLES

FREEPORT--WATER QUALITY IMPROVEMENT STUDY--1992

SITE	DATE-->	*CONDU 9/28/92	CTIVITY- 10/16/92	-**TEMP 10/30/92	ERATU 11/05/92	RE (C) 11/11/92	11/19/92	11/23/92	11/24/92
SCS#1		250/15	-	250/8	190/8	-	-	-	-
SCS#1A		-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	170/6	-	130/7	-
SCS#1B-1		-	-	-	-	150/6	-	130/7	-
SCS#1B-2		-	-	-	-	160/5.5	-	110/6.5	-
SCS#2		440/14	-	-	380/8	270/4.5	-	3800/6.5	-
SCS#2A		-	-	-	260/8	-	-	440/7	-
SCS#2B		-	-	-	-	430/4.5	-	360/7	-
SCS#2B-1		-	-	-	-	-	-	110/7	-
SCS#2B-2		-	-	-	-	-	-	120/7	-
SCS#3		-	-	-	350/8	-	-	-	270/4
SCS#4		-	-	-	-	-	-	-	-
SCS#5		-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-
SCS#7		-	-	-	90/9	90/6	-	-	-
SCS#7A		-	-	-	130/8,5	130/6	-	140/6.5	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	-
SCS#8		-	-	-	-	-	-	-	260/4.5
P#5		-	-	-	-	-	-	-	-
P#5A		-	-	-	160/10	-	-	-	120/7
SCS#9		-	-	-	-	-	-	-	-
SCS#9A		-	-	-	2550/8.5	-	-	-	-
SCS#10		-	-	-	270/9	320/5	-	210/7	-
SCS#11		-	-	-	-	-	-	-	230/8
SCS#12		-	-	-	-	-	-	-	-
SCS$13		-	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-
SCS#14		-	-	-	-	-	-	-	-
SCS#15		-	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	-	-
SCS#16		-	-	-	-	-	-	-	-
SCS#17A		-	-	-	-	-	-	-	-
SCS#17		-	-	-	-	-	-	-	-
SCS#18A		-	-	-	-	-	-	-	-
SCS#18		-	-	-	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-
P#3A		-	-	-	-	-	-	-	-
P#4		-	-	-	-	-	-	-	-
P#1		-	-	-	-	-	-	-	-
P#2		-	-	-	-	-	-	-	-
P#2A		-	-	-	-	-	-	-	-

KEY-> * umhos/cm (actual meter reading is in mS)
**temperature of sampled water
***dry weather samples

FREEPORT–WATER QUALITY IMPROVEMENT STUDY--1993

SITE	DATE-->	*CONDU 6/19/93	CTIVITY- 6/21/93	-**TEMP 6/23/93	ERATU 6/28/93	RE (C) 6/1/93	6/4/93	6/10/93	7/20/93	7/23/93
SCS#1		720/11	-	-	-	-	-	-	-	-
SCS#1A		150/10	-	-	-	-	-	-	-	-
SCS#1B		-	-	-	-	-	-	-	-	-
SCS#1B-1		-	-	-	-	-	-	-	-	-
SCS#1B-2		-	-	-	-	-	-	-	-	-
SCS#2		670/10.5	-	-	-	-	-	-	160/19	-
SCS#2A		-	-	-	-	-	-	-	-	-
SCS#2B		-	-	-	-	-	-	-	-	-
SCS#2B-1		-	-	-	-	-	-	-	-	-
SCS#2B-2		-	-	-	-	-	-	-	-	-
SCS#3		-	-	-	-	-	-	-	-	-
SCS#4		-	-	-	-	-	360/11	-	-	-
SCS#5		150/10	-	-	-	-	-	-	-	-
SCS#6		-	-	-	-	-	-	-	-	-
SCS#7		-	-	-	-	-	120/10	-	70/17	-
SCS#7A		-	-	-	-	-	80/10	-	-	-
SCS#7B	(NEW)	-	-	-	-	-	-	-	50/17.5	-
SCS#8		-	-	-	-	-	-	-	-	-
P#5		-	-	-	110/11	-	-	-	-	-
P#5A		-	-	-	-	-	-	-	-	-
SCS#9		-	1100/11	-	-	-	-	-	380/18	-
SCS#9A		-	-	-	-	-	-	-	410/17.5	-
SCS#10		270/12	-	-	-	-	-	-	-	-
SCS#11		-	-	-	-	-	90/11	-	-	-
SCS#12		-	-	-	-	-	-	-	-	-
SCS#13		-	19850/13	-	-	-	-	-	-	-
SCS#13A		-	-	-	-	-	-	-	-	-
SCS#14		-	220/12	-	-	-	-	-	-	-
SCS#15		-	220/10.5	-	-	-	-	-	-	-
SCS#16A		-	-	-	-	-	-	80/10	-	-
SCS#16		-	-	-	-	-	-	170/10	-	-
SCS#17A		-	-	-	-	-	-	320/11	-	-
SCS#17		-	-	-	-	-	-	240/11.5	-	-
SCS#18A		-	-	-	-	-	-	140/11	-	-
SCS#18		-	-	-	10240/13	-	-	-	-	-
P#3		-	-	-	-	-	-	-	-	24/16
P#3A		-	-	-	-	-	-	-	-	66/16
P#4		-	-	-	-	-	-	-	-	25/17
P#1		-	-	-	-	-	-	-	-	40/16.5
P#2		-	-	-	-	-	-	-	-	38/15.5
P#2A		-	-	-	-	-	-	-	-	52/16

KEY--> * umhos/cm (actual meter reading is in mS)
**temperature of sampled water
***dry weather samples

REVISED
(JULY 20, 1993)

DESCRIPTION OF TESTING SITES FOR FREEPORT WATER QUALITY IMPROVEMENT PROJECT

General

1. This information can be found on the U.S. Geological Survey Map Freeport Quadrangle, Scale 1:24000.

2. Water samples should be collected at low tide.*

Site Locations:

Area I - Flying Point

SCS#1 Flying Point Road. Two lots past West Shore Drive. Culvert, sample on outgoing end. (Will see white trailer across from sample point.)

SCS#1A *Same as SCS#1, except sample where stream meets flats.

SCS#1B Sample from outlet of culvert running under entrance of driveway to white trailer.

SCS#1B-1 Sample above culvert inlet (of SCS#1B), approximately three (3) feet below ditch which runs parallel to driveway of trailer.

SCS#1B-2 Sample stream above SCS#1B-1, (above the ditch), in a pool found below a group of tree roots. (Approximately five (5) feet from SCS#1B-1)

SCS#2 Flying Point Road, turn left onto Byram Avenue. Culvert with alder tree leaning over it. Sample outgoing end.

SCS#2A Sample five (5) feet east (heading toward houses), of culvert inlet. (on Byram Avenue)

SCS#2B Sample three (3) feet above culvert inlet, from stream flowing out of swampy area. (This drains the back yards of the row of houses on the right of Byram Avenue - heading east.)

SCS#2B-1 Site is above SCS#2B, where two (2) small drainage streams converge. Sample just below this convergence.

SCS#2B-2 At SCS#2B-1, walk approximately four (4) feet up alongside left fork (of stream), sample this area.

SCS#3 Flying Point Road, take right onto West Shore Drive. First culvert, sample outgoing end.

SCS#4 *West Shore Drive, drainage ditch on left, just past dirt/tar boat launch area. Sample where drainage meets the flats.

SCS#5 *Flying Point Road, Mailbox 210. Drainage ditch alongside this lot, on right facing water. Sample where drainage meets flats.

AREA 1 continued:

SCS#6 *Flying Point Road, Mailbox 218. Drainage ditch alongside this lot, on right if facing water. Sample where drainage meets flats. (Flagging on evergreen tree)

SCS#7 Cunningham Road, off Flying Point Road. Second culvert in. (note hand-printed sign) Sample outgoing end.

SCS#7A Cunningham Road, off Flying Point Road. First culvert in. Sample outgoing end.

SCS#7B On Cunningham Road, go straight at fork on dirt road. (Cunningham Road sign bears right). Across from second house on right, you will find a very small handmade culvert. Sample outgoing end.

SCS#8 At end of tarred portion of Flying Point Road, culvert. Sample outgoing end.

P5, P5A On West Shore Drive. On left, look for natural shingled house and two-storied chocolate brown house, approximately 0.25 mile in. On shore side, note two brown 5" pipes coming from the hill in back of the natural shingled cottag. (Appear to be foundation drain pipes?)

AREA II - Little River, Wolf Neck, Moore Point

SCS#9 *Little River, off Burnett Road. Look for large downed tree with flagging tied onto it . (It will be on the right, looking up the river, just before point of land.) Sample this drainage ditch, which drains an upper pasture. Note that this ditch has a dead white birch spanning the ditch just up from the sampling site.

SCS#9A *Around the point from SCS#9, heading upriver. Sample the Little River.

SCS#10 Wolf Neck Road, drive past park entrance, continued about 6/10 mile. Will see small group of mailboxes on right. Take left onto dirt road/driveway. Bear right twice. Near end of this drivewqy, note flagging on tree. Sample the large black culvert just before this. Sample outgoing end. (This culvert drains the pasture on the right.)

SCS#11 Moore Point. Turn left before wharf. Sample drainage ditch on left of Bakers. (Second house in, has a garage in front of house.)

SCS#12 Moore Point. Drainage area on left, between last house on left and wharf. This appears to be the point where rainfall runoff on the dirt road empties into the bay.

AREA III - Staples Cove, Spar Cove

SCS#13 *Winslow Cove Road. Enter marsh beside mailbox #64. Sample from gulley draining flats in front of line of trailers, site is in line with trailer that has a small, white doghouse on shore side.

SCS#13A *Upstream from SCS#13, where two streams converge, sample.

AREA III continued:

SCS#14 *Dead end of Spar Cove Road. Drainage area, sample where stream empties into flats.

SCS#15 Spar Cove Road, mailbox #25. Sample stream between lots, it is to the left of the home with mailbox #25.

AREA IV - Collins Cove

SCS#16A South Freeport Road. Between Cushing Briggs Road and Main Street. Facing Haraseeket River area, look for flagged culvert by the Parkers' mailbox. Sample outgoing end.

SCS#16 *Follow stream down from SVS#16A sampling site, sample where stream meets the flats.

SCS#17A South Freeport Road. Between Cushing Briggs Road and Main Street. Facing Haraseeket River area, look for Johnsons' mailbox (#59), sample from drainage ditch. (Flagged)

SCS#17 *Follow drainage ditch from SCS#17A down to where stream meets the flats, sample just above where old dead tree hangs above stream. (Tree has tires, etc. hanging off its branches.)

SCS#18A Randall Road, off South Freeport Road. Look for flagged culvert just to right of turn onto Randall Road. Sample outgoing end.

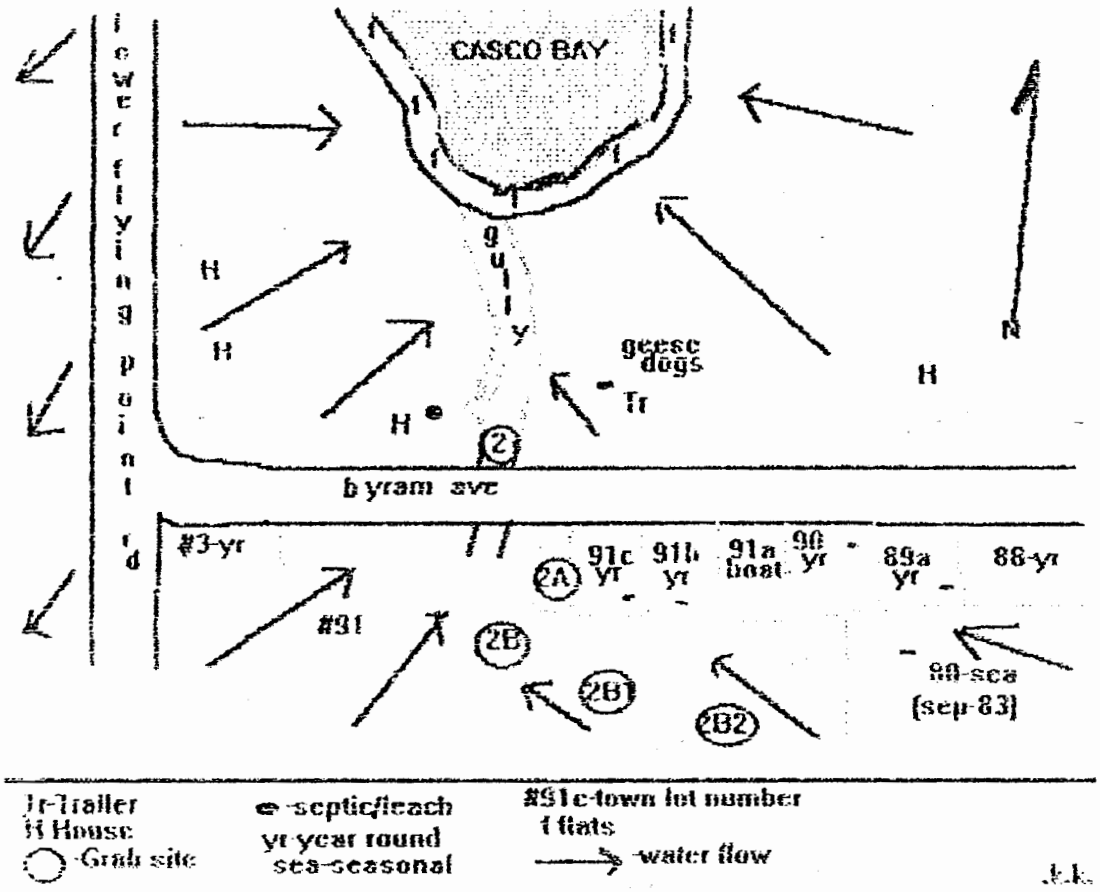
SCS#18 *Follow stream from SCS#18A to flats, sample stream just below brown house. (Stream meets flats at this point.)

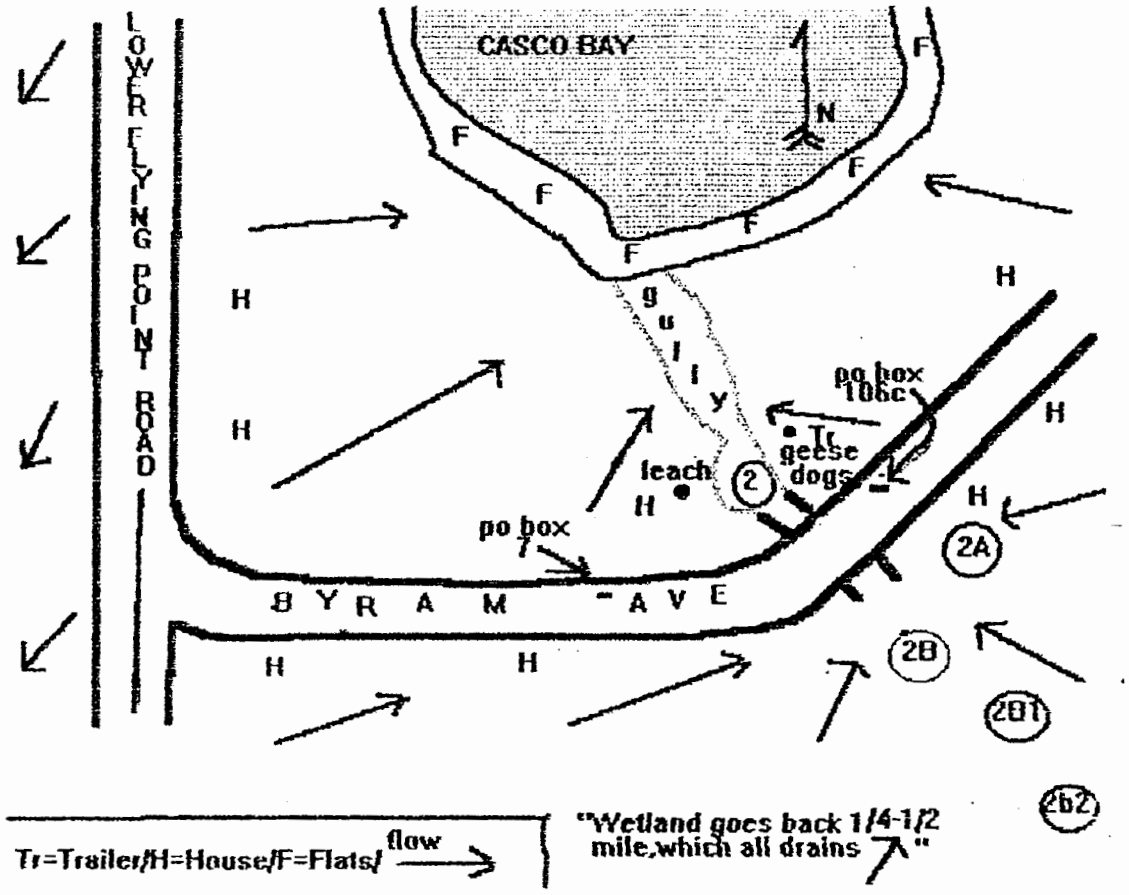
P3, P3A *Approximately two houses on shore past Randall Road, heading toward marina, is a natural shingled home with two pipes over embankment to flats. One pipe is a 4" black flexhose, and the other is a 4" iron pipe. The apple tree next to the pipes is flagged.

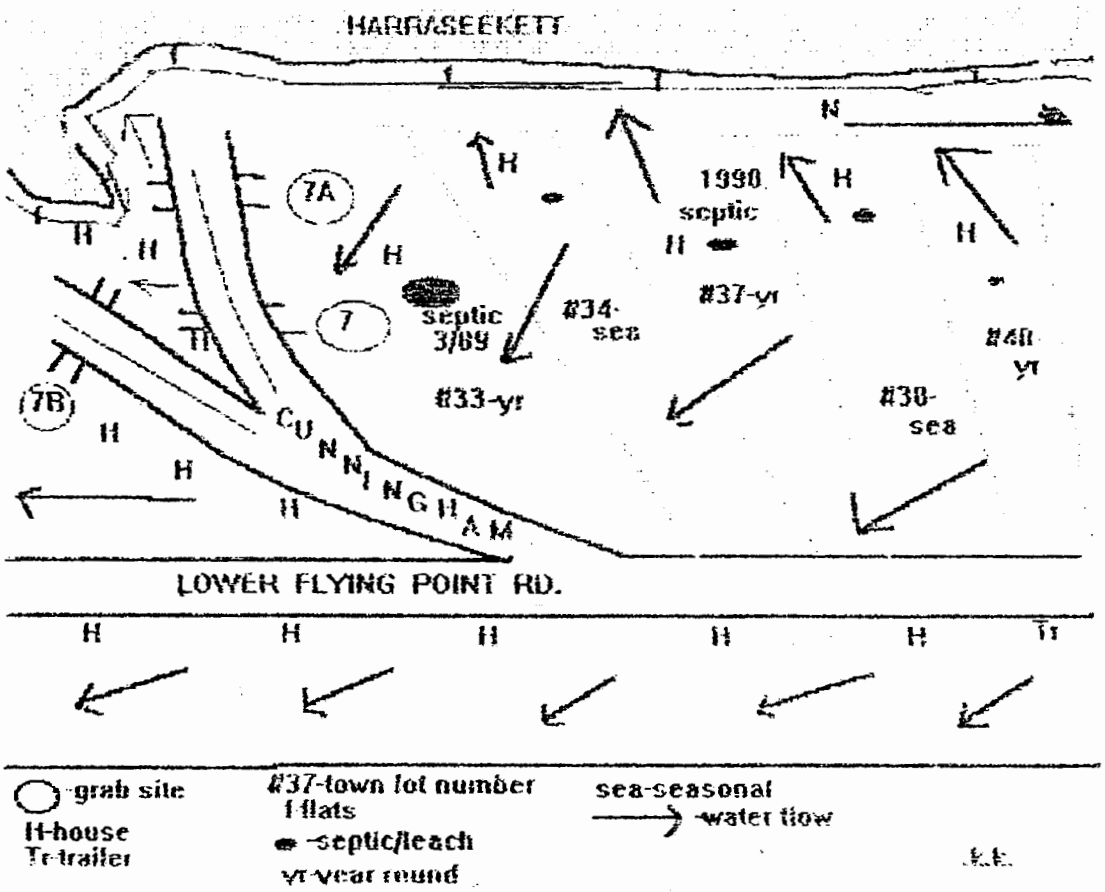
P4 *At the end of Cushing Briggs Road, the one-storied home on the left, (with the metal chimney, and antenna),appears to have an old 3" iron pipe coming out of the embankment t the flats. It is flagged.

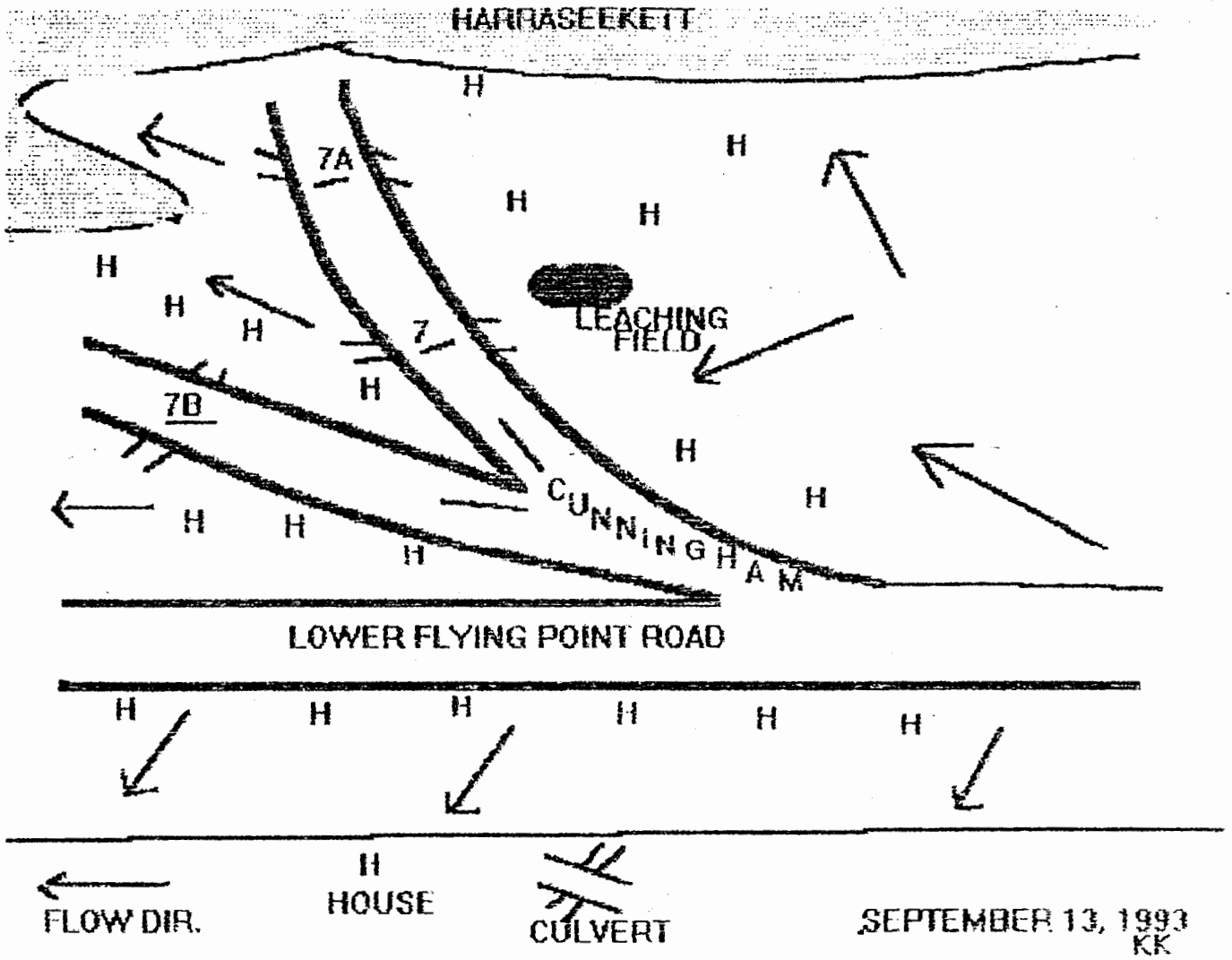
P1 At the end of Dixon Road, off of Haraseeket Avenue, 6" concrete drain pipe on right. (Facing river) Sample outgoing end, but note orange seepage near ingoing end.

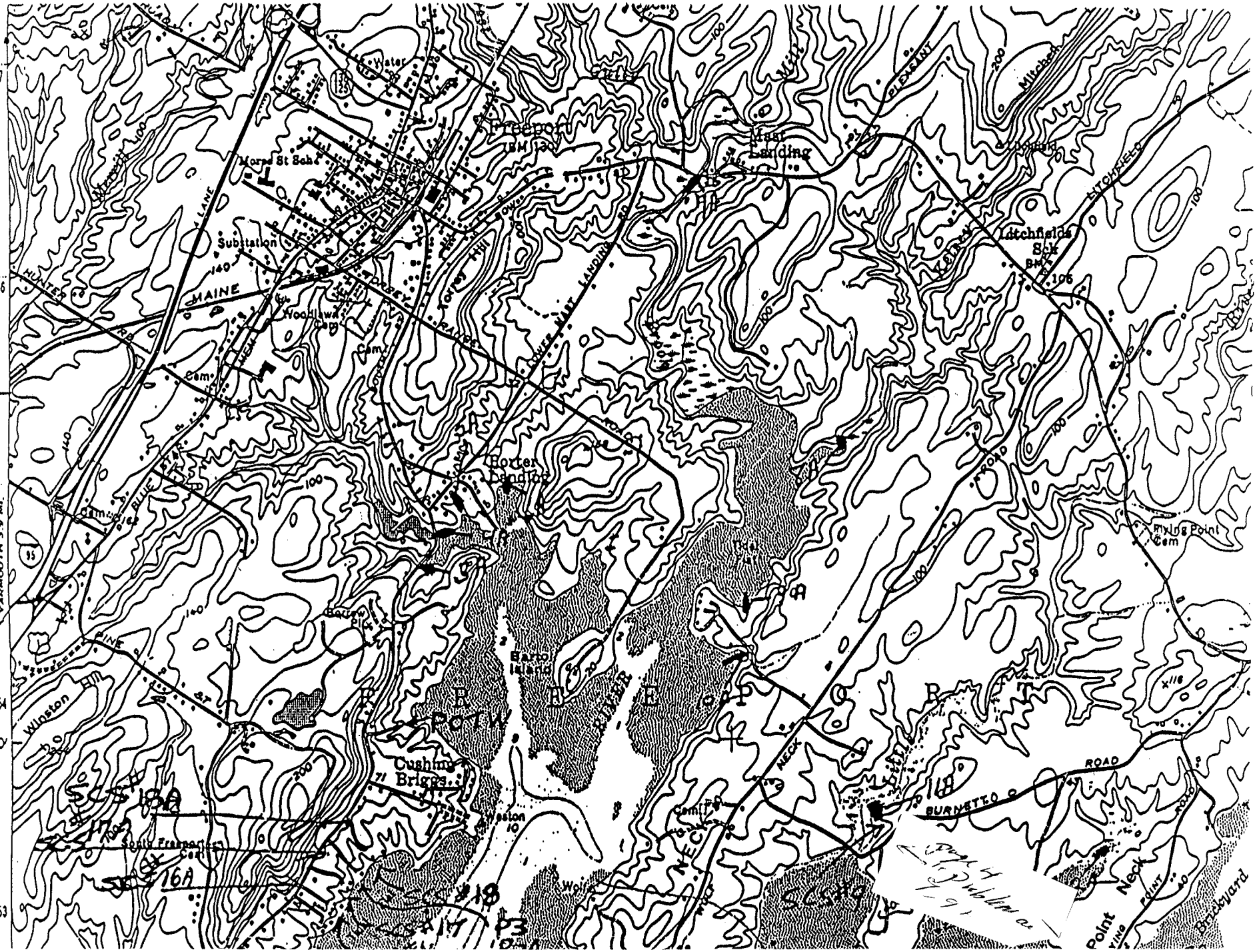
P2, P2A At the end of Haraseeket Avenue, Lot#____, in embankment on shore side of house, two pipes noted. A 6" metal pipe, and a 4" pipe...possibly for drainage?

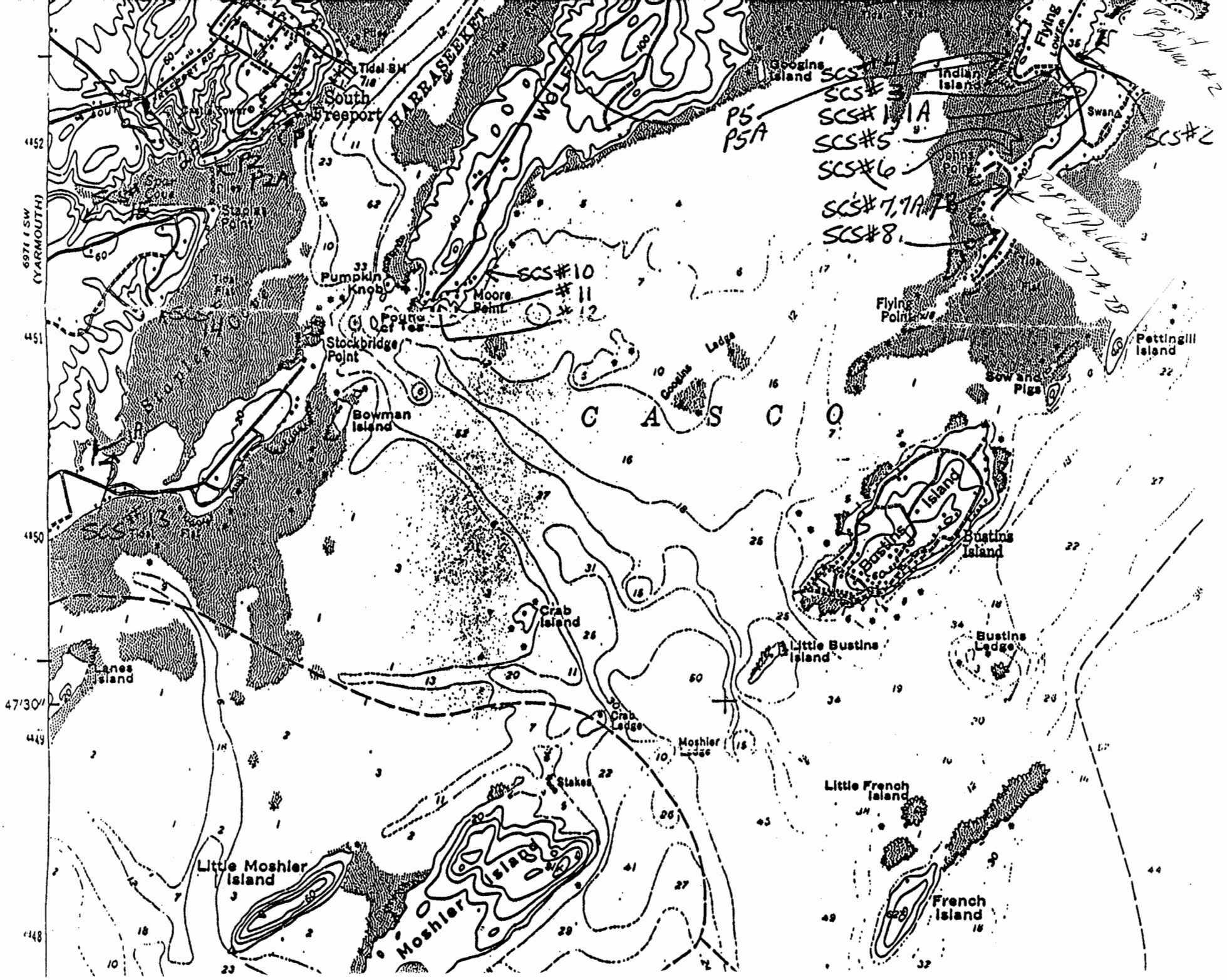

CASCO BAY
lower flying point rd
guy
geese
dogs
Tr
H
byram ave
#3-yr
#31
91c yr
91b yr
91a boat
90 yr
89a yr
88-yr
88-sea (sep-83)
2
2A
2B
2B1
2B2
Tr-Trailer
H House
Grab site
e-septic/leach
yr year round
sea-seasonal
#91c-town lot number
flats
water flow


CASCO BAY
N
LOWER FLYING POINT ROAD
F
H
gully
po box 106c
Tr
geese
dogs
leach
2
po box 7
BYRAM AVE
2A
2B
2B1
2b2
Tr=Trailer/H=House/F=Flats/ flow
"Wetland goes back 1/4-1/2 mile,which all drains"


HARRA/SEEKETT
N
7A
7
7B
H
1990
septic
septic
3/89
#34-
sea
#37-yr
#40
yr
#33-yr
#38-
sea
CUNNINGHAM
LOWER FLYING POINT RD.
Tr
grab site
H-house
Tr-trailer
#37-town lot number
f-flats
-septic/leach
yr-year round
sea-seasonal
-water flow


HARRASEEKETT
7A
7
7B
LEACHING FIELD
CUNNINGHAM
LOWER FLYING POINT ROAD
FLOW DIR.
HOUSE
CULVERT
SEPTEMBER 13, 1993
KK


Freeport
BM 130
Morse St Schl
Water
Tower
Mill
Substation
MAINE
Woodlawn Cem
Cem
Porter Landing
Barrel Island
RIVER
Cushing Briggs
Wolf
Wyman
Wingston Hill
Mitcheller
Latchfields Sch
BM
106
Mixing Point Cem
BURNETTO ROAD
Point Neck
Brickyard
PORTLAND (CIV.C CENTER) 17 MI.
YARMOUTH 3.9 MI.
4157
4156
4154
4153
50'
#18
#17
P3
16A
SCS 130
SCS 149


South Freeport
HARRASEEKET
WOLF
Tidal Bm
Spear Cove
Staples Point
Pumpkin Knob
Moore Point
Stockbridge Point
Bowman Island
Tidal Flat
Crab Island
Crab Ledge
Lanes Island
Stakes
Moshier Ledge
Little Moshier Island
Moshier Island
Little Bustins Island
Bustins Island
Bustins Ledge
Little French Island
French Island
Flying Point
Sow and Pigs
Pettingill Island
Goodins Ledge
Goodins Island
Indian Island
Johns Point
Swans
Flying
CASCO
6971 I SW (YARMOUTH)
47'30"
P5
P5A
SCS#1
SCS#1A
SCS#2
SCS#3
SCS#5
SCS#6
SCS#7,7A,7B
SCS#8
SCS#10
#11
#12
SCS#13

8/25/94

Biological/Chemical Data Report

This report indicates the amount and value of data at each site. The data are initially grouped according to site with the heading of "Site x". Whithin each site group the data is grouped according to month and the raw data displayed for each date. At the end of the month is the average values for the month. At the end of each site is a section with the heading of "Summary of site x". This section lists the number of observations, average, minimum, and maximum for each variable for the site. The end of the report contains a "Report Summary" which lists the number of observations and the minumum and maximum dates for the report. If a date is listed but no data is present, this means that other data is available for these dates in one of the other data reports (Basic data report or Ancillary data report).

The column headings are as follows:

Codes

Day	=	Day of observation
Time	=	Time of observation (Military)
FColi	=	Fecal Coliform Bacteria (MPN/100 ml or CFU/100 ml)
EColi	=	Escherichia Coliform Bacteria (MPN/100 ml or CFU/100 ml)
Am	=	Ammonia (mg/l)
TP	=	Total Phosphorus (mg/l)
TKN	=	Total Kjeldahl Nitrogen (mg/l)
CHl	=	Chlorophyll a (ug/l)
Cond	=	Conductivity
Ca	=	Calcium (mg/l)
Mg	=	Magnesium (mg/l)

****
* Site: 1 *
****

Month: Sep 92 Site: 1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
28			470			1.82				
28	1152		470			1.82		270.0		
Avg.	1152		470			1.82		270.0		

Month: Oct 92 Site: 1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
16			30			5.75				
16	844		30			5.75				
30		25	55	.2		.95				
30	830	25	30	.2		.95		250.0		
Avg.	837	25	36	.2		3.35		250.0		

Month: Nov 92 Site: 1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5			180			.01				
5	935		180			.01		190.0		
Avg.	935		180			.01		190.0		

Month: May 93 Site: 1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19										
19	610	0	0	.1		.07		720.0		
Avg.	610	0	0	.1		.07		720.0		

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg

Summary for site: 1

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	874	17	161	.2		1.90		357.5		
Minumum	610	0	0	.1		.01		190.0		
Maximum	1152	25	470	.2		5.75		720.0		

Number of observations: 10
Minimum date: 9/28/92
Maximum date: 5/19/93

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***************
* Site: 10    *
***************
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Month: Nov 92 Site: 10

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5			120			.01				
5	1325		120			.01		270.0		
11		520	868	.2		.01				
11	1210	520	348	.2		.01		320.0		
23		******	******	.1		.01				
23	1245	******	******	.1		.01		210.0		
Avg.	1260	******	******	.2		.01		266.7		

Month: May 93 Site: 10

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19										
19	945	0	0	.1		.02		270.0		
Avg.	945	0	0	.1		.02		270.0		

Summary for site: 10

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1181	******	******	.1		.01		267.5		
Minumum	945	0	0	.1		.01		210.0		
Maximum	1325	******	******	.2		.02		320.0		

Number of observations: 8
Minimum date: 11/05/92
Maximum date: 5/19/93

****
* Site: 11 *
****

Month: Nov 92 Site: 11

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
24			5			.64				
24	1050		5			.64		230.0		
Avg.	1050		5			.64		230.0		

Month: Jun 93 Site: 11

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1										
1	800	0	0	.1		.15		90.0		
Avg.	800	0	0	.1		.15		90.0		

Summary for site: 11

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	925	0	3	.1		.48		160.0		
Minumum	800	0	0	.1		.15		90.0		
Maximum	1050	0	5	.1		.64		230.0		

Number of observations: 4
Minimum date: 11/24/92
Maximum date: 6/01/93

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***************
* Site: 13    *
***************
```

Month: Nov 92 Site: 13

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19		0	0	.1		.01				
19	1254	0	0	.1		.01		290.0		
Avg.	1254	0	0	.1		.01		290.0		

Month: May 93 Site: 13

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
21										
21	1030	10	0	.6		.01		1985.0		
Avg.	1030	10	0	.6		.01		1985.0		

Summary for site: 13

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1142	3	0	.3		.01		1137.5		
Minumum	1030	0	0	.1		.01		290.0		
Maximum	1254	10	0	.6		.01		1985.0		

Number of observations: 4
Minimum date: 11/19/92
Maximum date: 5/21/93

****
* Site: 13A *
****

Month: Nov 92 Site: 13A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19		0	0	.2		.01				
19	1319	0	0	.2		.01		276.0		
Avg.	1319	0	0	.2		.01		276.0		

Summary for site: 13A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1319	0	0	.2		.01		276.0		
Minumum	1319	0	0	.2		.01		276.0		
Maximum	1319	0	0	.2		.01		276.0		

Number of observations: 2
Minimum date: 11/19/92
Maximum date: 11/19/92

****
* Site: 14 *
****

Month: May 93 Site: 14

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
21										
21	1100	3	3	.1		.05		220.0		
Avg.	1100	3	3	.1		.05		220.0		

Summary for site: 14

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1100	3	3	.1		.05		220.0		
Minumum	1100	3	3	.1		.05		220.0		
Maximum	1100	3	3	.1		.05		220.0		

Number of observations: 2
Minimum date: 5/21/93
Maximum date: 5/21/93

****
* Site: 15 *
****

Month: May 93 Site: 15

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
21										
21	1130	108	83	.2		.16		220.0		
Avg.	1130	108	83	.2		.16		220.0		

Summary for site: 15

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1130	108	83	.2		.16		220.0		
Minumum	1130	108	83	.2		.16		220.0		
Maximum	1130	108	83	.2		.16		220.0		

Number of observations: 2
Minimum date: 5/21/93
Maximum date: 5/21/93

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***************
* Site: 16    *
***************
```

Month: Jun 93 Site: 16

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10										
10	915	0	0	.1		.02		170.0		
Avg.	915	0	0	.1		.02		170.0		

Summary for site: 16

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	915	0	0	.1		.02		170.0		
Minumum	915	0	0	.1		.02		170.0		
Maximum	915	0	0	.1		.02		170.0		

Number of observations: 2
Minimum date: 6/10/93
Maximum date: 6/10/93

****
* Site: 16A *
****

Month: Jun 93 Site: 16A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10										
10	845	0	0	.1		.02		800.0		
Avg.	845	0	0	.1		.02		800.0		

Summary for site: 16A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	845	0	0	.1		.02		800.0		
Minumum	845	0	0	.1		.02		800.0		
Maximum	845	0	0	.1		.02		800.0		

Number of observations: 2
Minimum date: 6/10/93
Maximum date: 6/10/93

```
***************
* Site: 17    *
***************
```

Month: Jun 93 Site: 17

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10										
10	815	25	40	.1		.02		240.0		
Avg.	815	25	40	.1		.02		240.0		

Summary for site: 17

	Time	FColi	EColi	m	TP	TKN	CHl	Cond	Ca	Mg
Average	815	25	40	.1		.02		240.0		
Minumum	815	25	40	.1		.02		240.0		
Maximum	815	25	40	.1		.02		240.0		

Number of observations: 2
Minimum date: 6/10/93
Maximum date: 6/10/93

****
* Site: 17A *
****

Month: Jun 93 Site: 17A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10										
10	745	340	245	.3		.03		320.0		
Avg.	745	340	245	.3		.03		320.0		

Summary for site: 17A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	745	340	245	.3		.03		320.0		
Minumum	745	340	245	.3		.03		320.0		
Maximum	745	340	245	.3		.03		320.0		

Number of observations: 2
Minimum date: 6/10/93
Maximum date: 6/10/93

****
* Site: 18 *
****

Month: May 93 Site: 18

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
28										
28	830	25	20	1.2		1.00		1024.0		
Avg.	830	25	20	1.2		1.00		1024.0		

Summary for site: 18

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	830	25	20	1.2		1.00		1024.0		
Minumum	830	25	20	1.2		1.00		1024.0		
Maximum	830	25	20	1.2		1.00		1024.0		

Number of observations: 2
Minimum date: 5/28/93
Maximum date: 5/28/93

****
* Site: 18A *
****

Month: Jun 93 Site: 18A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10										
10	730	10	25	.1		.07		140.0		
Avg.	730	10	25	.1		.07		140.0		

Summary for site: 18A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	730	10	25	.1		.07		140.0		
Minumum	730	10	25	.1		.07		140.0		
Maximum	730	10	25	.1		.07		140.0		

Number of observations: 2
Minimum date: 6/10/93
Maximum date: 6/10/93

```
***************
* Site: 1A    *
***************
```

Month: Oct 92 Site: 1A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
16			0			.42				
16	910		0			.42				
Avg.	910		0			.42				

Month: May 93 Site: 1A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19										
19	620	20	5	.2		.02		150.0		
Avg.	620	20	5	.2		.02		150.0		

Summary for site: 1A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	765	20	2	.2		.29		150.0		
Minumum	620	20	0	.2		.02		150.0		
Maximum	910	20	5	.2		.42		150.0		

Number of observations: 4
Minimum date: 10/16/92
Maximum date: 5/19/93

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***************
* Site: 1B    *
***************
```

Month: Nov 92 Site: 1B

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
11			70			.09				
11	956		70	.1		.09		170.0		
23			1160			.46				
23	1129		1160			.46		130.0		
Avg.	1043		615	.1		.28		150.0		

Summary for site: 1B

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1043		615	.1		.28		150.0		
Minumum	956		70	.1		.09		130.0		
Maximum	1129		1160	.1		.46		170.0		

Number of observations: 4
Minimum date: 11/11/92
Maximum date: 11/23/92

****
* Site: 1B1 *
****

Month: Nov 92 Site: 1B1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
11			123			.07				
11	1025		123			.07		150.0		
23			1340			.46				
23	1144		1340			.46		130.0		
Avg.	1085		732			.27		140.0		

Summary for site: 1B1

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1085		732			.27		140.0		
Minumum	1025		123			.07		130.0		
Maximum	1144		1340			.46		150.0		

Number of observations: 4
Minimum date: 11/11/92
Maximum date: 11/23/92

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***************
* Site: 1B2   *
***************
```

Month: Nov 92 Site: 1B2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
11			0			.06				
11	1030		0			.06		160.0		
23			1100			.51				
23	1153		1100			.51		110.0		
Avg.	1092		550			.29		135.0		

Summary for site: 1B2

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1092		550			.29		135.0		
Minumum	1030		0			.06		110.0		
Maximum	1153		1100			.51		160.0		

Number of observations: 4
Minimum date: 11/11/92
Maximum date: 11/23/92

****
* Site: 2 *
****

Month: Sep 92 Site: 2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
28			110			.42				
28	1234		110			.42		440.0		
Avg.	1234		110			.42		440.0		

Month: Oct 92 Site: 2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
16			0			.44				
16	824		0			.44				
Avg.	824		0			.44				

Month: Nov 92 Site: 2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5			40			.06				
5	900		40			.06		380.0		
11		38	56			.06				
11	831	38	18	.1		.06		270.0		
23			263			.69				
23	950		263			.69		3800.0		
Avg.	894	38	113	.1		.27		1483.3		

Month: May 93 Site: 2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19										
19	700	0	0	.1		.19		570.0		
Avg.	700	0	0	.1		.19		570.0		

Month: Jul 93 Site: 2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
20										
20	730	1380	1240	.1		.02		160.0		

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
Avg.	730	1380	1240	.1		.02		160.0		

Summary for site: 2

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	881	364	178	.1		.30		936.7		
Minumum	700	0	0	.1		.02		160.0		
Maximum	1234	1380	1240	.1		.69		3800.0		

Number of observations: 14
Minimum date: 9/28/92
Maximum date: 7/20/93

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***************
* Site: 2A    *
***************
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Month: Nov 92 Site: 2A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5			0			.10				
5	915		0			.10		260.0		
23			620			.41				
23	1008		620			.41		4400.0		
Avg.	962		310			.26		2330.0		

Summary for site: 2A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	962		310			.26		2330.0		
Minumum	915		0			.10		260.0		
Maximum	1008		620			.41		4400.0		

Number of observations: 4
Minimum date: 11/05/92
Maximum date: 11/23/92

```
***************
* Site: 2B    *
***************
```

Month: Nov 92 Site: 2B

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
11										
11	903		73			.01		430.0		
23										
23	1020		45			.75		3600.0		
Avg.	962		59			.38		2015.0		

Summary for site: 2B

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	962		59			.38		2015.0		
Minumum	903		45			.01		430.0		
Maximum	1020		73			.75		3600.0		

Number of observations: 4
Minimum date: 11/11/92
Maximum date: 11/23/92

```
***************
* Site: 2B1   *
***************
```

Month: Nov 92 Site: 2B1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1037	13	35	.4		.09		1100.0		
Avg.	1037	13	35	.4		.09		1100.0		

Summary for site: 2B1

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1037	13	35	.4		.09		1100.0		
Minumum	1037	13	35	.4		.09		1100.0		
Maximum	1037	13	35	.4		.09		1100.0		

Number of observations: 2
Minimum date: 11/23/92
Maximum date: 11/23/92

****
* Site: 2B2 *
****

Month: Nov 92 Site: 2B2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1058	15	40	.1		.11		1200.0		
Avg.	1058	15	40	.1		.11		1200.0		

Summary for site: 2B2

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1058	15	40	.1		.11		1200.0		
Minumum	1058	15	40	.1		.11		1200.0		
Maximum	1058	15	40	.1		.11		1200.0		

Number of observations: 2
Minimum date: 11/23/92
Maximum date: 11/23/92

```
***************
* Site: 3     *
***************
```

Month: Nov 92 Site: 3

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5										
5	1000		0			.01		370.0		
24										
24	900		5			.16		270.0		
Avg.	950		3			.09		320.0		

```
|-------------------------|
| Summary for site: 3     |
|-------------------------|
```

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	950		3			.09		320.0		
Minumum	900		0			.01		270.0		
Maximum	1000		5			.16		370.0		

Number of observations: 4
Minimum date: 11/05/92
Maximum date: 11/24/92

****
* Site: 30 *
****

Month: Jan 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1	1567	2098	1078	.2						
8	500			5.4	.010	.05	50.0			
21	915			.5						
29	830			.4						
Avg.	953	2098	1078	1.6	.010	.05	50.0			

Month: Feb 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
13	1000			.2						
22	1030			.1						
26	900	350	360	.5						
1	900	189		1.2	.400	.20	.3			
Avg.	958	270	360	.5	.400	.20	.3			

Month: Mar 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1	730	510	2600	.5	5.400	3.40	32.0			
2	500									
7	1230									
5		147								
6	900			.2						
Avg.	840	329	2600	.4	5.400	3.40	32.0			

Month: Apr 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
2	600			9.0	12.400	12.30	79.0			
2	900			.7						
Avg.	750			4.9	12.400	12.30	79.0			

Month: May 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
4	800			1.3						
9	945			1.4						
14	1000			.1						234.0
27	1430			.1						
28	1100			.1						
Avg.	1055			.6						234.0

Month: Jun 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
2	600	234	123	8.9						
5	730									
12	900			.2						
18	1000			4.5						
18	1234	200	245							
26	1300			2.3						
Avg.	961	217	184	4.0						

Month: Jul 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1	900			9.0	.030	12.30	234.0			
4	1345			9.0						
24	1230									
3	1045			4.3						
10	1530			6.5						
14	1320			3.4						
17	1430			2.3						
24	1315			1.2						
31	1330			2.3						
Avg.	1272			4.8	.030	12.30	234.0			

Month: Aug 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
12	1100	234	143							
22	800			9.0						
24	1267	3456	234	1.2	.010	.03	23.4	123.0	12342.0	12345.0

30	800	5.3
7	1330	2.4

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
Avg.	1059	1845	189	4.5	.010	.03	23.4	123.0	12342.0	12345.0

Month: Sep 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19	830			.2						
24	830			.3						
Avg.	830			.3						

Month: Oct 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
2	945			.3						
8	730			.4						
15	800			8.5						
19	830			2.3						
26	1030			2.3						
29	1030			.1						
Avg.	894			2.3						

Month: Nov 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5	800			.6						
14	830			.1						
19	930			.2						
26	900			.5						
Avg.	865			.4						

Month: Dec 90 Site: 30

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
10	1015			3.2						
27	830			.2						
Avg.	923			1.7						

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg

Summary for site: 30

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	993	824	683	2.4	3.042	4.71	69.8	123.0	12342.0	6289.5
Minumum	500	147	123	.1	.010	.03	.3	123.0	12342.0	234.0
Maximum	1567	3456	2600	9.0	12.400	12.30	234.0	123.0	12342.0	12345.0

Number of observations: 54
Minimum date: 1/01/90
Maximum date: 12/27/90

```
***************
* Site: 4     *
***************
```

Month: Jun 93 Site: 4

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1										
1	615	53	23	.4		3.18		360.0		
Avg.	615	53	23	.4		3.18		360.0		

Summary for site: 4

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	615	53	23	.4		3.18		360.0		
Minumum	615	53	23	.4		3.18		360.0		
Maximum	615	53	23	.4		3.18		360.0		

Number of observations: 2
Minimum date: 6/01/93
Maximum date: 6/01/93

```
***************
* Site: 5     *
***************
```

Month: May 93 Site: 5

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
19										
19	730	420	420	.1		.01		150.0		
28										
Avg.	730	420	420	.1		.01		150.0		

Summary for site: 5

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	730	420	420	.1		.01		150.0		
Minumum	730	420	420	.1		.01		150.0		
Maximum	730	420	420	.1		.01		150.0		

Number of observations: 3
Minimum date: 5/19/93
Maximum date: 5/28/93

****
* Site: 7 *
****

Month: Nov 92 Site: 7

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5										
5	1145		0			.01		80.0		
11										
11	1104		0			.01		90.0		
Avg.	1125		0			.01		85.0		

Month: Jun 93 Site: 7

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1										
1	700	1245	1235	.3		.07		120.0		
Avg.	700	1245	1235	.3		.07		120.0		

Month: Jul 93 Site: 7

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
20										
20	620	220	265	.1		1.13		70.0		
Avg.	620	220	265	.1		1.13		70.0		

Summary for site: 7

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	892	733	375	.2		.31		90.0		
Minumum	620	220	0	.1		.01		70.0		
Maximum	1145	1245	1235	.3		1.13		120.0		

Number of observations: 8
Minimum date: 11/05/92
Maximum date: 7/20/93

****
* Site: 7A *
****

Month: Nov 92 Site: 7A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5										
5	1200		40			.01		130.0		
11										
11	1119		10			.01		130.0		
23										
23	1330	410	600	.1		.02		1400.0		
Avg.	1216	410	217	.1		.01		553.3		

Month: Jun 93 Site: 7A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
1										
1	645	1780	1740	.4		.04		80.0		
Avg.	645	1780	1740	.4		.04		80.0		

Summary for site: 7A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1074	1095	598	.2		.02		435.0		
Minumum	645	410	10	.1		.01		80.0		
Maximum	1330	1780	1740	.4		.04		1400.0		

Number of observations: 8
Minimum date: 11/05/92
Maximum date: 6/01/93

****
* Site: 7B *
****

Month: Jul 93 Site: 7B

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
20										
20	600	1920	2400	.1		.08		500.0		
Avg.	600	1920	2400	.1		.08		500.0		

Summary for site: 7B

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	600	920	2400	.1		.08		500.0		
Minumum	600	1920	2400	.1		.08		500.0		
Maximum	600	1920	2400	.1		.08		500.0		

Number of observations: 2
Minimum date: 7/20/93
Maximum date: 7/20/93

****
* Site: 8 *
****

Month: Nov 92 Site: 8

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
24										
24	1004		435			.05		260.0		
Avg.	1004		435			.05		260.0		

Summary for site: 8

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1004		435			.05		260.0		
Minumum	1004		435			.05		260.0		
Maximum	1004		435			.05		260.0		

Number of observations: 2
Minimum date: 11/24/92
Maximum date: 11/24/92

****
* Site: 9 *
****

Month: May 93 Site: 9

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
21										
21	710	405	395	.1		.01		110.0		
Avg.	710	405	395	.1		.01		110.0		

Month: Jul 93 Site: 9

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
20										
20	815	1180	1620	1.2		.01		380.0		
Avg.	815	1180	1620	1.2		.01		380.0		

Summary for site: 9

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	763	793	1008	.7		.01		245.0		
Minumum	710	405	395	.1		.01		110.0		
Maximum	815	1180	1620	1.2		.01		380.0		

Number of observations: 4
Minimum date: 5/21/93
Maximum date: 7/20/93

****
* Site: 9A *
****

Month: Nov 92 Site: 9A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5										
5	1300		60			.01		2055.0		
Avg.	1300		60			.01		2055.0		

Month: Jul 93 Site: 9A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
20										
20	835	******	******	.2		.10		410.0		
Avg.	835	******	******	.2		.10		410.0		

Summary for site: 9A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1068	******	******	.2		.06		1232.5		
Minumum	835	******	60	.2		.01		410.0		
Maximum	1300	******	******	.2		.10		2055.0		

Number of observations: 4
Minimum date: 11/05/92
Maximum date: 7/20/93

****
* Site: P1 *
****

Month: Jul 93 Site: P1

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1035	0	0	.4		.04		40.0		
Avg.	1035	0	0	.4		.04		40.0		

Summary for site: P1

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1035	0	0	.4		.04		40.0		
Minumum	1035	0	0	.4		.04		40.0		
Maximum	1035	0	0	.4		.04		40.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

```
***************
* Site: P2    *
***************
```

Month: Jul 93 Site: P2

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1050	0	0	.2		.02		38.0		
Avg.	1050	0	0	.2		.02		38.0		

Summary for site: P2

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1050	0	0	.2		.02		38.0		
Minumum	1050	0	0	.2		.02		38.0		
Maximum	1050	0	0	.2		.02		38.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

****
* Site: P2A *
****

Month: Jul 93 Site: P2A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1050	0	0	.1		.01		52.0		
Avg.	1050	0	0	.1		.01		52.0		

Summary for site: P2A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1050	0	0	.1		.01		52.0		
Minumum	1050	0	0	.1		.01		52.0		
Maximum	1050	0	0	.1		.01		52.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

```
***************
* Site: P3    *
***************
```

Month: Jul 93 Site: P3

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1115	0	0	.1		.01		240.0		
Avg.	1115	0	0	.1		.01		240.0		

Summary for site: P3

	Time	FColi	EColi	Am	TP	KN	CHl	Cond	Ca	Mg
Average	1115	0	0	.1		.01		240.0		
Minumum	1115	0	0	.1		.01		240.0		
Maximum	1115	0	0	.1		.01		240.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

****
* Site: P3A *
****

Month: Jul 93 Site: P3A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1120	0	0	.1		.01		66.0		
Avg.	1120	0	0	.1		.01		66.0		

Summary for site: P3A

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1120	0	0	.1		.01		66.0		
Minumum	1120	0	0	.1		.01		66.0		
Maximum	1120	0	0	.1		.01		66.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

```
***************
* Site: P4    *
***************
```

Month: Jul 93 Site: P4

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
23										
23	1137	0	0	.1		.01		145.0		
Avg.	1137	0	0	.1		.01		145.0		

Summary for site: P4

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	1137	0	0	.1		.01		145.0		
Minumum	1137	0	0	.1		.01		145.0		
Maximum	1137	0	0	.1		.01		145.0		

Number of observations: 2
Minimum date: 7/23/93
Maximum date: 7/23/93

```
***************
* Site: P5    *
***************
```

Month: May 93 Site: P5

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
28	716	0	0	.1		.01		110.0		
28	730	0	0	.1		.01				
Avg.	723	0	0	.1		.01		110.0		

```
|-----------------------|
| Summary for site: P5  |
|-----------------------|
```

	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	723	0	0	.1		.01		110.0		
Minumum	716	0	0	.1		.01		110.0		
Maximum	730	0	0	.1		.01		110.0		

Number of observations: 2
Minimum date: 5/28/93
Maximum date: 5/28/93

****
* Site: P5A *
****

Month: Nov 92 Site: P5A

Day	Time	Fcoli	Ecoli	Am	TP	TKN	CHl	Cond	Ca	Mg
5										
5	1040		0			.01		160.0		
24										
24	934		0			.42		120.0		
Avg.	987		0			.22		140.0		

Summary for site: P5A

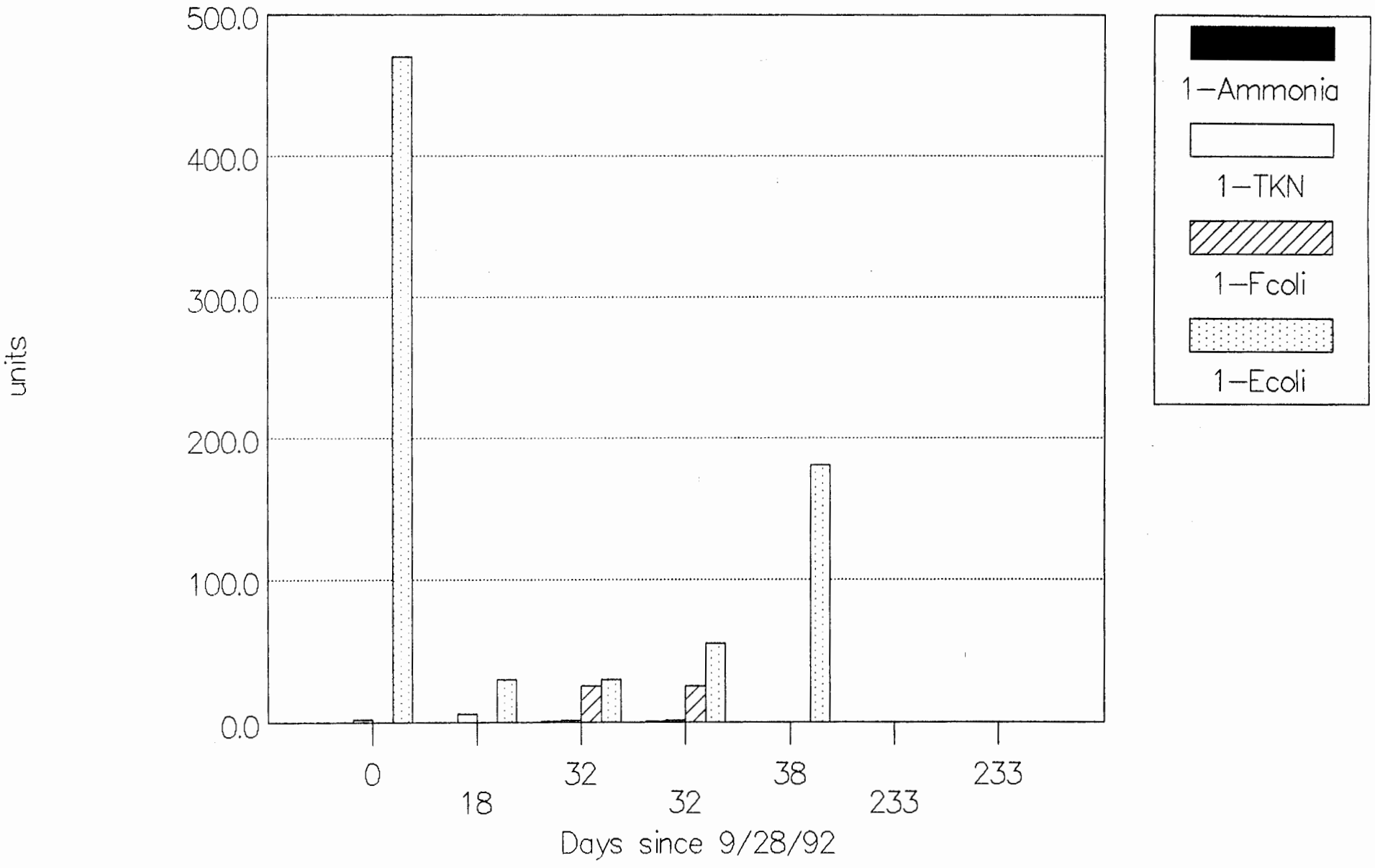
	Time	FColi	EColi	Am	TP	TKN	CHl	Cond	Ca	Mg
Average	987		0			.22		140.0		
Minumum	934		0			.01		120.0		
Maximum	1040		0			.42		160.0		

Number of observations: 4
Minimum date: 11/05/92
Maximum date: 11/24/92

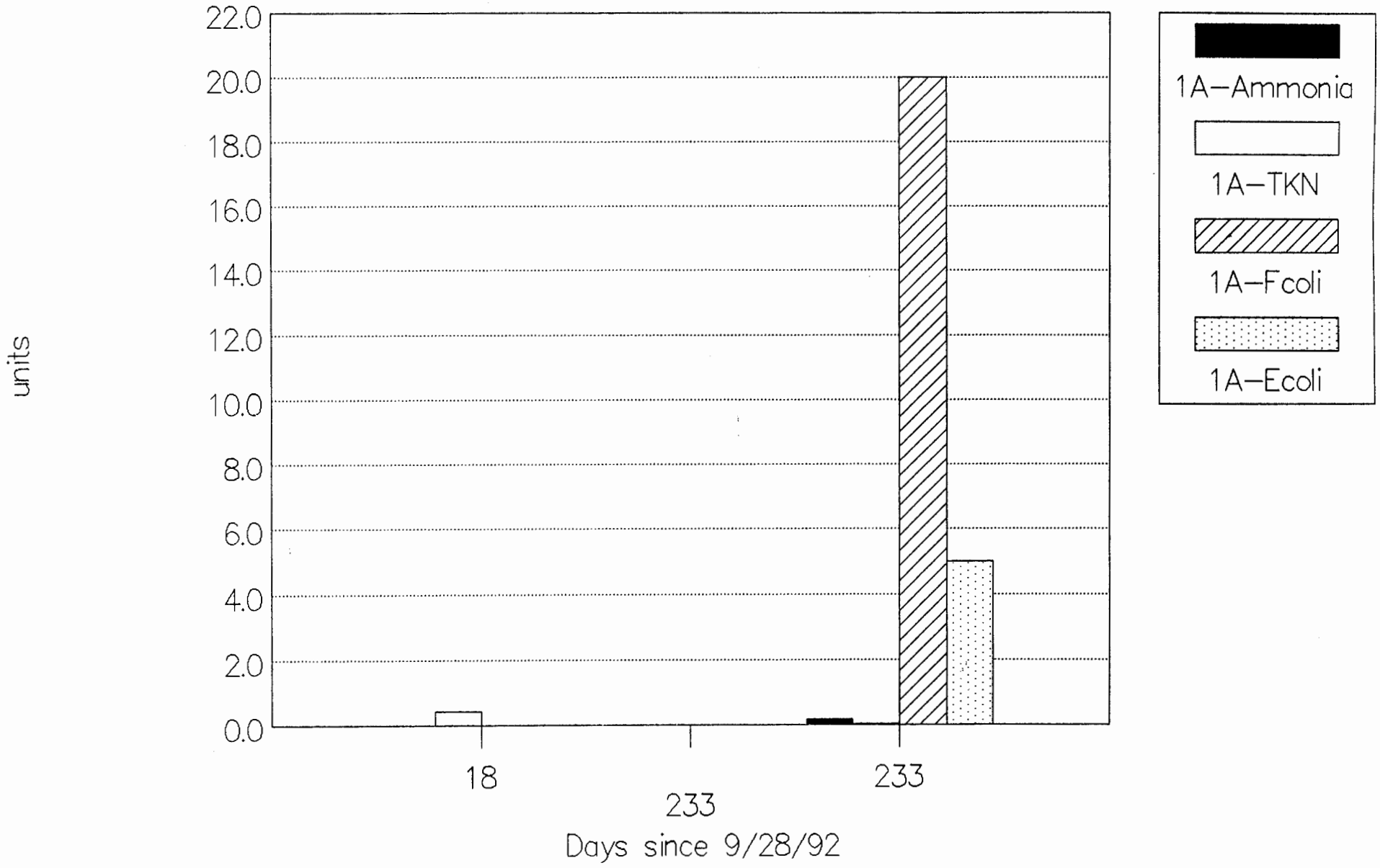
Report Summary

Total number of observations for this report: 195
Minimum Date: 1/01/90
Maximum Date: 7/23/93

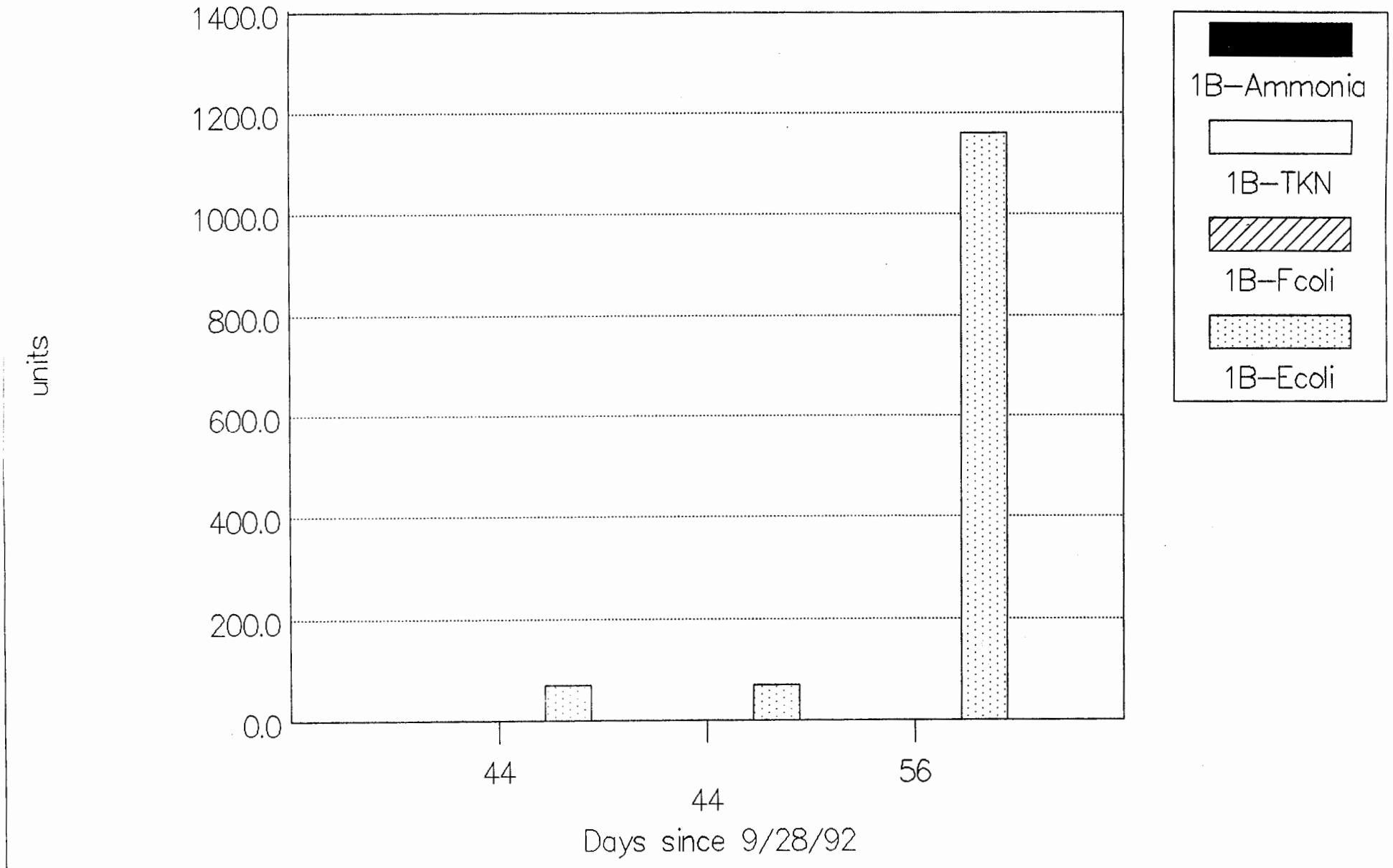
ST-1


500.0
400.0
300.0
200.0
100.0
0.0
units
0
18
32
32
38
233
233
Days since 9/28/92
1-Ammonia
1-TKN
1-Fcoli
1-Ecoli

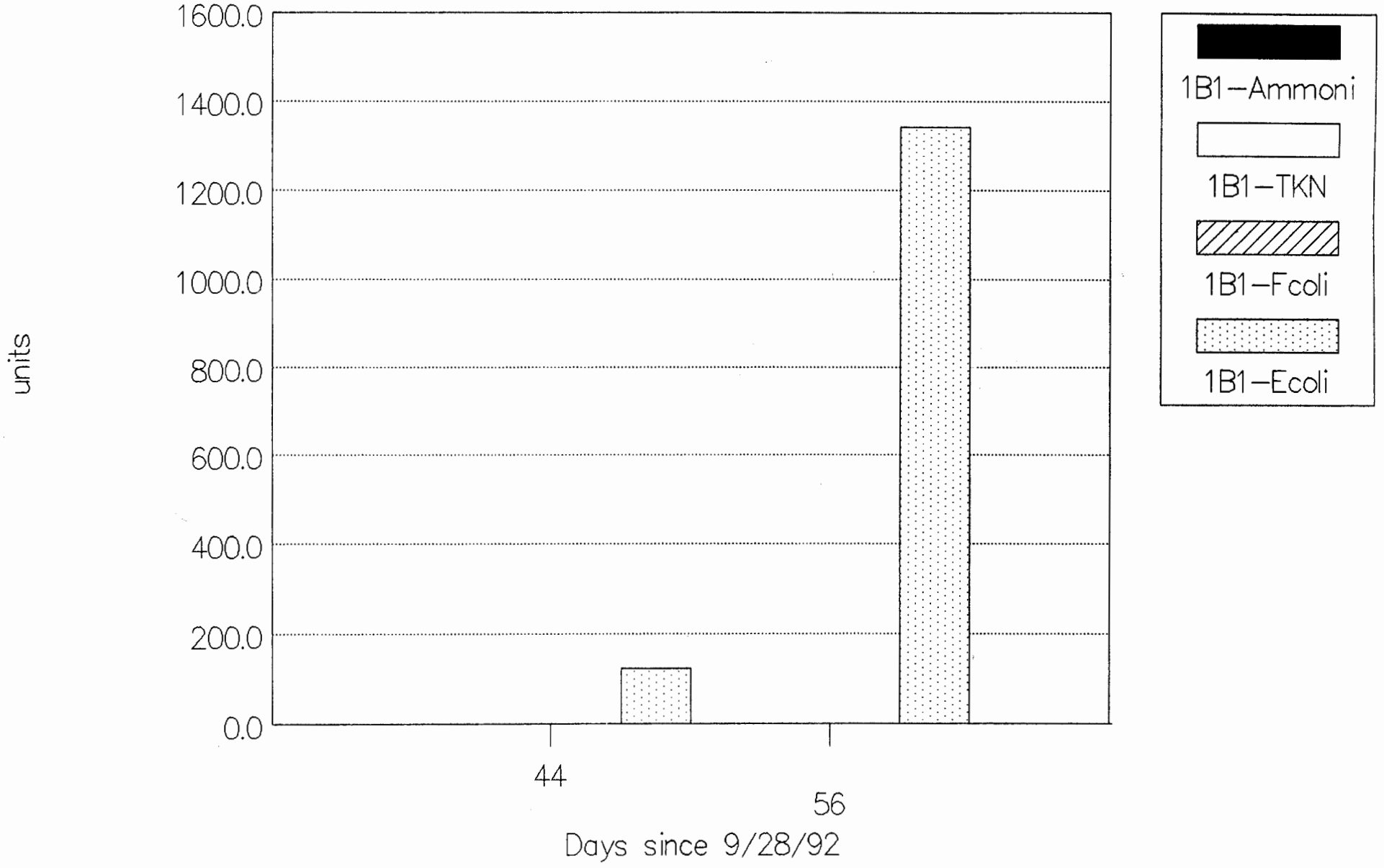
ST-1A


22.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
units
18
233
233
Days since 9/28/92
1A-Ammonia
1A-TKN
1A-Fcoli
1A-Ecoli

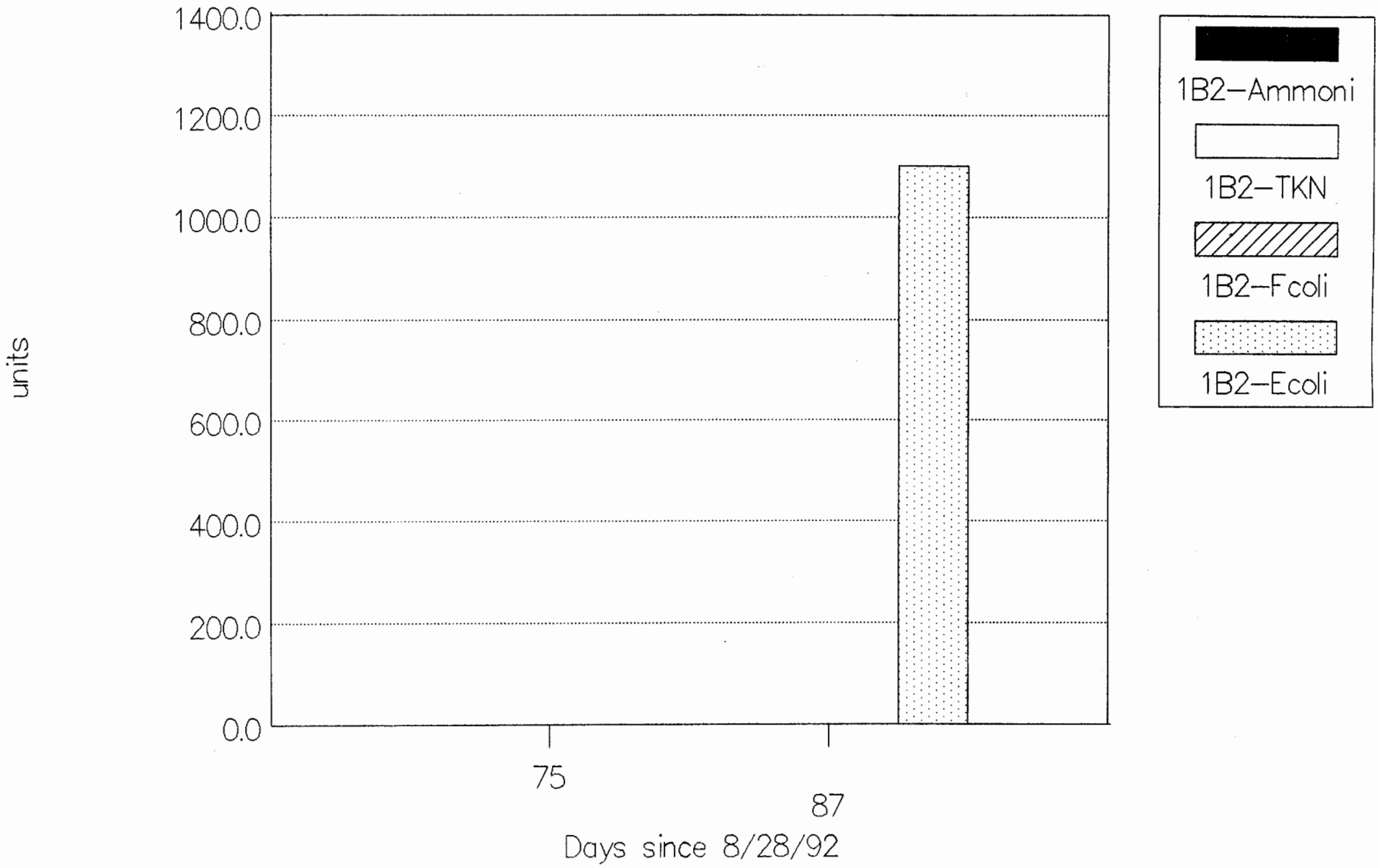
ST-1B


1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
44
44
56
Days since 9/28/92
1B-Ammonia
1B-TKN
1B-Fcoli
1B-Ecoli

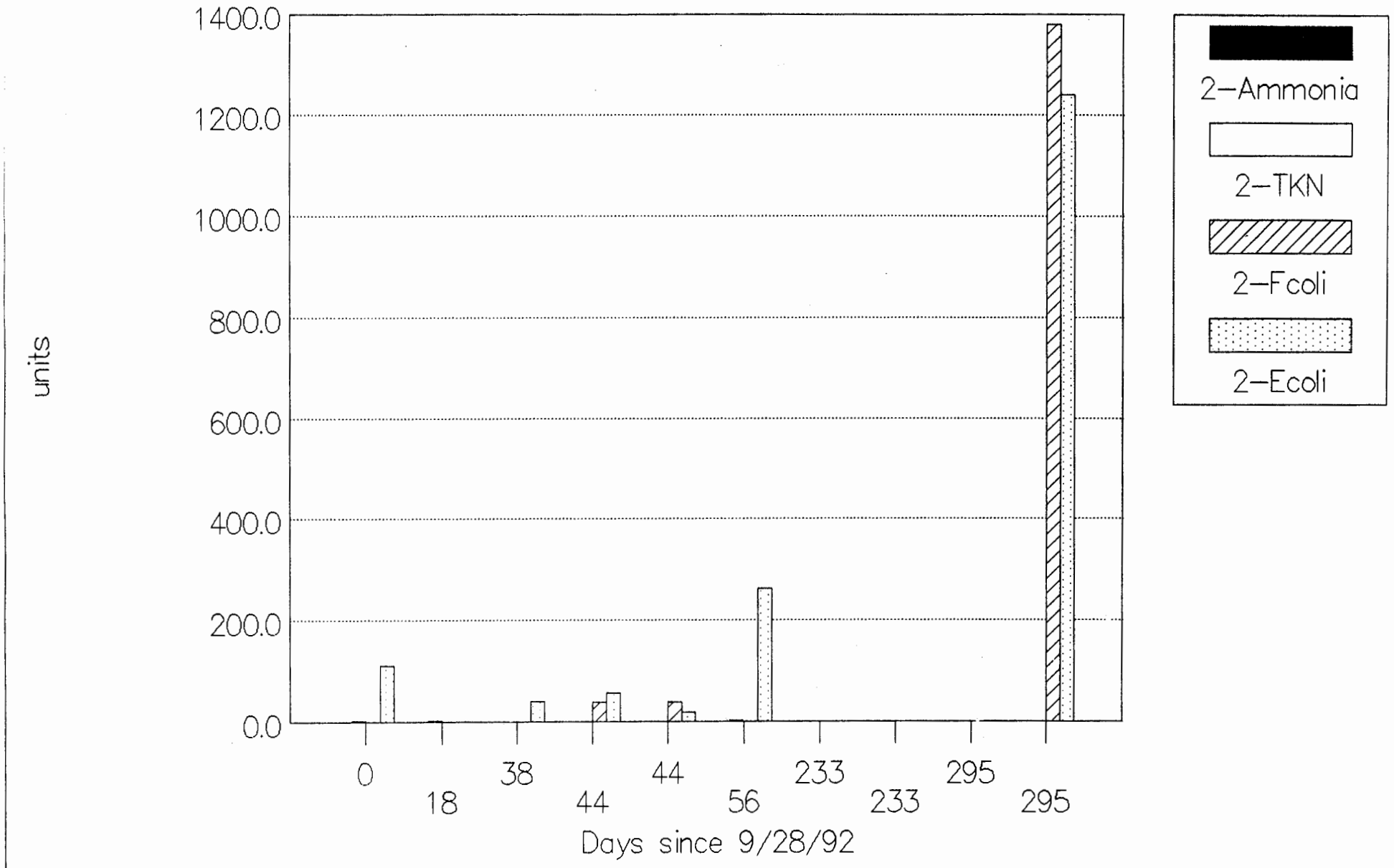
ST-1B1


1600.0
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
44
56
Days since 9/28/92
1B1-Ammoni
1B1-TKN
1B1-Fcoli
1B1-Ecoli

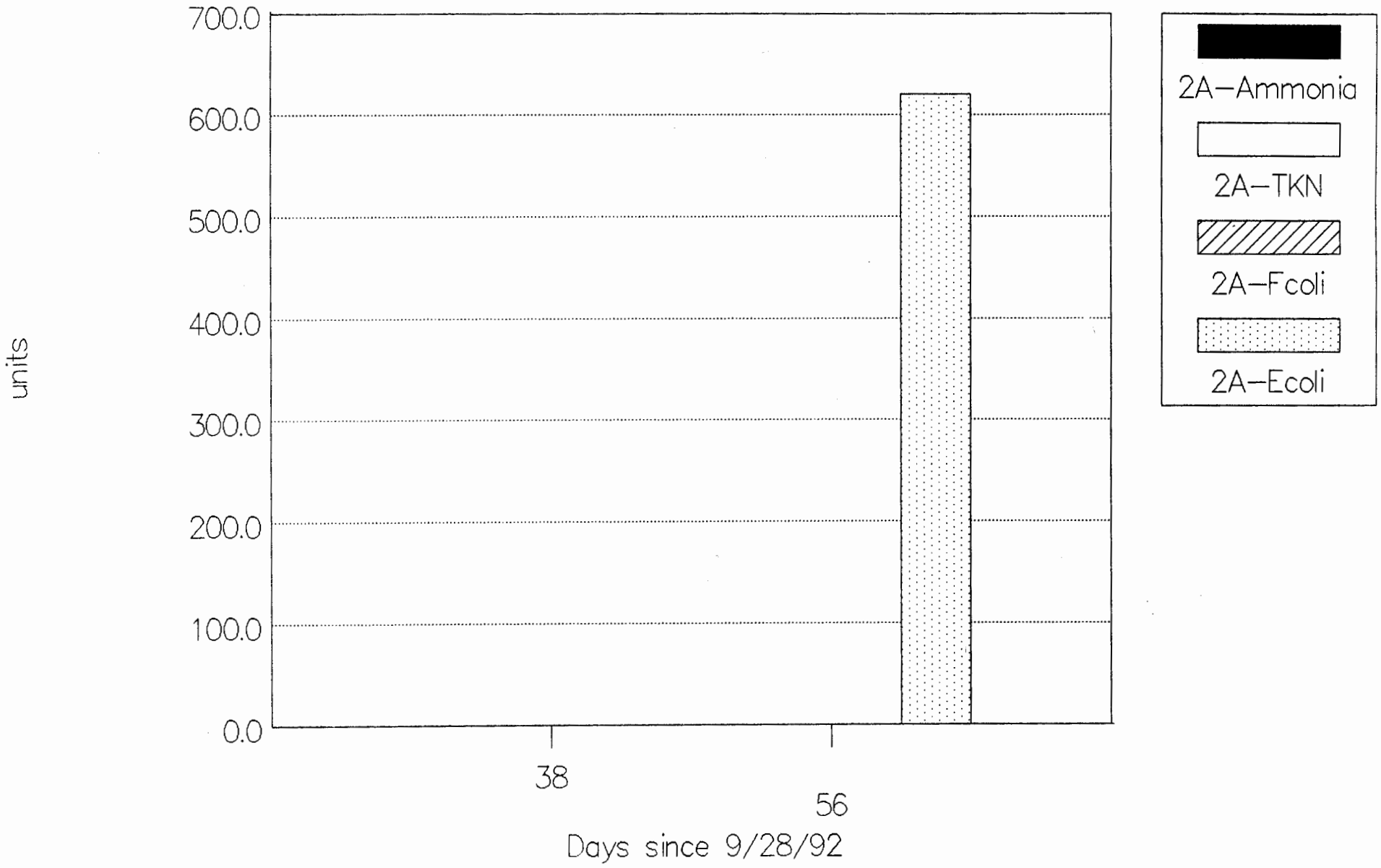
ST-1B2


1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
75
87
Days since 8/28/92
1B2-Ammoni
1B2-TKN
1B2-Fcoli
1B2-Ecoli

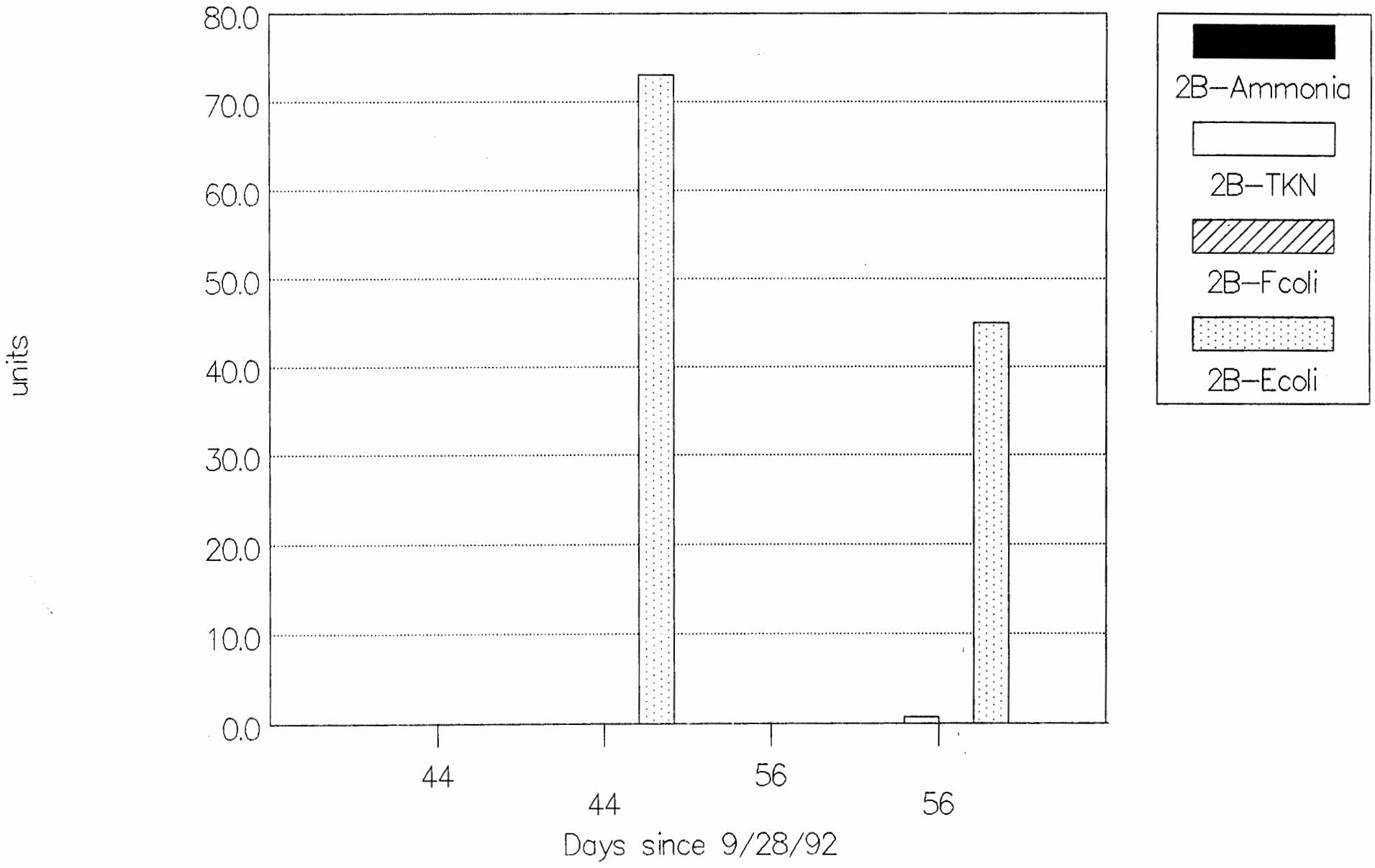
ST-2


1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
0
18
38
44
44
56
233
233
295
295
Days since 9/28/92
2-Ammonia
2-TKN
2-Fcoli
2-Ecoli

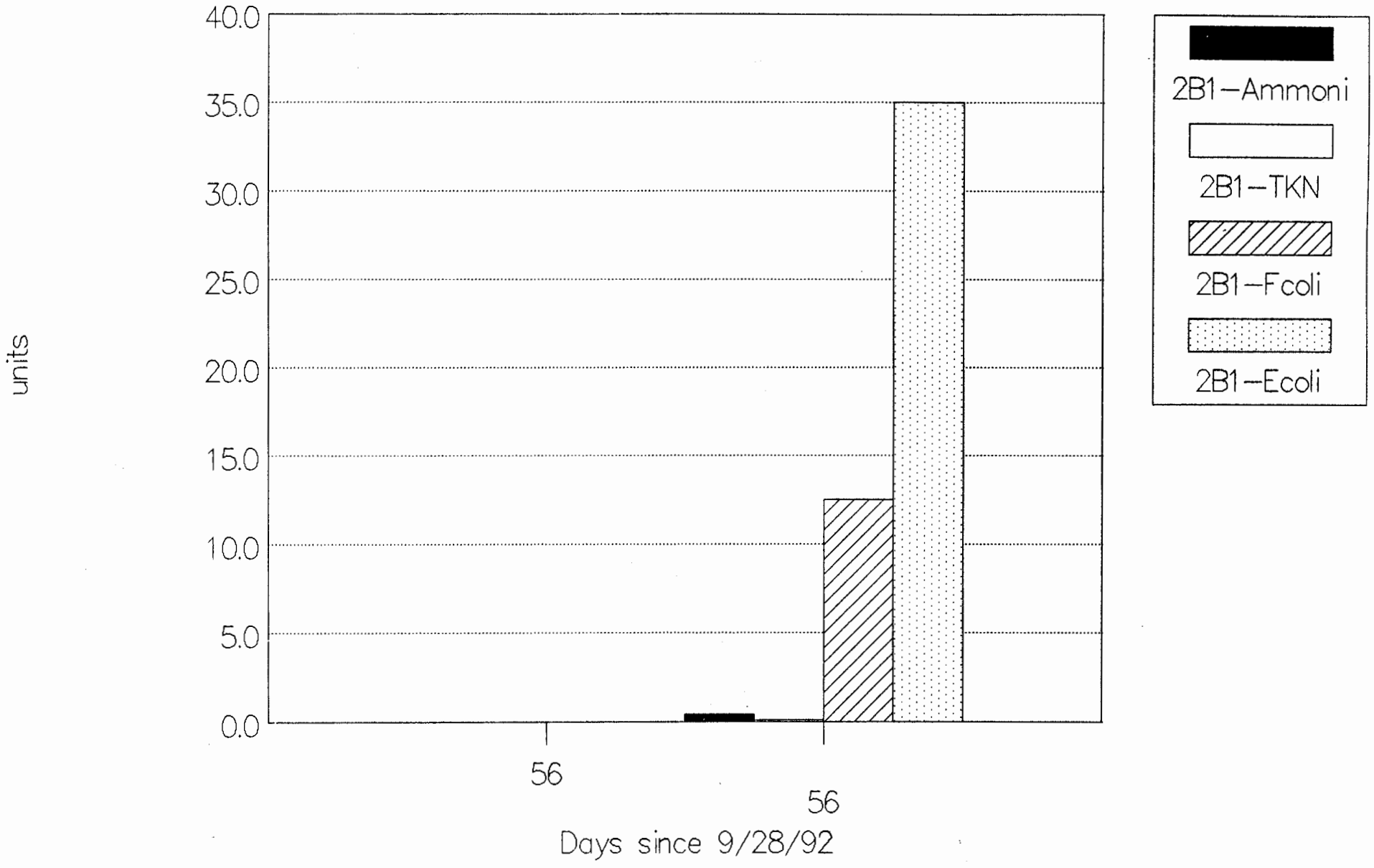
ST-2A


700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
units
38
56
Days since 9/28/92
2A-Ammonia
2A-TKN
2A-Fcoli
2A-Ecoli

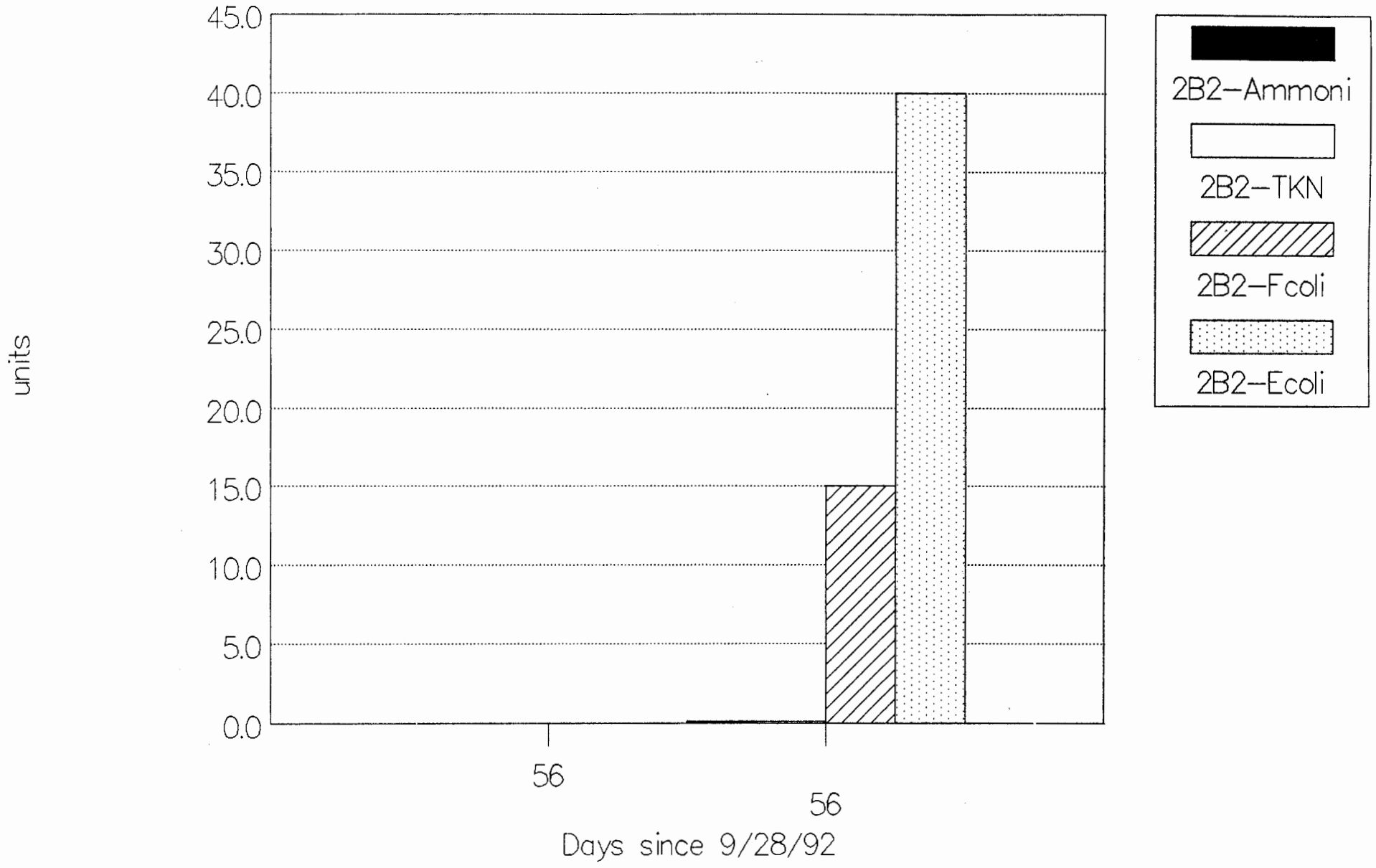
ST-2B


80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
units
44
44
56
56
Days since 9/28/92
2B-Ammonia
2B-TKN
2B-Fcoli
2B-Ecoli

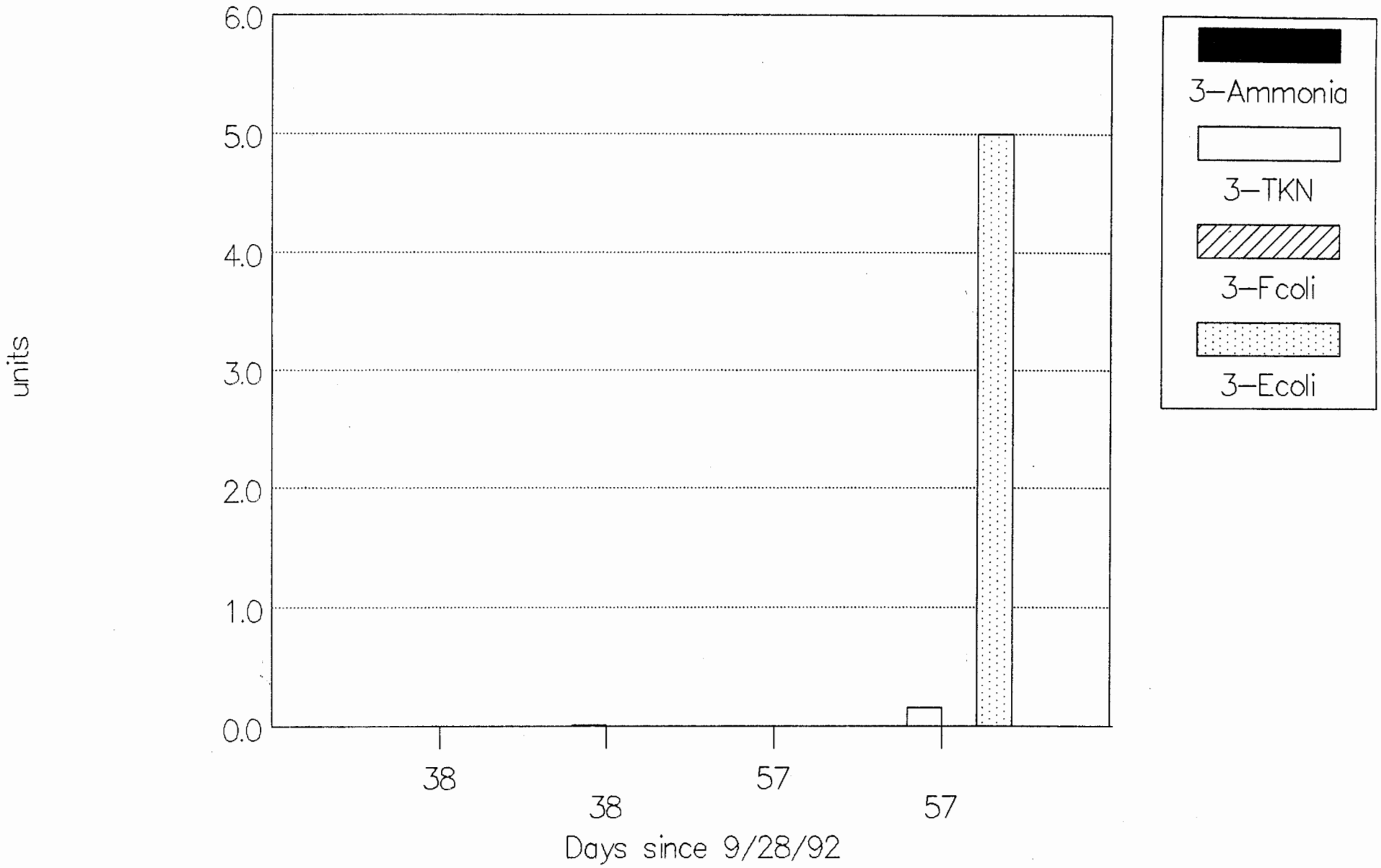
ST-2B1


40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
units
56
56
Days since 9/28/92
2B1-Ammoni
2B1-TKN
2B1-Fcoli
2B1-Ecoli

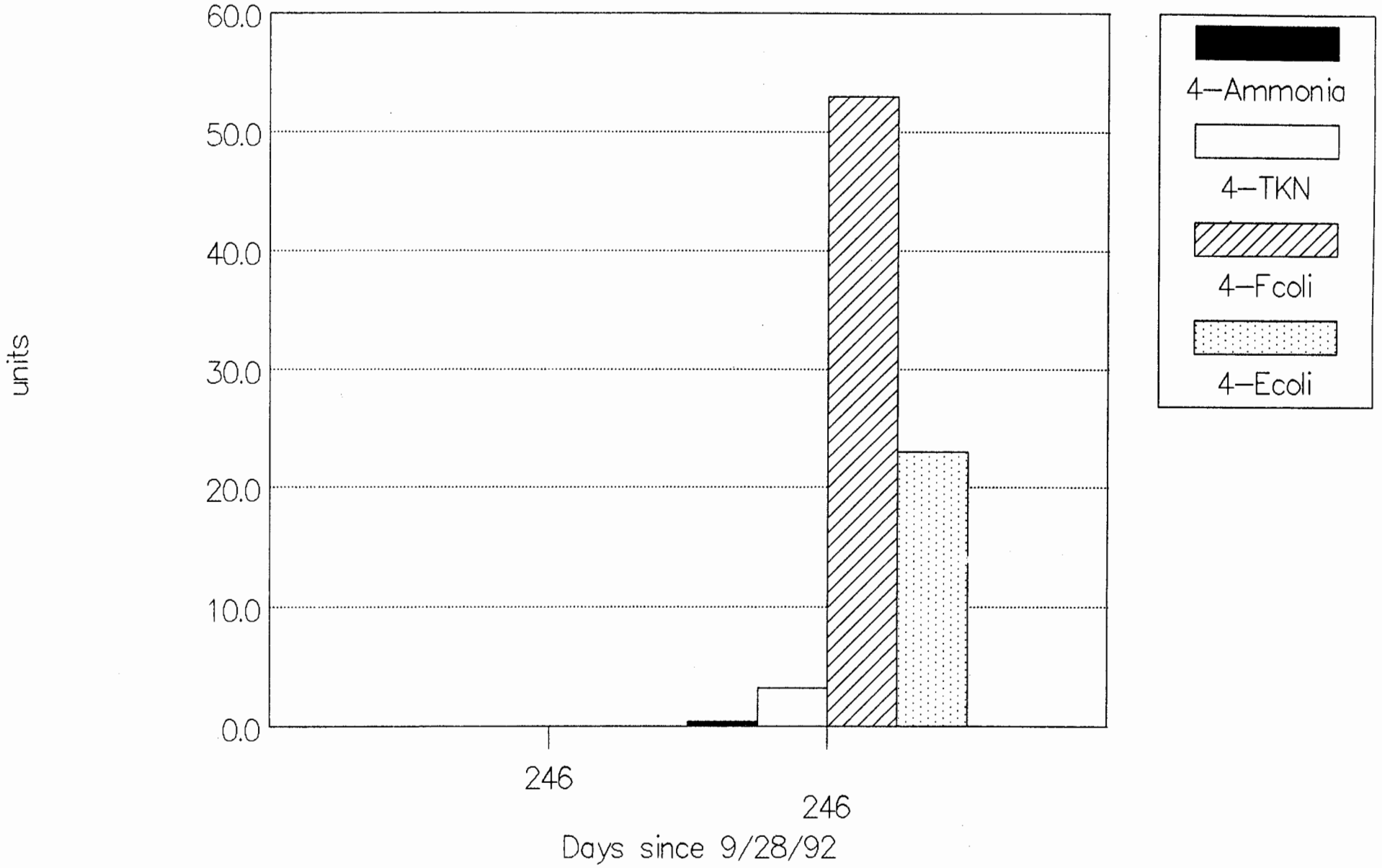
ST-2B2


45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
units
56
56
Days since 9/28/92
2B2-Ammoni
2B2-TKN
2B2-Fcoli
2B2-Ecoli

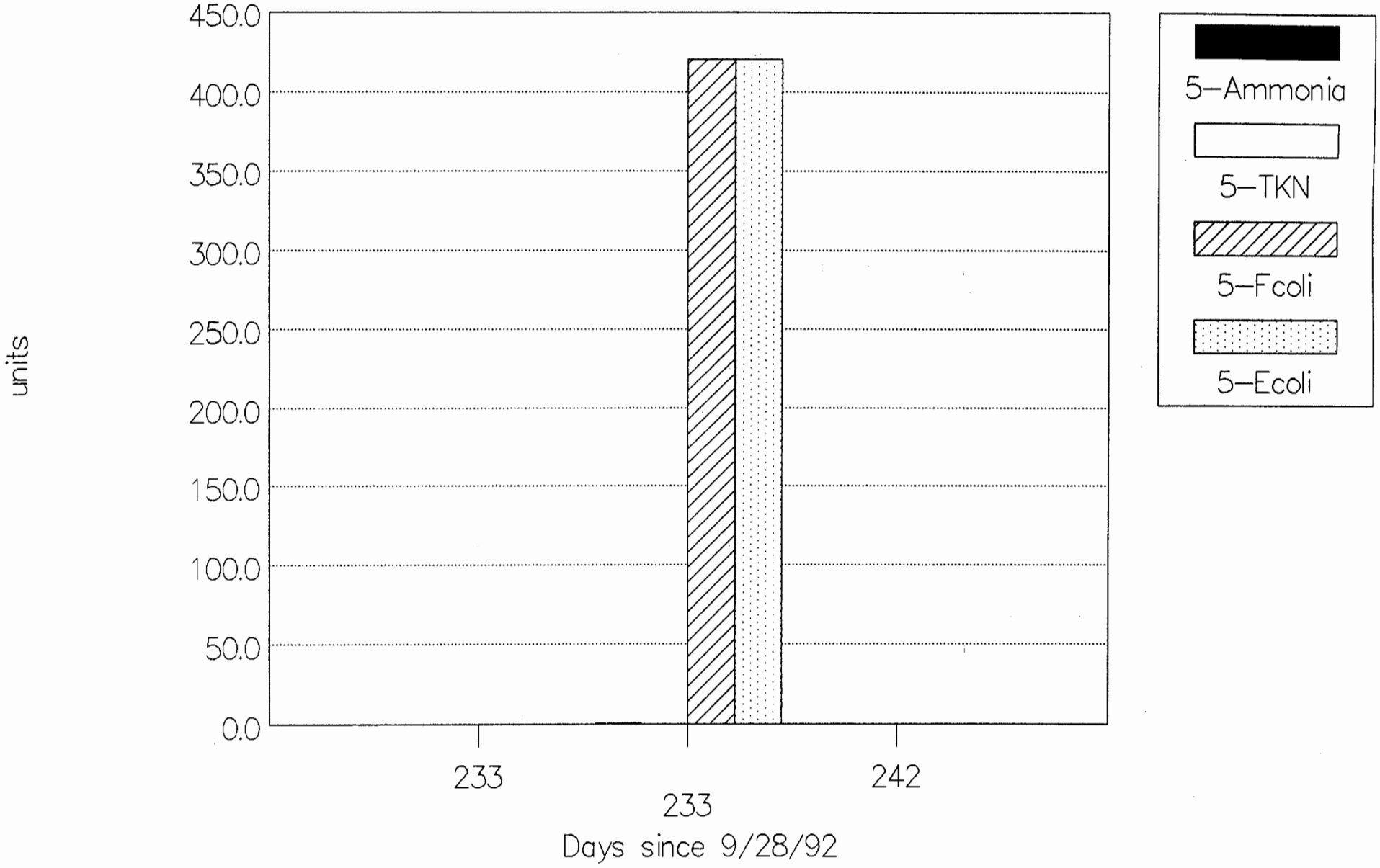
ST-3


6.0
5.0
4.0
3.0
2.0
1.0
0.0
units
38
38
57
57
Days since 9/28/92
3-Ammonia
3-TKN
3-Fcoli
3-Ecoli

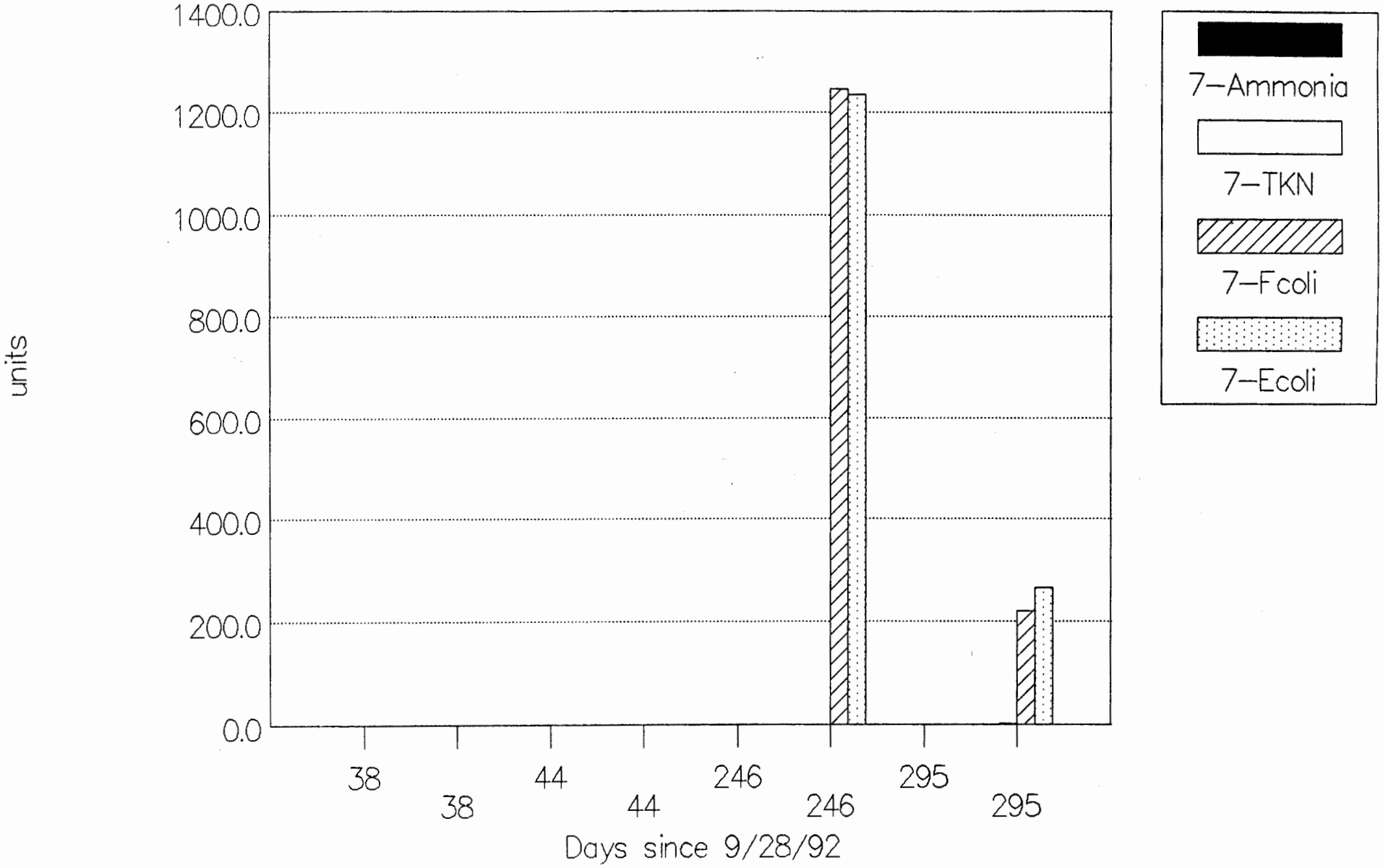
ST-4


60.0
50.0
40.0
30.0
20.0
10.0
0.0
units
246
246
Days since 9/28/92
4-Ammonia
4-TKN
4-Fcoli
4-Ecoli

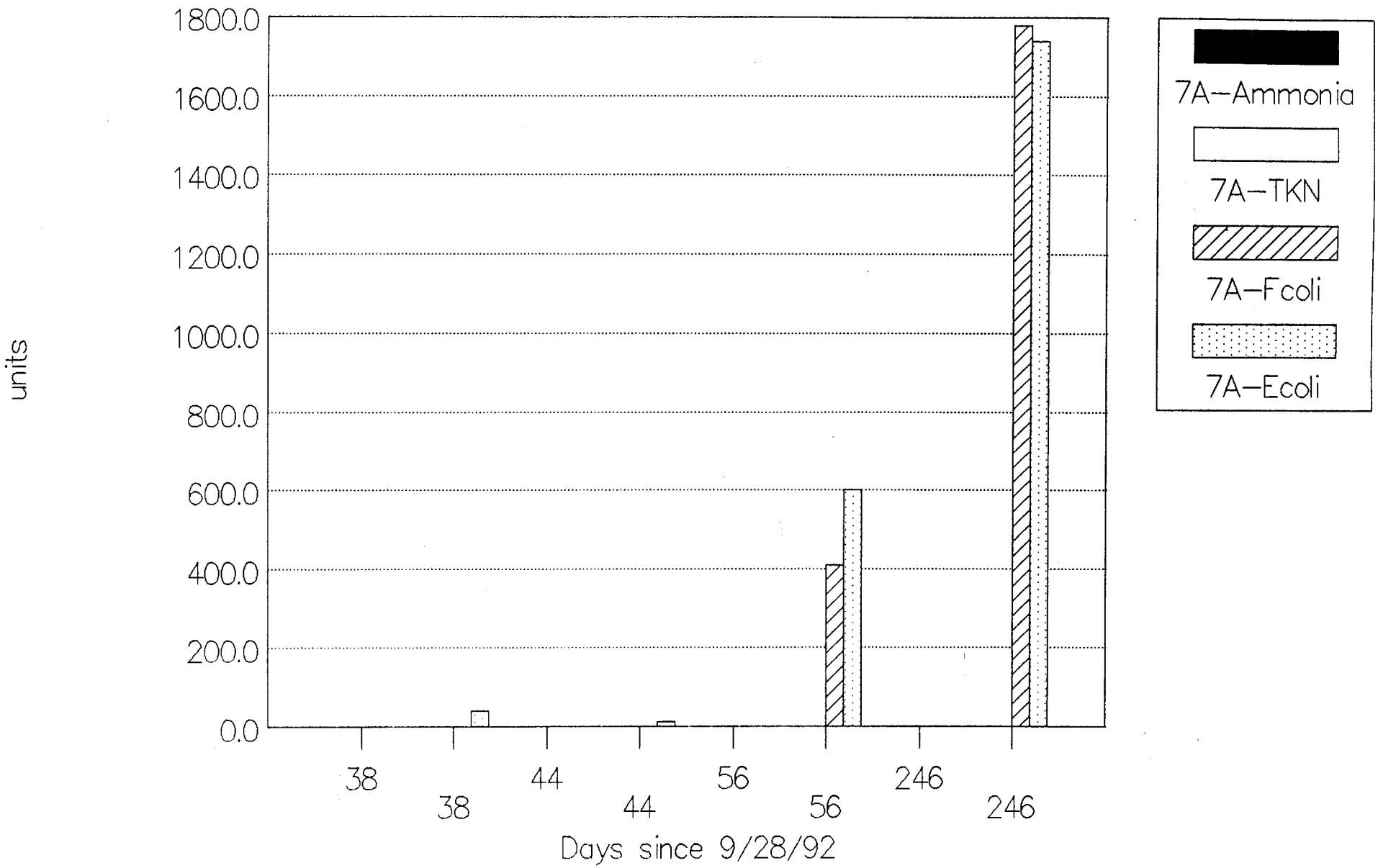
ST-5


450.0
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
units
233
233
242
Days since 9/28/92
5-Ammonia
5-TKN
5-Fcoli
5-Ecoli

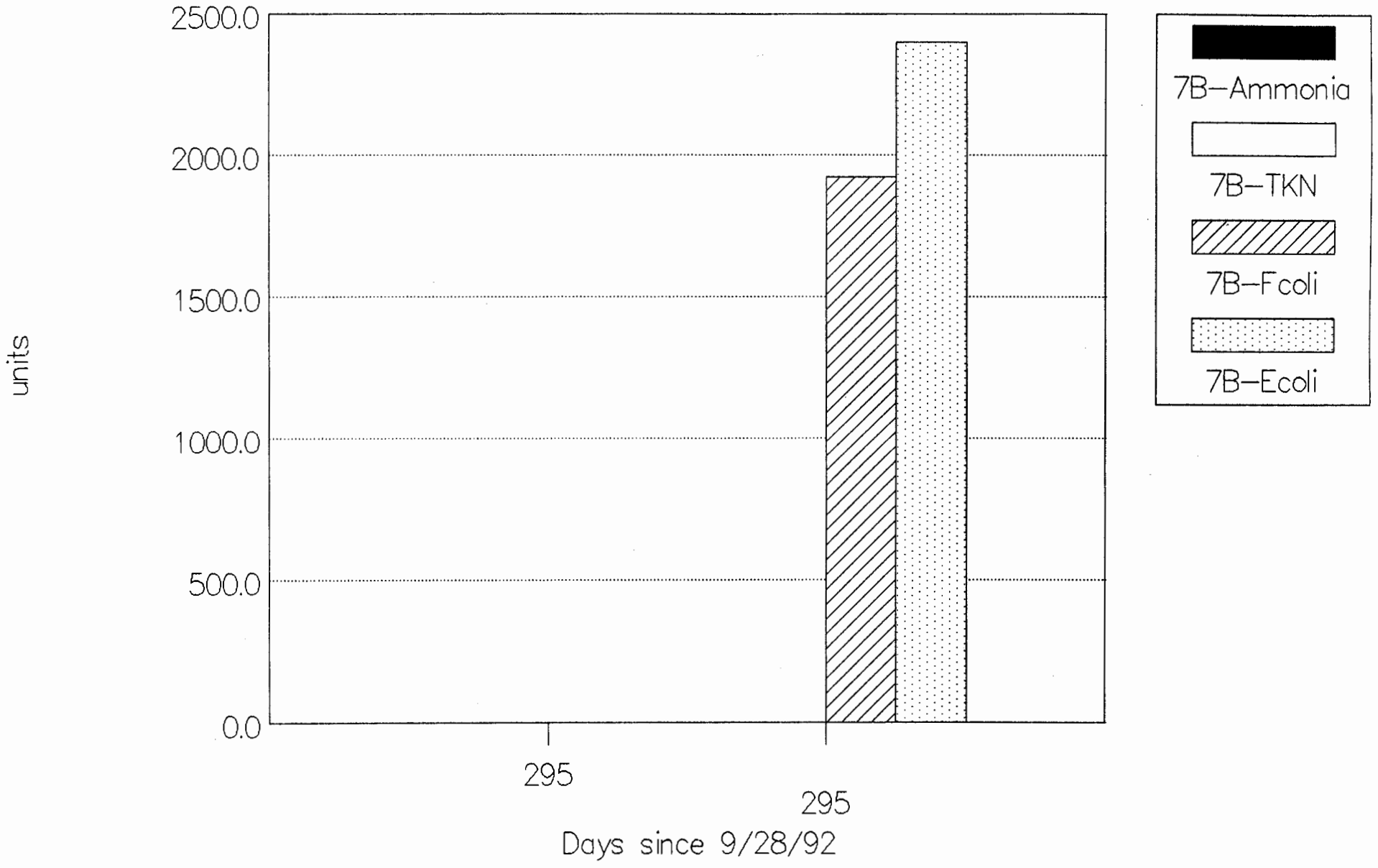
ST-7


1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
38
38
44
44
246
246
295
295
Days since 9/28/92
7-Ammonia
7-TKN
7-Fcoli
7-Ecoli

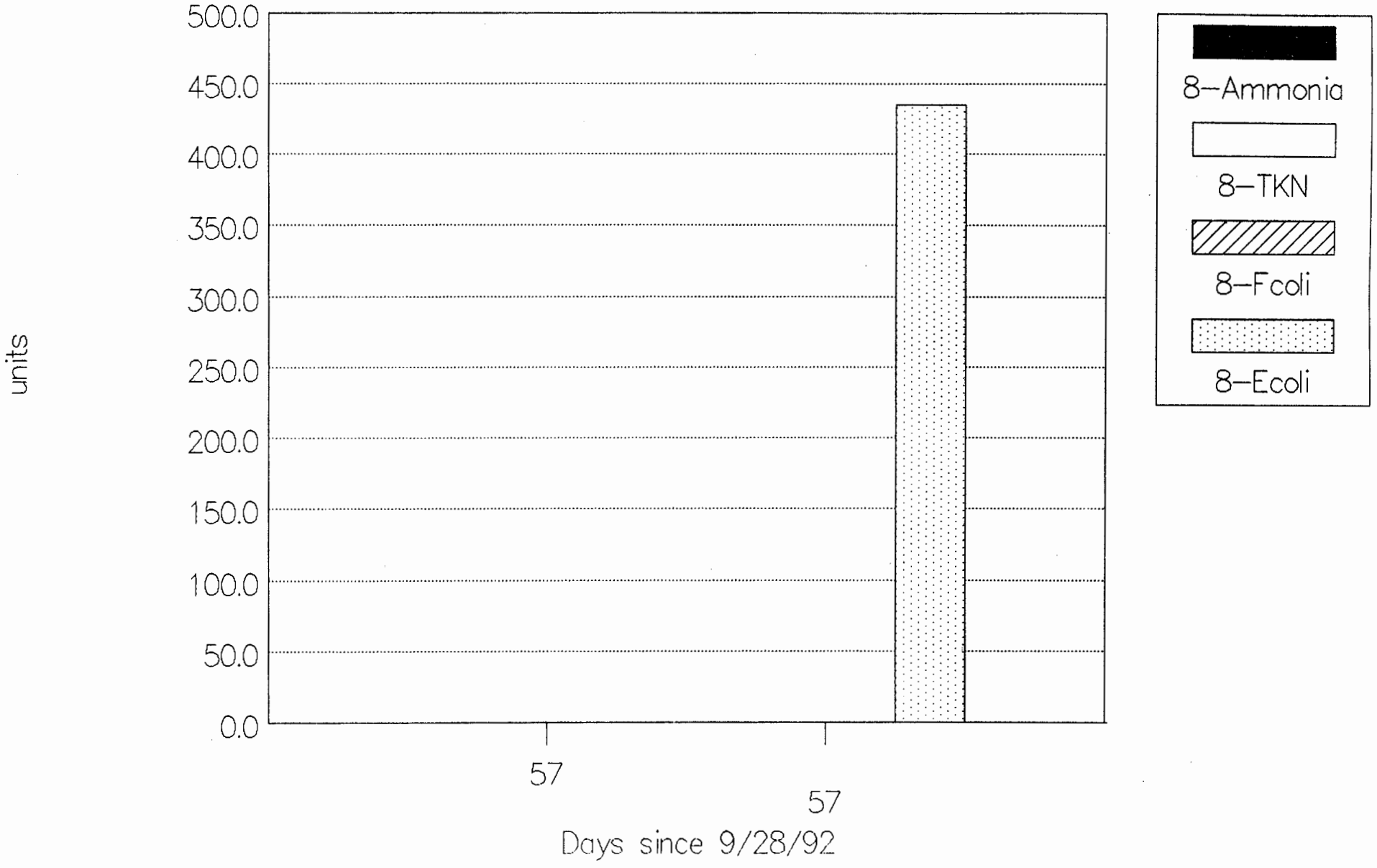
ST-7A


1800.0
1600.0
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
38
38
44
44
56
56
246
246
Days since 9/28/92
7A-Ammonia
7A-TKN
7A-Fcoli
7A-Ecoli

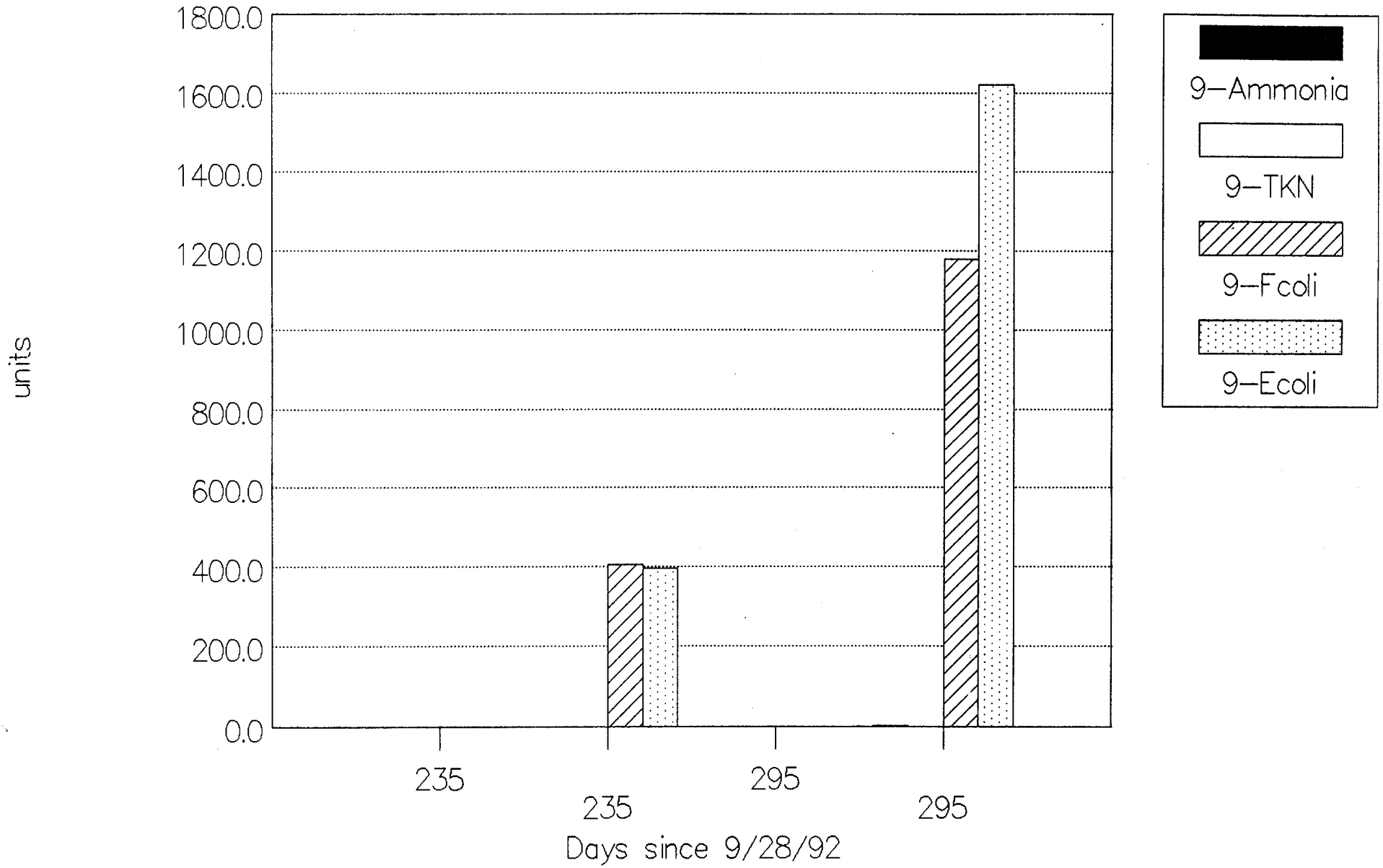
ST-7B


2500.0
2000.0
1500.0
1000.0
500.0
0.0
units
295
295
Days since 9/28/92
7B-Ammonia
7B-TKN
7B-Fcoli
7B-Ecoli

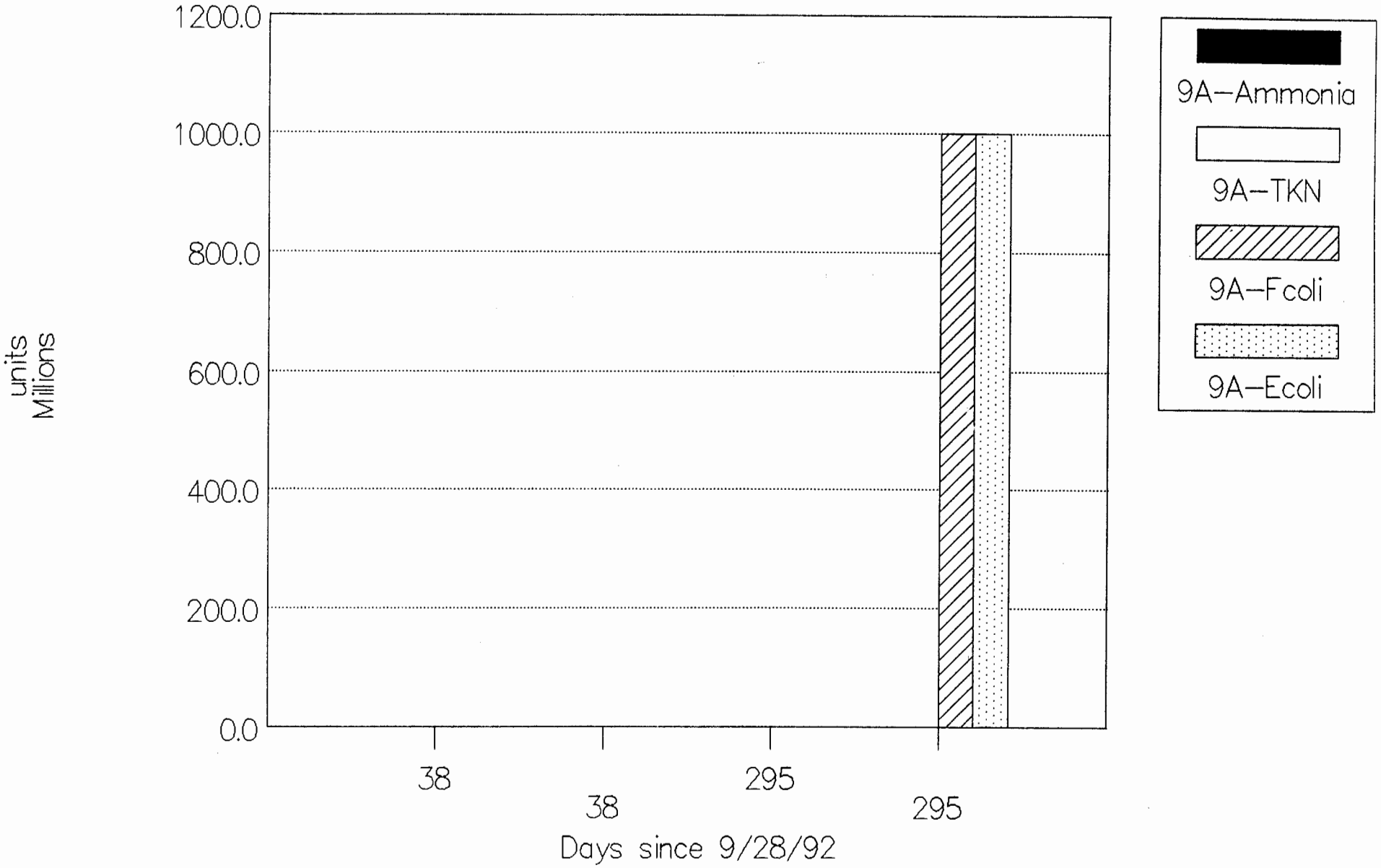
ST-8


500.0
450.0
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
units
57
57
Days since 9/28/92
8-Ammonia
8-TKN
8-Fcoli
8-Ecoli

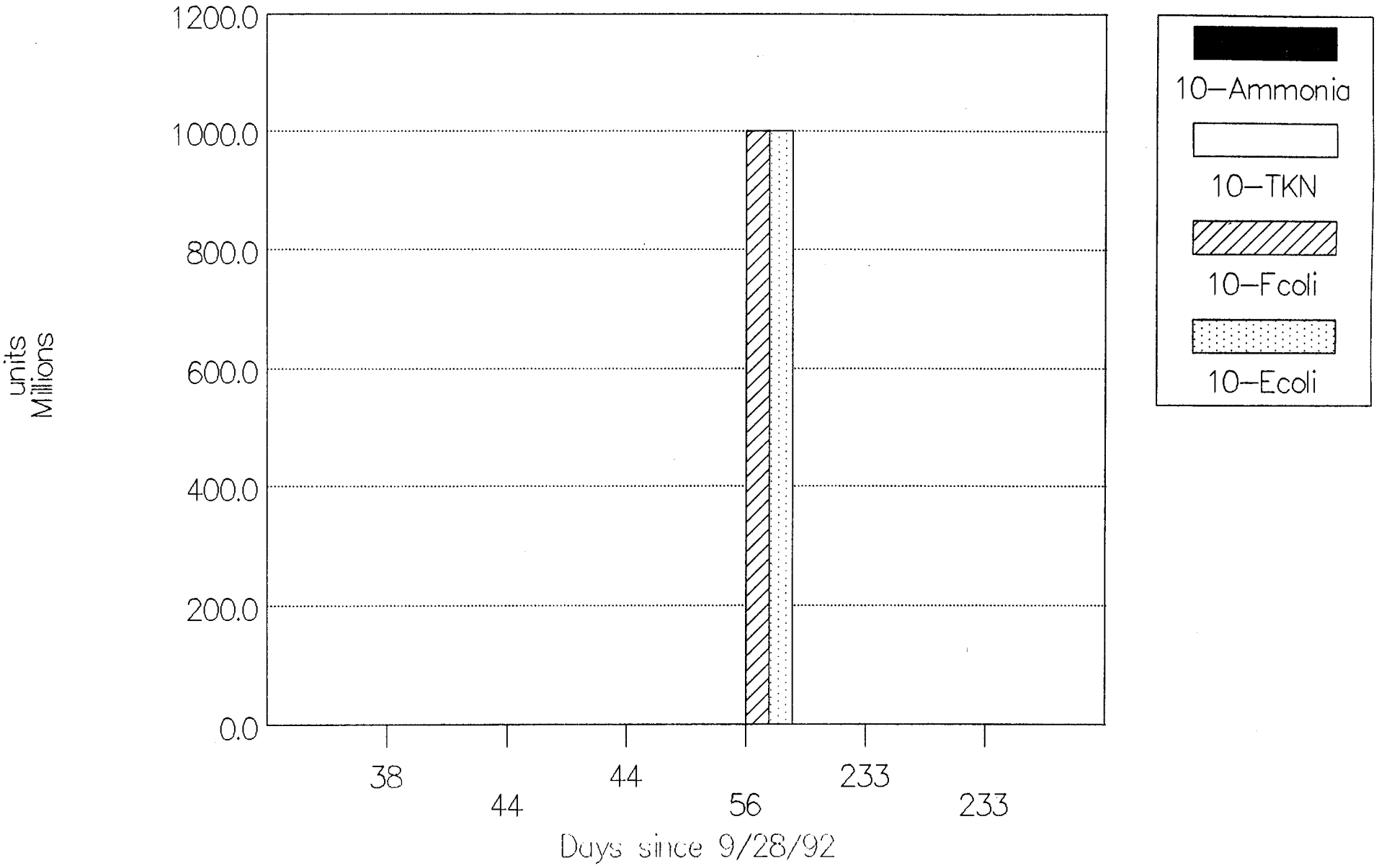
ST-9


1800.0
1600.0
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
235
235
295
295
Days since 9/28/92
9-Ammonia
9-TKN
9-Fcoli
9-Ecoli

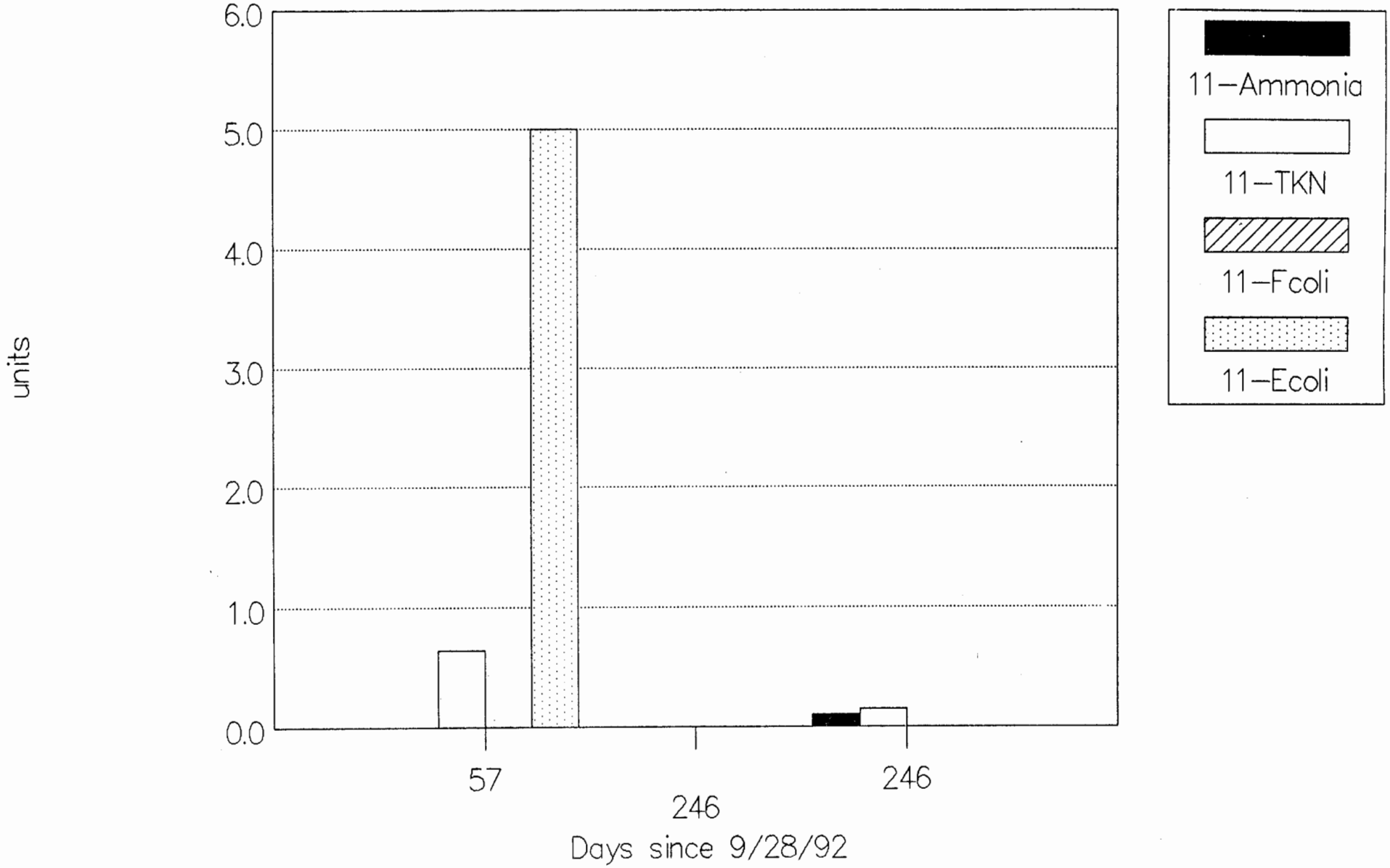
ST-9A


1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
Millions
38
38
295
295
Days since 9/28/92
9A-Ammonia
9A-TKN
9A-Fcoli
9A-Ecoli

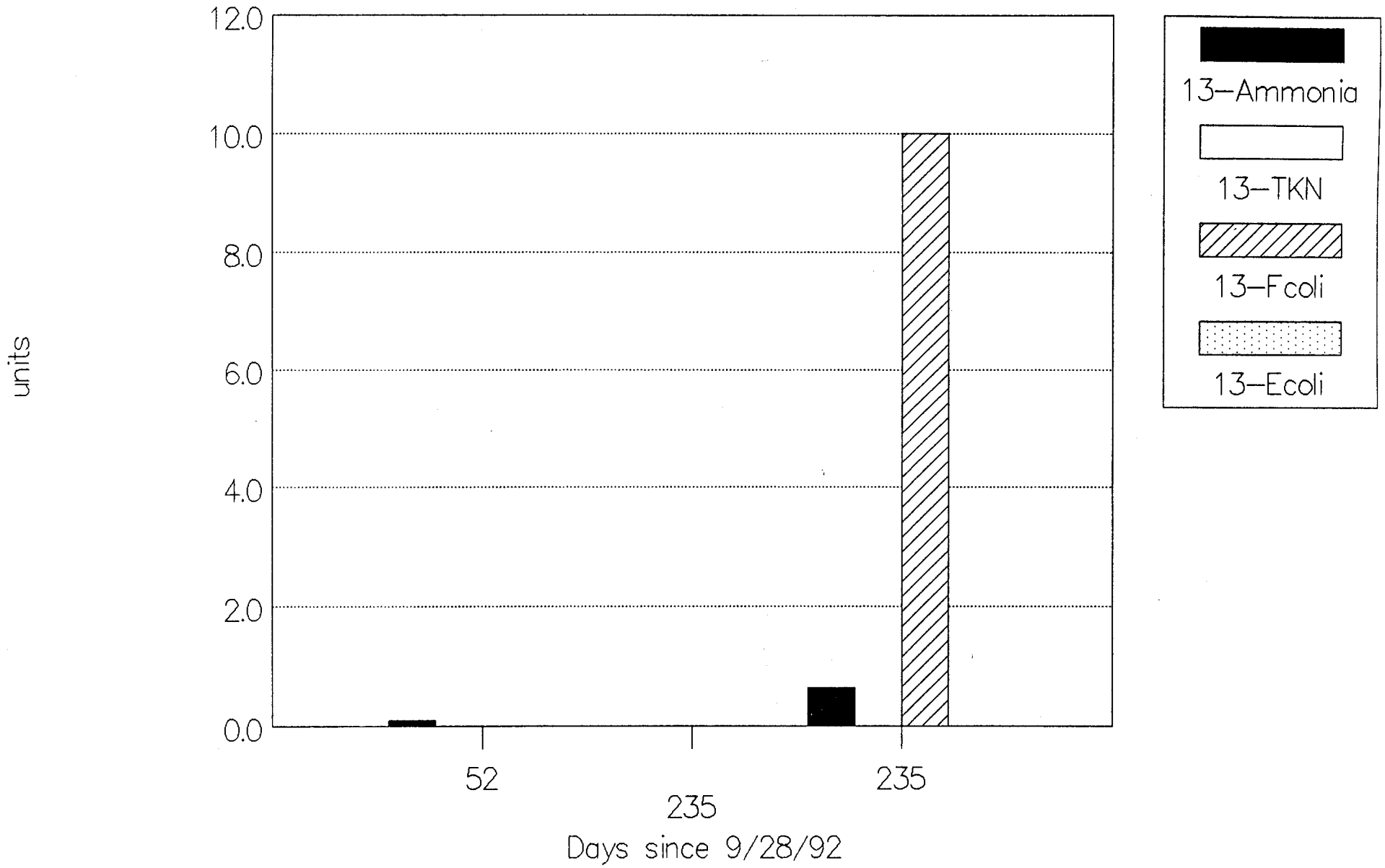
ST-10


1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
units
Millions
38
44
44
56
233
233
Days since 9/28/92
10–Ammonia
10–TKN
10–Fcoli
10–Ecoli

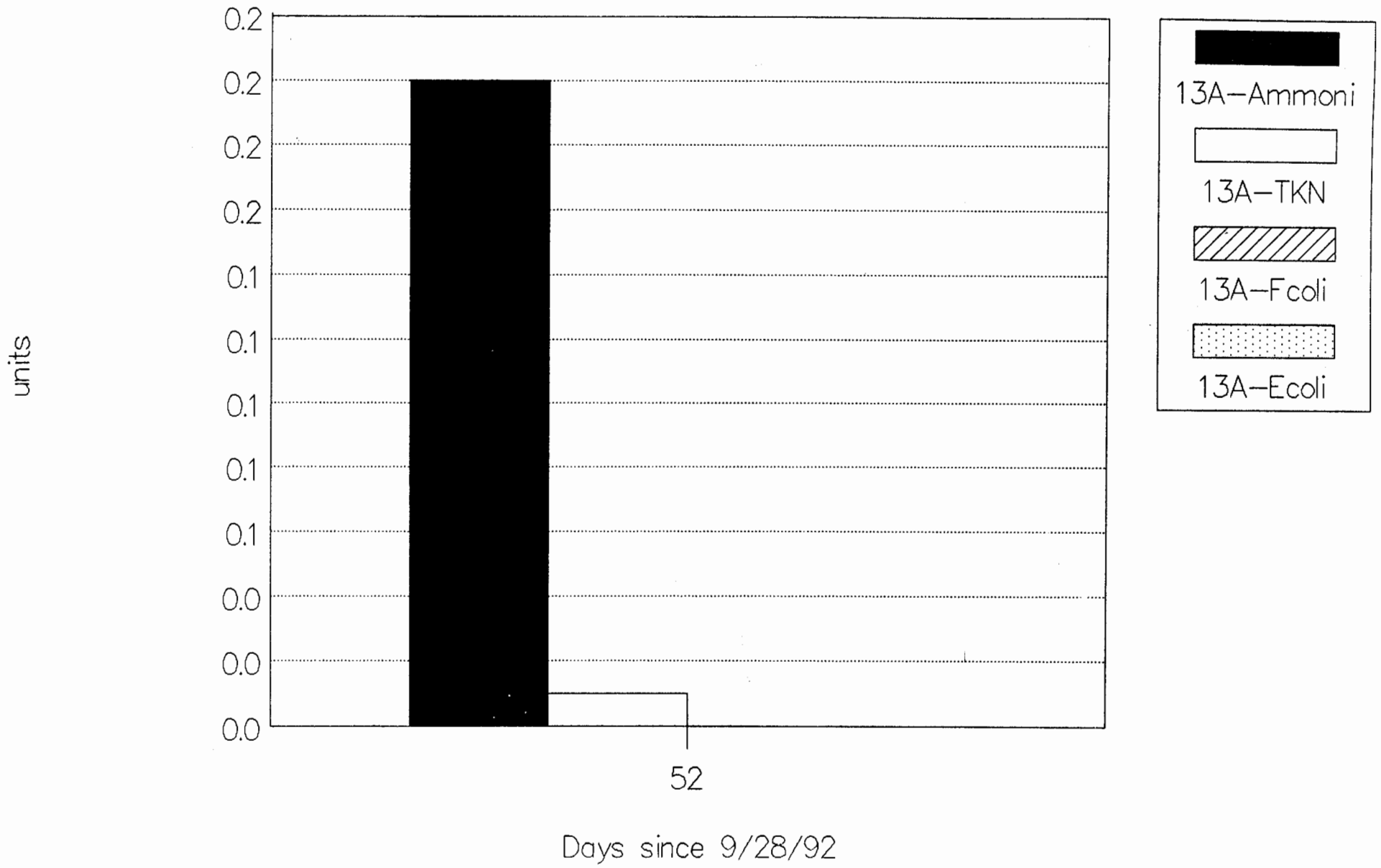
ST-11


6.0
5.0
4.0
3.0
2.0
1.0
0.0
units
57
246
246
Days since 9/28/92
11-Ammonia
11-TKN
11-Fcoli
11-Ecoli

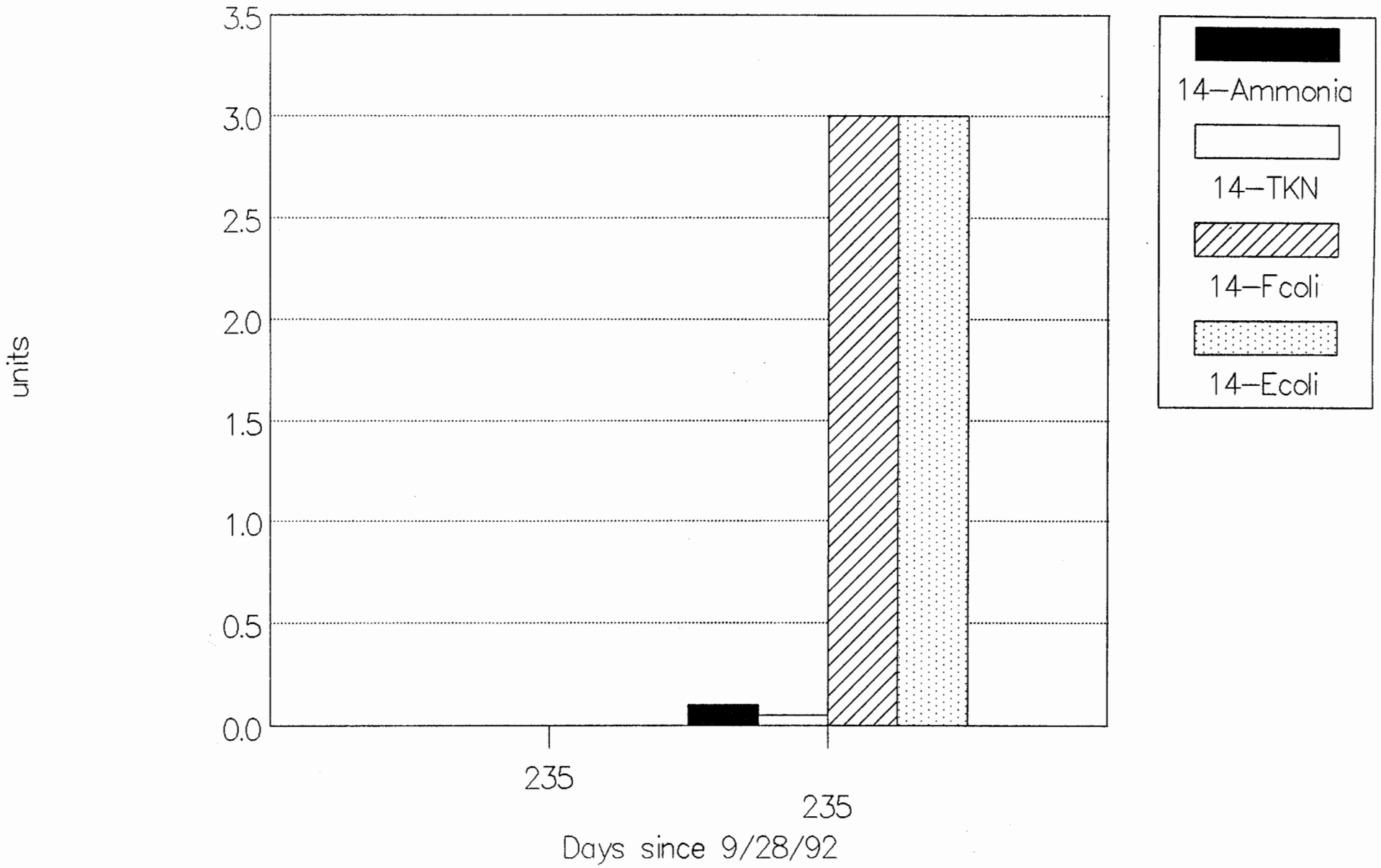
ST-13


12.0
10.0
8.0
6.0
4.0
2.0
0.0
units
52
235
235
Days since 9/28/92
13-Ammonia
13-TKN
13-Fcoli
13-Ecoli

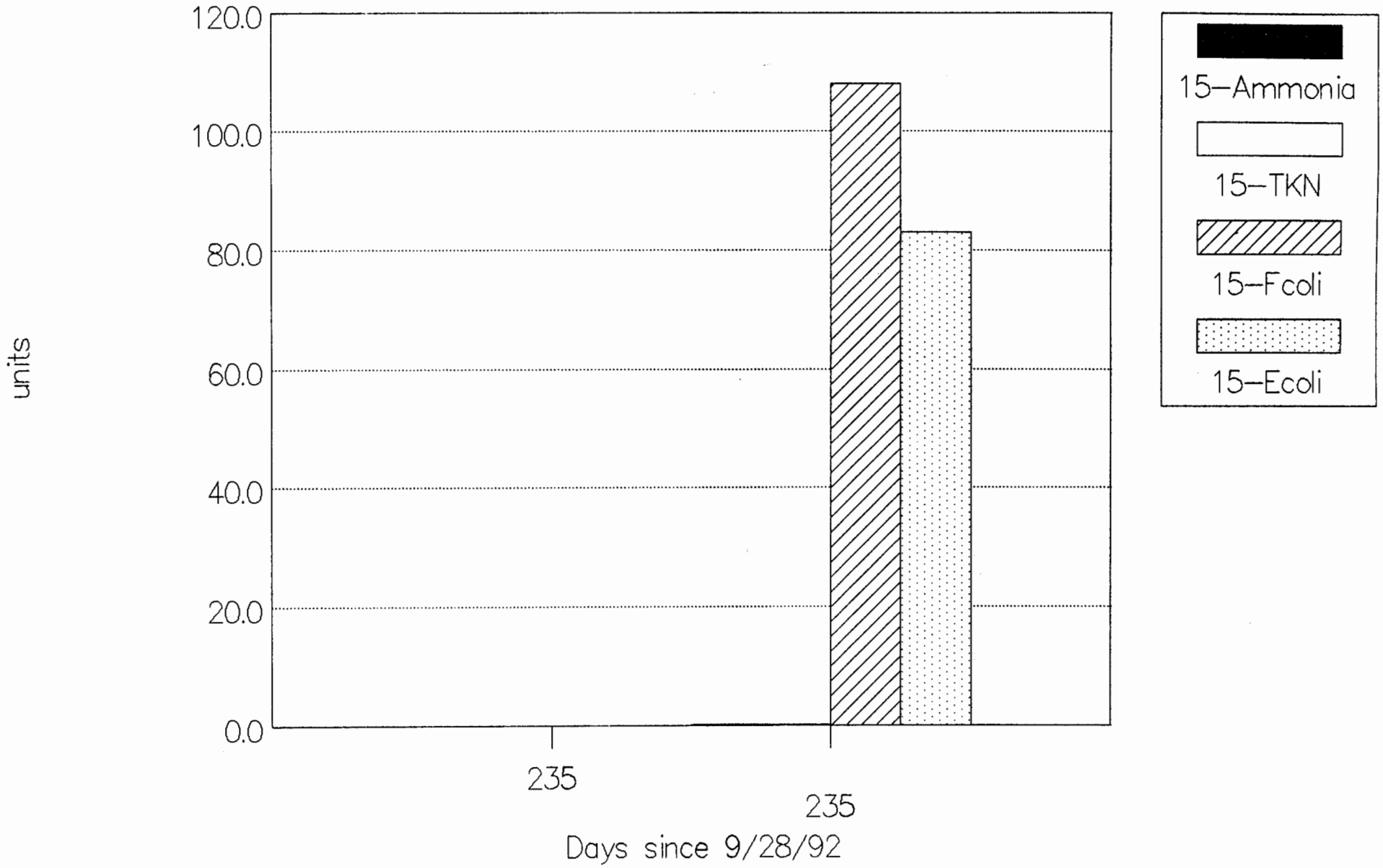
ST-13A


0.2
0.2
0.2
0.2
0.1
0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
52
Days since 9/28/92
13A-Ammoni
13A-TKN
13A-Fcoli
13A-Ecoli

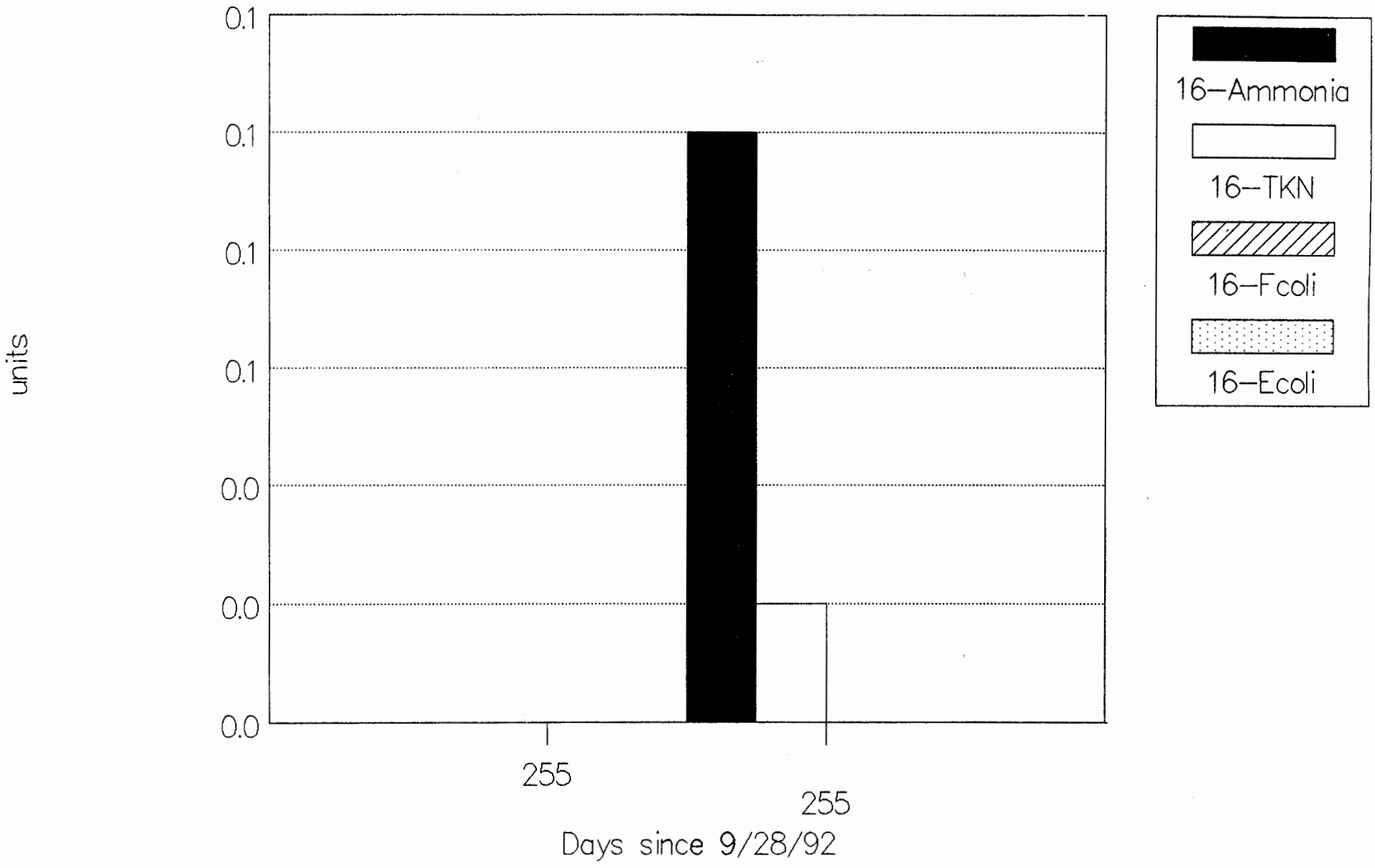
ST-14


3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
units
235
235
Days since 9/28/92
14-Ammonia
14-TKN
14-Fcoli
14-Ecoli

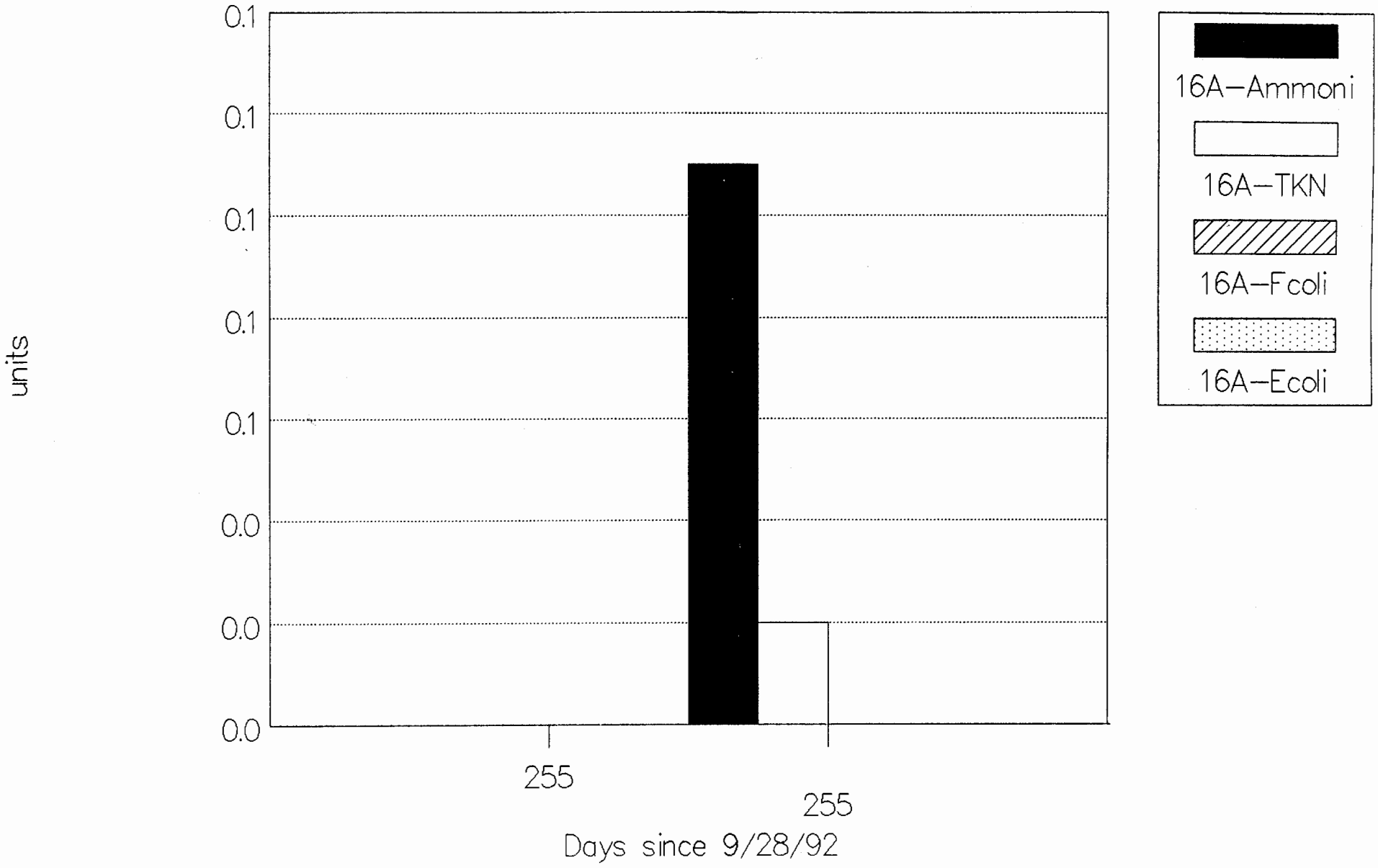
ST-15


120.0
100.0
80.0
60.0
40.0
20.0
0.0
units
235
235
Days since 9/28/92
15-Ammonia
15-TKN
15-Fcoli
15-Ecoli

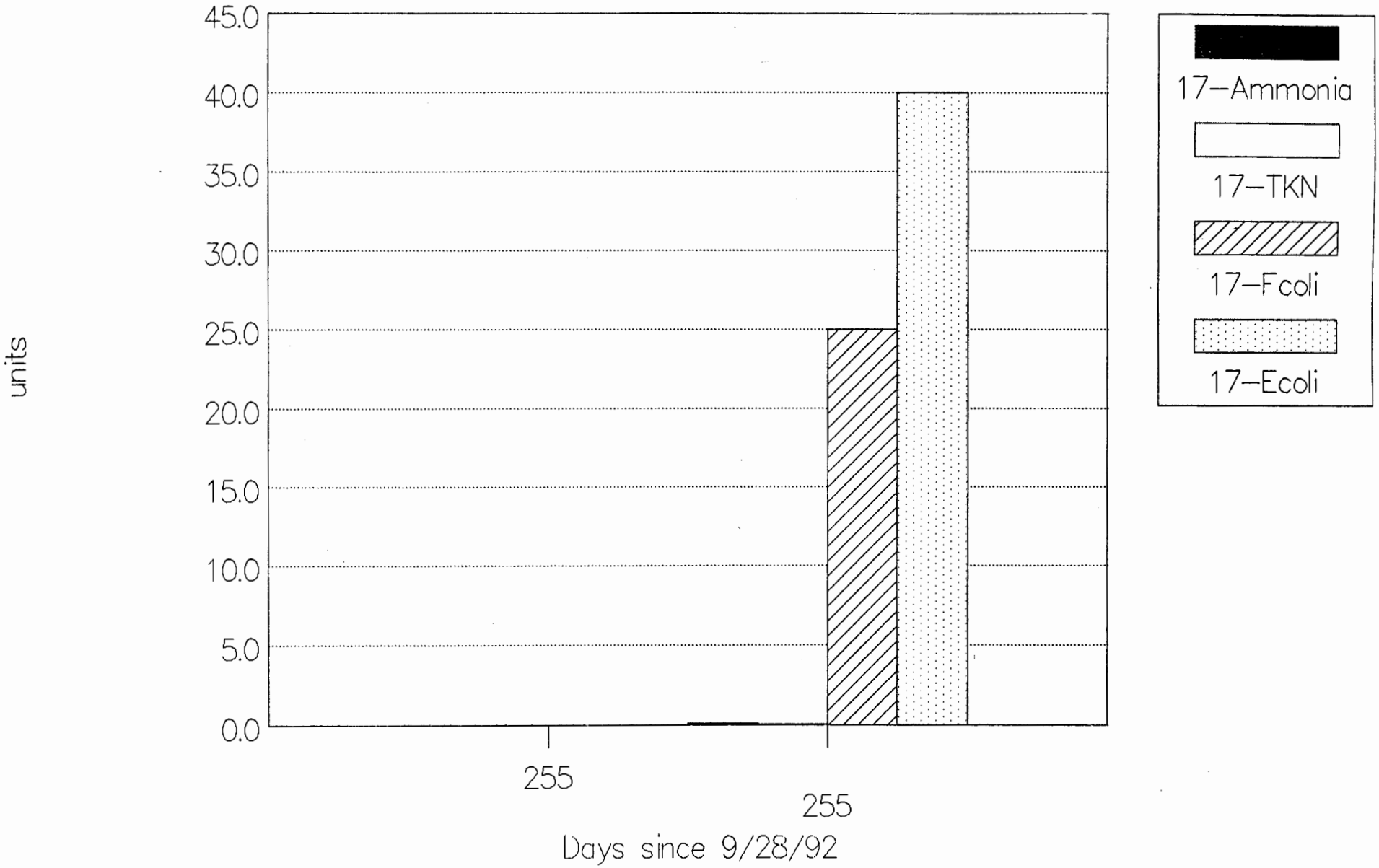
ST-16


0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
255
255
Days since 9/28/92
16-Ammonia
16-TKN
16-Fcoli
16-Ecoli

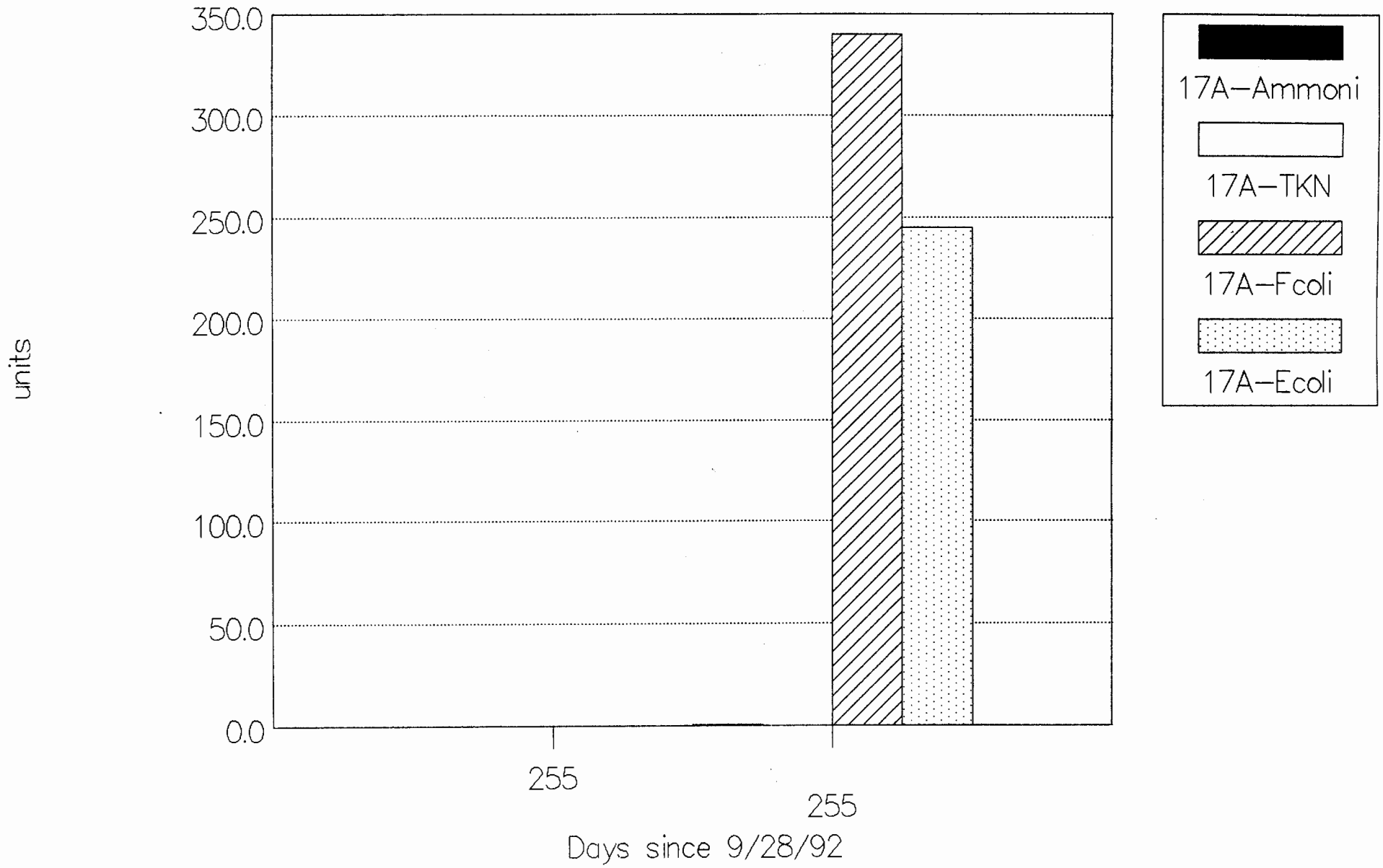
ST-16A


0.1
0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
255
255
Days since 9/28/92
16A-Ammoni
16A-TKN
16A-Fcoli
16A-Ecoli

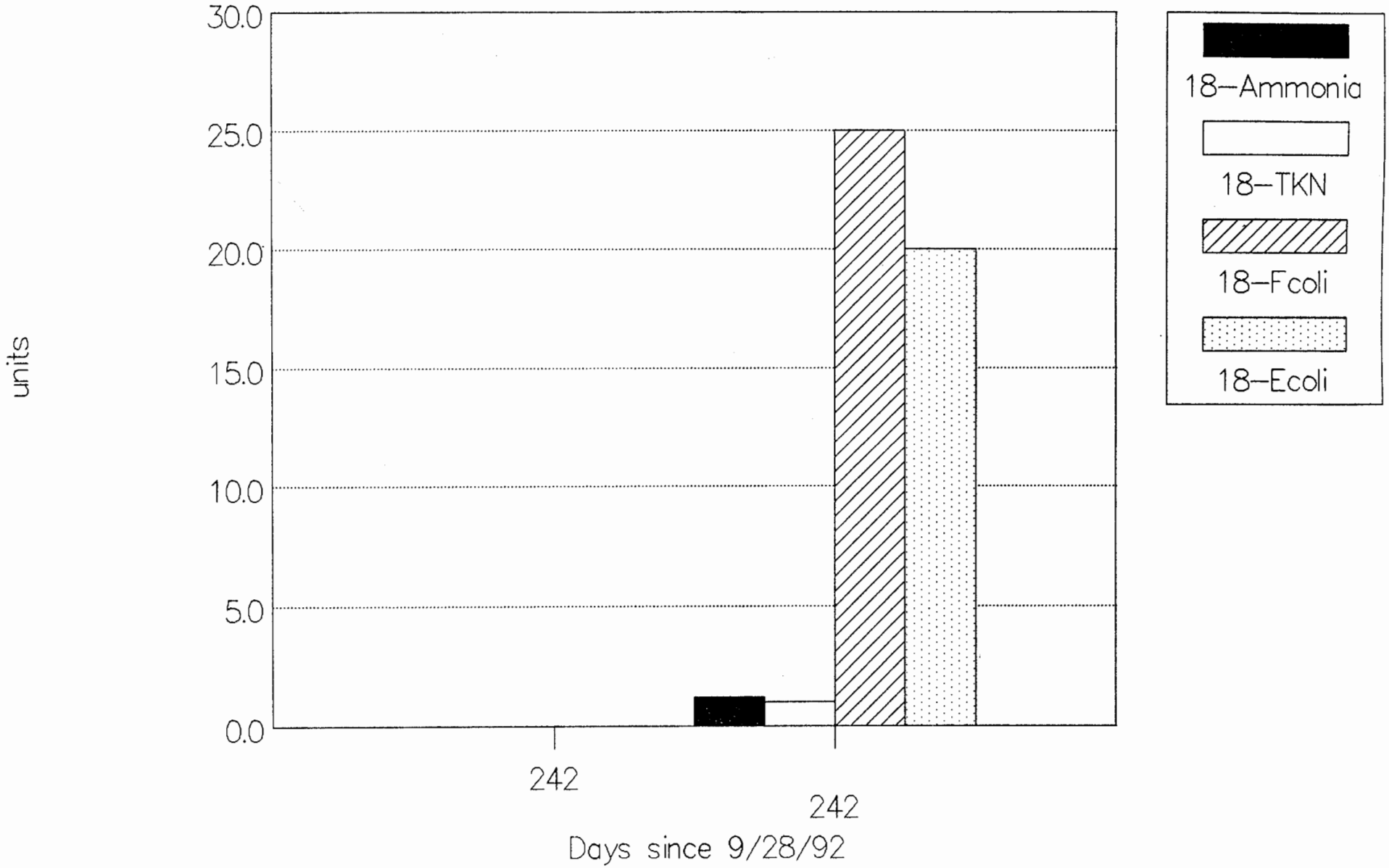
ST-17


45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
units
255
255
Days since 9/28/92
17-Ammonia
17-TKN
17-Fcoli
17-Ecoli

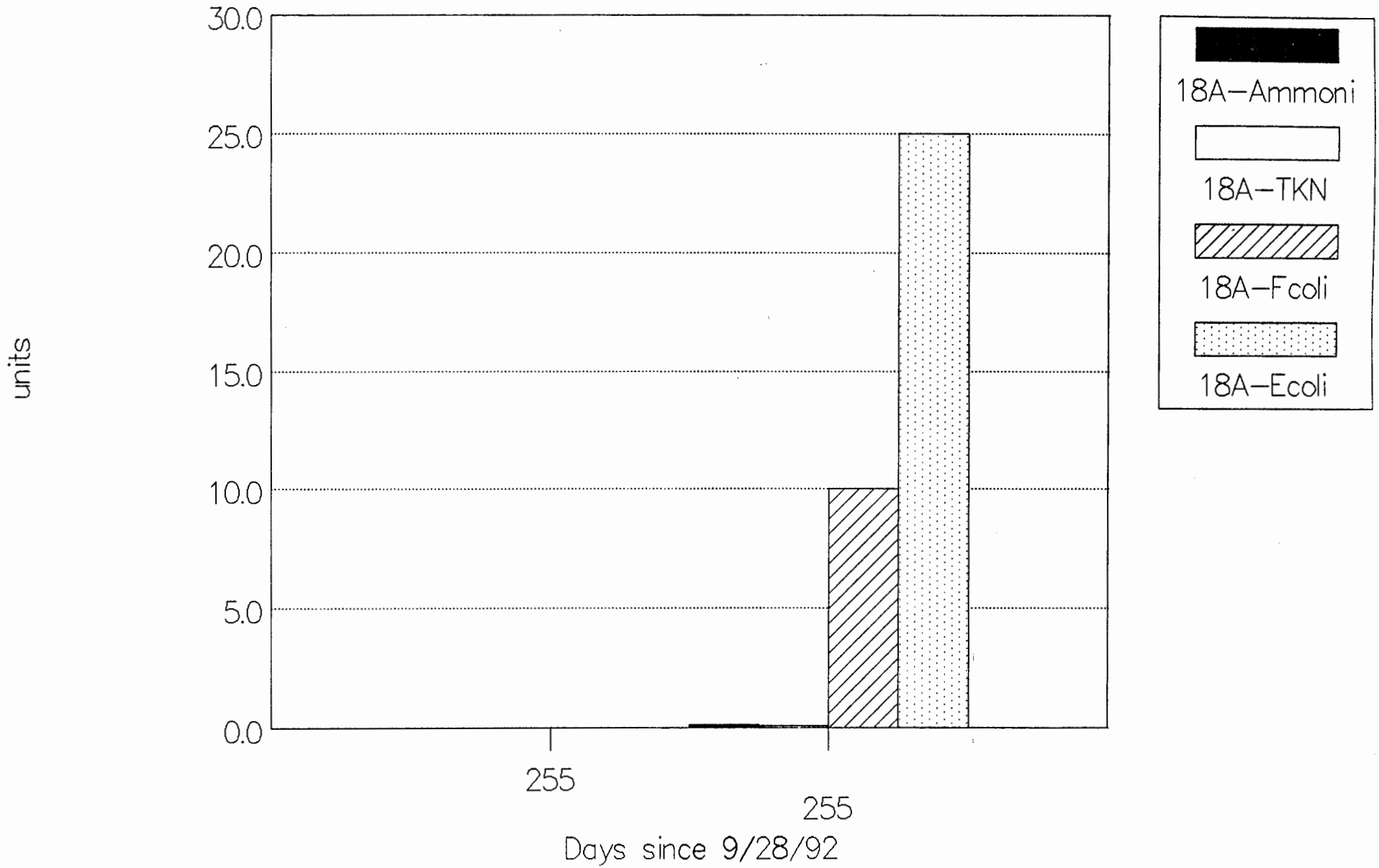
ST-17A


350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
units
255
255
Days since 9/28/92
17A-Ammoni
17A-TKN
17A-Fcoli
17A-Ecoli

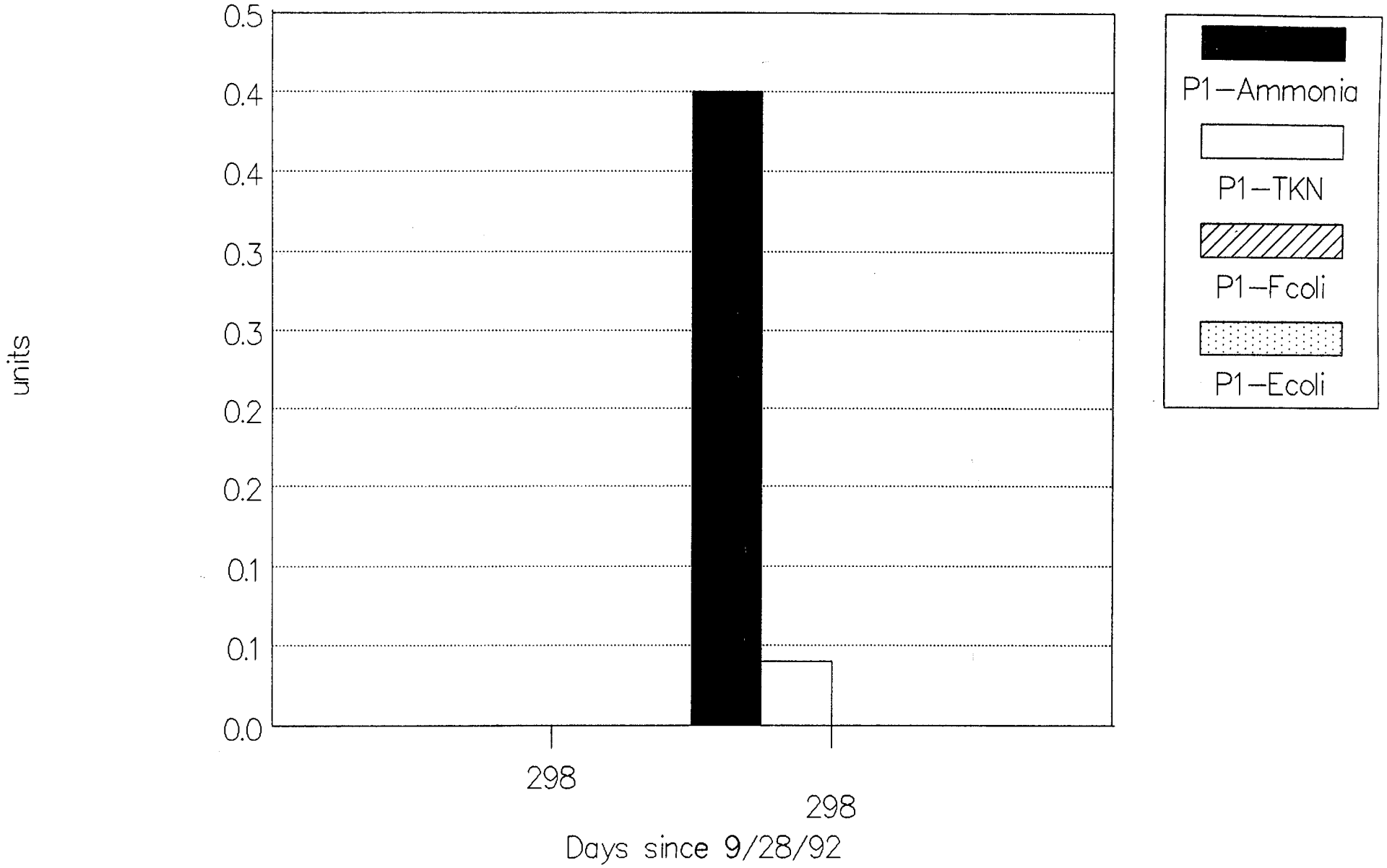
ST-18


30.0
25.0
20.0
15.0
10.0
5.0
0.0
units
242
242
Days since 9/28/92
18-Ammonia
18-TKN
18-Fcoli
18-Ecoli

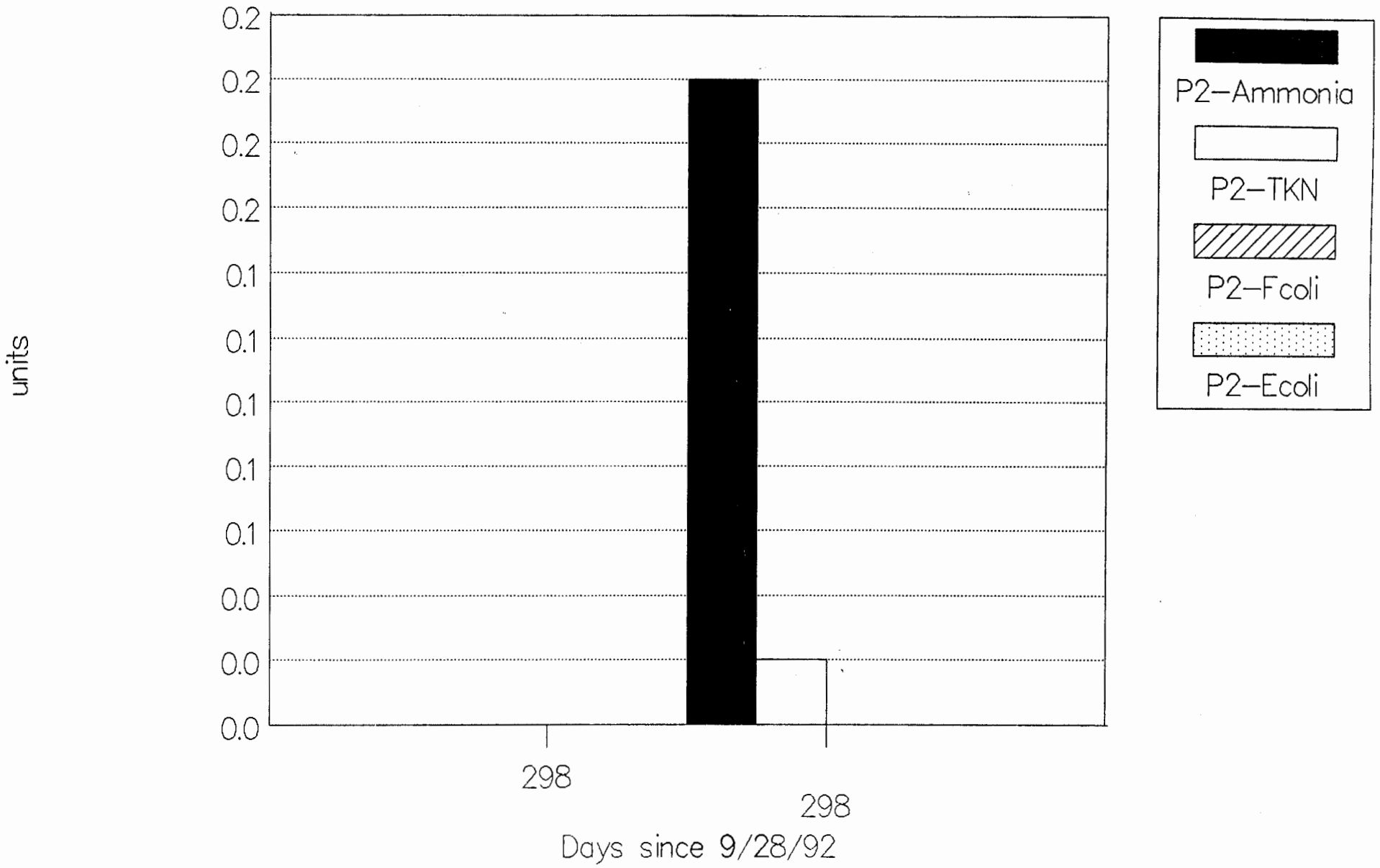
ST-18A


30.0
25.0
20.0
15.0
10.0
5.0
0.0
units
255
255
Days since 9/28/92
18A-Ammoni
18A-TKN
18A-Fcoli
18A-Ecoli

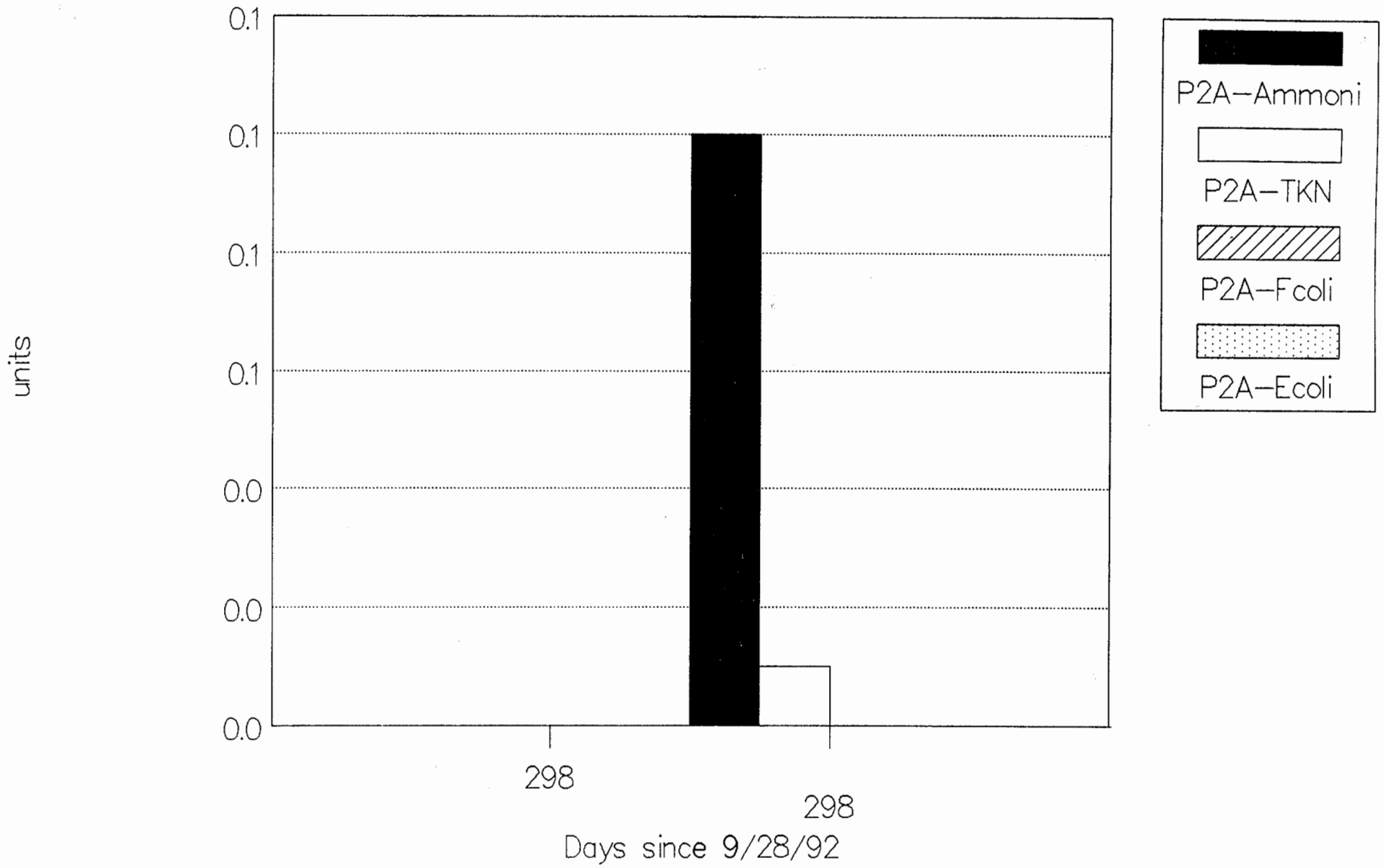
ST-P1


0.5
0.4
0.4
0.3
0.3
0.2
0.2
0.1
0.1
0.0
units
298
298
Days since 9/28/92
P1-Ammonia
P1-TKN
P1-Fcoli
P1-Ecoli

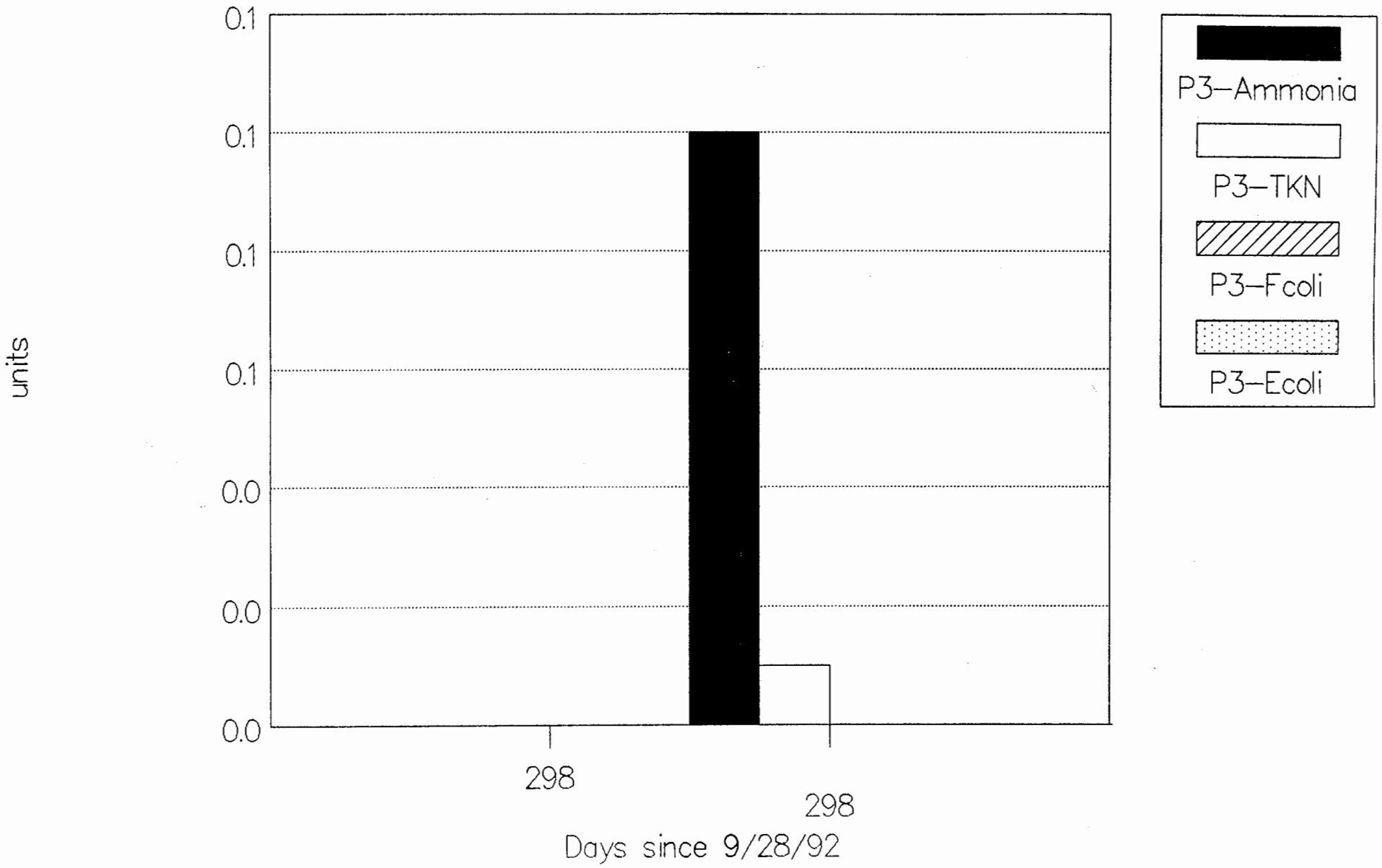
ST-P2


0.2
0.2
0.2
0.2
0.1
0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
298
298
Days since 9/28/92
P2-Ammonia
P2-TKN
P2-Fcoli
P2-Ecoli

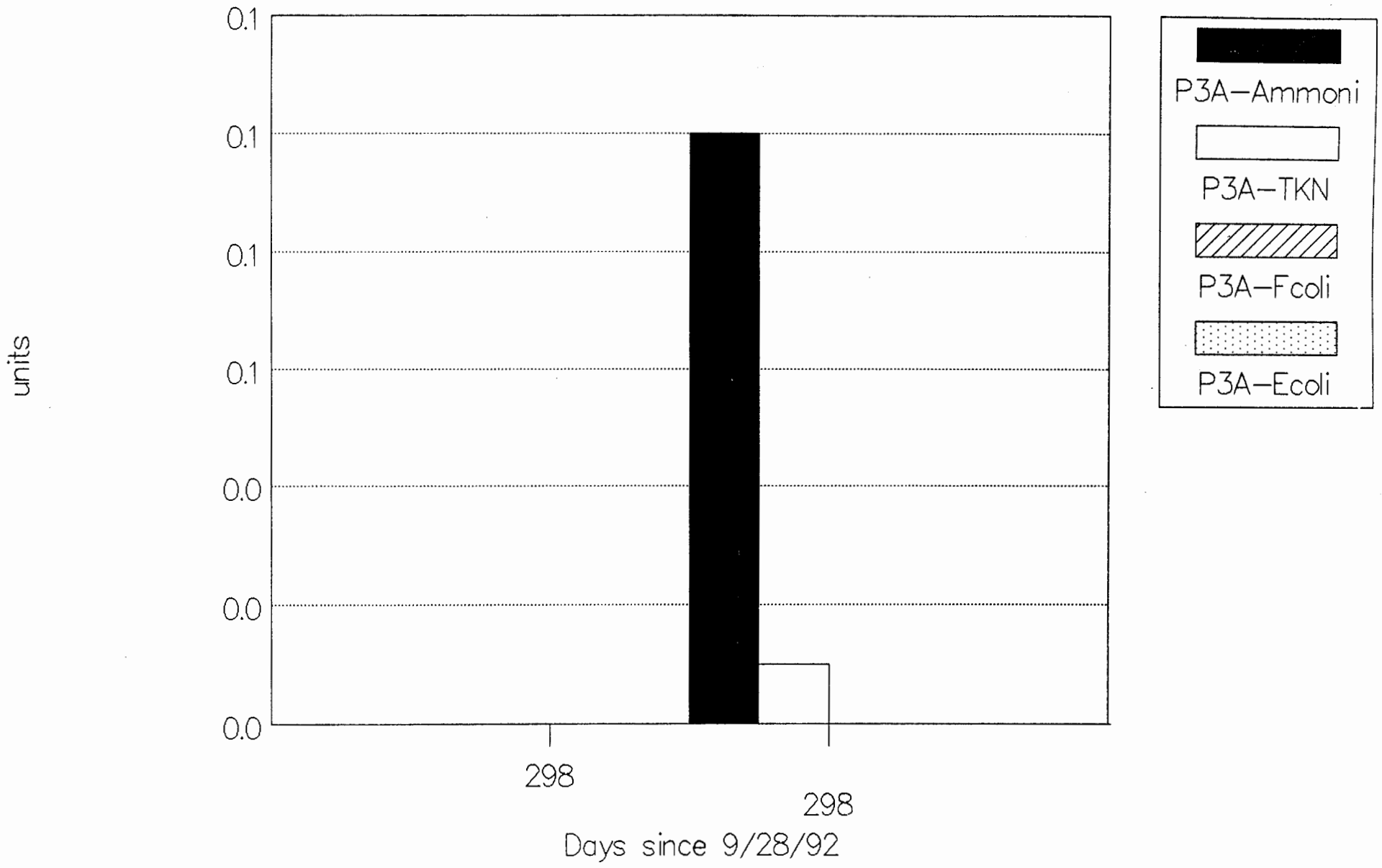
ST-P2A


0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
298
298
Days since 9/28/92
P2A-Ammoni
P2A-TKN
P2A-Fcoli
P2A-Ecoli

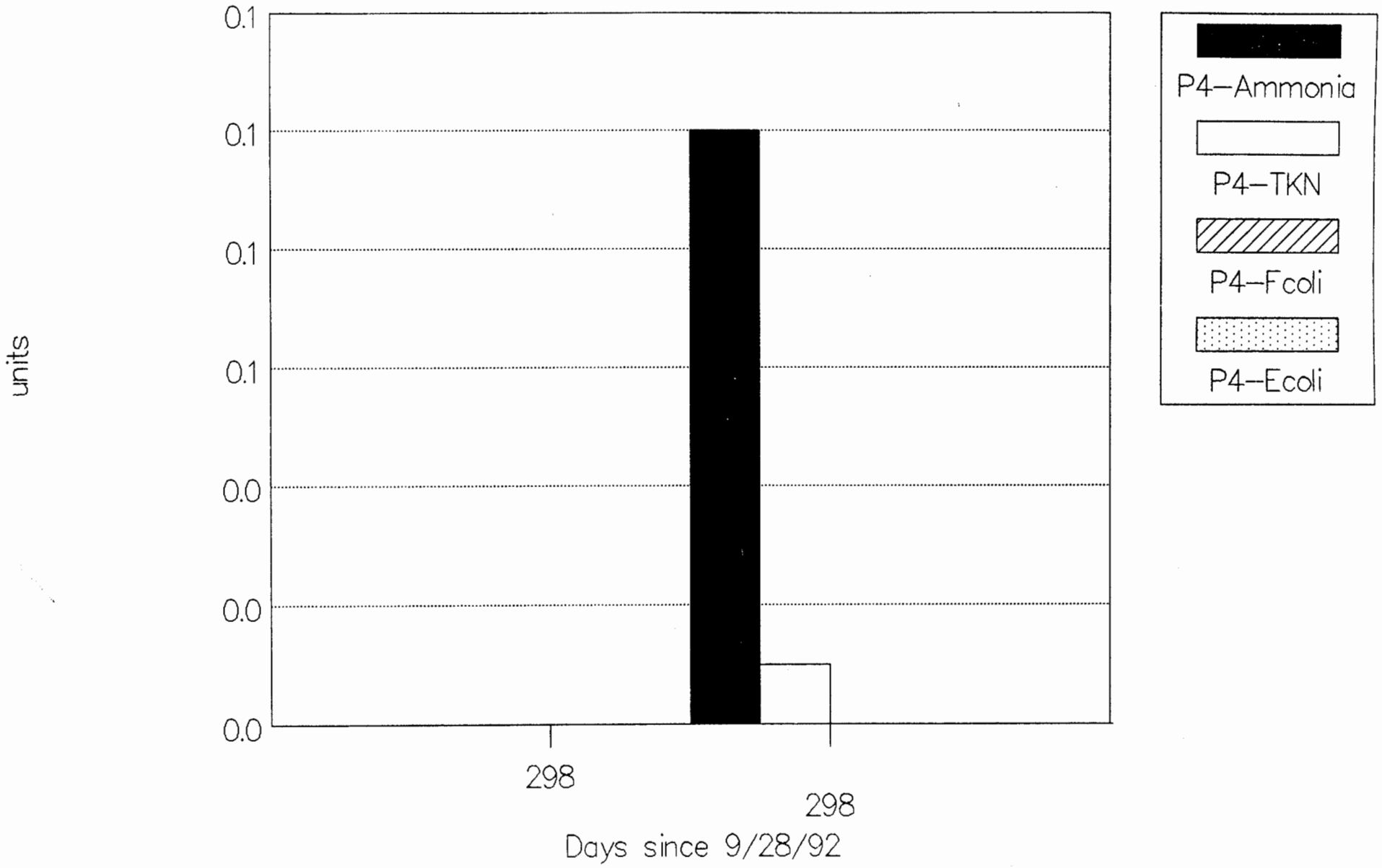
ST-P3


0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
298
298
Days since 9/28/92
P3-Ammonia
P3-TKN
P3-Fcoli
P3-Ecoli

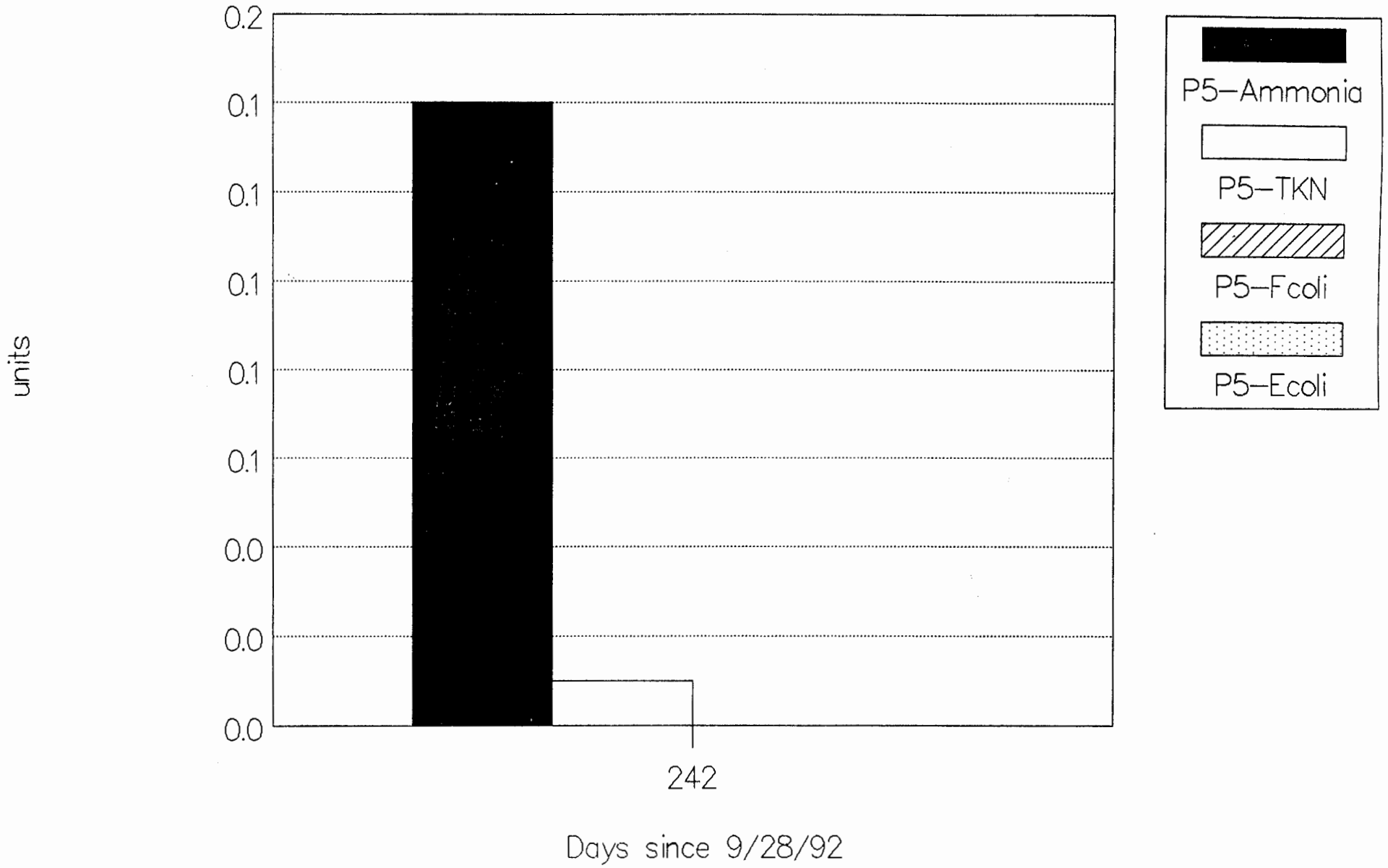
ST-P3A


0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
298
298
Days since 9/28/92
P3A-Ammoni
P3A-TKN
P3A-Fcoli
P3A-Ecoli

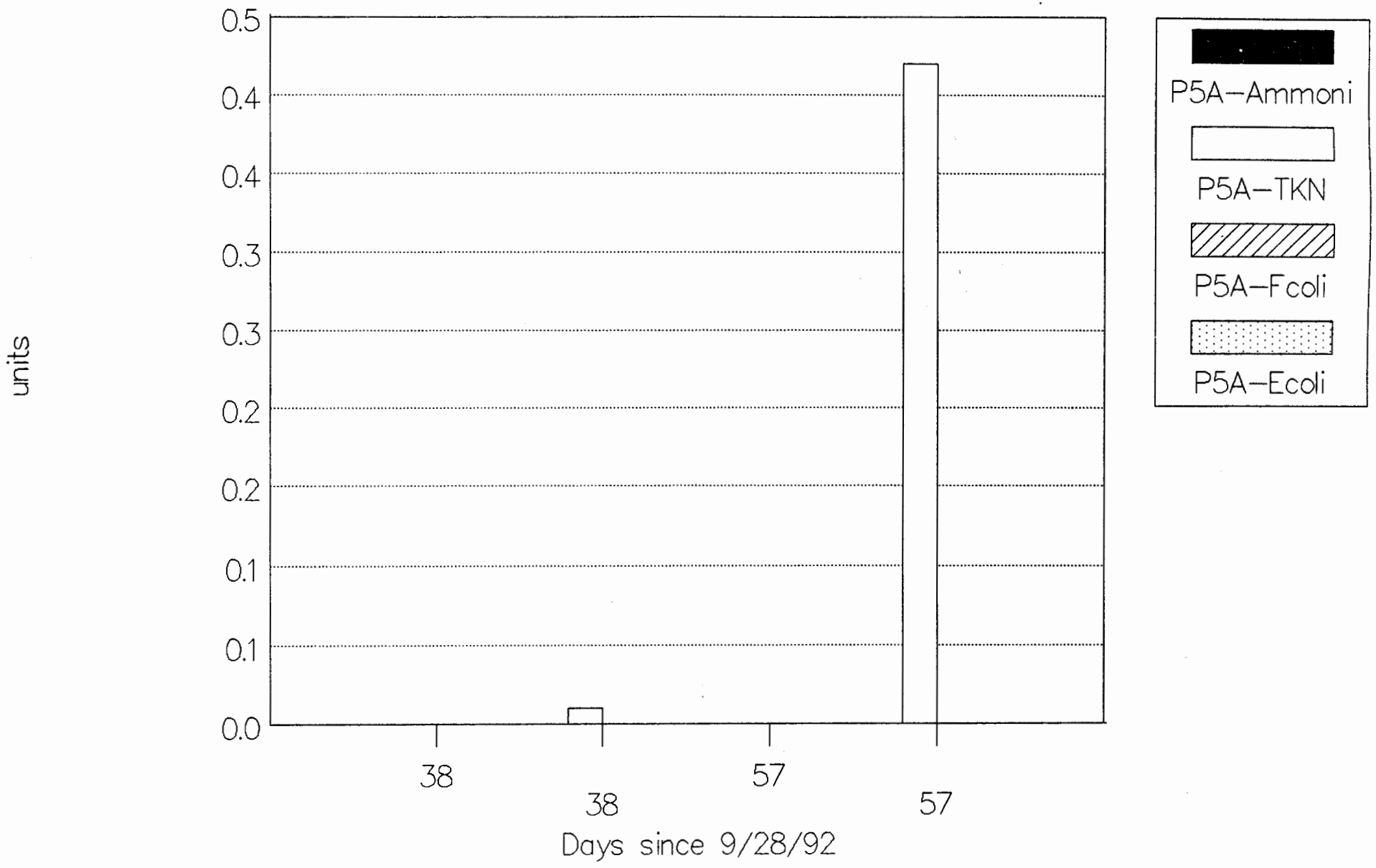
ST-P4


0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
298
298
Days since 9/28/92
P4-Ammonia
P4-TKN
P4-Fcoli
P4-Ecoli

ST-P5


0.2
0.1
0.1
0.1
0.1
0.1
0.0
0.0
0.0
units
242
Days since 9/28/92
P5-Ammonia
P5-TKN
P5-Fcoli
P5-Ecoli

ST-P5A


0.5
0.4
0.4
0.3
0.3
0.2
0.2
0.1
0.1
0.0
units
38
38
57
57
Days since 9/28/92
P5A-Ammoni
P5A-TKN
P5A-Fcoli
P5A-Ecoli